Administration -Report
of the
Forest Circles
in the
Bombay Presidency

$$
1904-1905
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## ADMINISTRATION REPORT

## of the

# FOREST CIRCLES <br> - in the 

# BOMBAY PRESIDENCY̧, 

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## SIND,

FOR'THE YEAR 1904-1905,

No. 1618 of 1905-06.
From

F. GLEADOW, Esquire, Conservator of Forests, Northern Circle;

To
The SECRETARY to GOVERNMENT, Revenue Department. Bandra, 27th September 1905.

## Sir,

I have the honour to forward the Administration Report for the Forest yeaf 1901-05 with its urual appendices.
2. Notwithstanding my best efforts to work within Budget figures, the Revenue is about three-fourths bigger than it should be.
-3. The new orders on Annual Reports appear to contemplate the exclusion of everything but what has to appear in the Report of the Inspector General of Forests, and consequently to entail the omission of events which are nevertheless of the greatest looal interest. This Report is therefore submitted with a lively sense of its shortcomings.

I have the honour to be,
Sir,
Your most obedient Servant, F. GLEADOW,

Conservator of Forests, N. C.

Through the Commissioner, Norteern Division.

## INDEX.

FOREST ADMINISTRATION REPORT, NORTIIERN CIRCLE, FOR 1904-1905.


# FOREST ADHINISTRATION REPORT OF THE NORTHERN CIRCLE. 

CHAPTER I. constitution of state forests.<br>I.-ALTERATION IN AREA.

1. The following table will show the alterations in Forest area daring the year:-


- The area of the three districts of Thána, Surat and the Panch Maháls being 6,832 square miles (Dángs excluded) the proportion of forest is 21.2 per cent., but if the districts of Broach, Kaira and Ahmedabad be included, then the percentage for the Circle falls to about 10 per cent.

2. Nearly the whole area of Protected Forests in the Thána District has been handed over to the Revenue Department for management as village waste under the "Woodland Scheme". It is difficult to know how this should be classed, as it is still legp'ly "Protected Forest", though in effect it is public common, in the manar oment of which the Forest Department has no longer any voice. It is henceforth excluded from the scope of this report. (Appendix Form No. 46).

## II.-FOREST SETTLLEMENTS.

3. Thána District.-The charge of the Forest Settlement Office, Thana, was held by Personal Assistants to the Collector, Mr. G.D. Madgaonkar, I. C. S., from Ist July 1904- to 1st May 1905, Mr. B. M. Kharkar from 2nd May 1905 to 20th June 1905, by the Collector, Mr. Shepherd himself, from 21st to 28th June 1905 and since 29th June by Mr. G. G. Desai,
4. An area of $65 \frac{3}{3}$ square miles has been settled daring the year, of which 63 acres and $33 \frac{1}{2}$ gunthás were acquired by purchase. The outstanding work of land acquisition, as at present laid out, is very little, but it is impossible to estimate the area still to be settled, as in Thána at any rate the whole area will. have to be revised. Attention having hitherto been paid only to the expediency of the moment, the work hitherto done is neither scientific nor practical. Four Forest Settlement proceedings have been heard and completed. One for Forest lands of the Inam village of Asnoli is awaiting the orders of Government. The field work of the "Woodland Scheme" is practically completed but office work remains. (Appendix Form No. 47).
5. Surat District.-The Forest Settlement of Mándvi (40,456 acres) under seotion 19 of the Forest Act was carried out as direoted in Government Notifications Nos. 3134, 3134A, dated 26th April 1904, in the Revenue Department, except in the case of 4 villages-Amalchuni, Karanjwan, Amli and Fulwadi-where there are difficulties,
6. Panch Maháls.-Nothing was done.

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## III.-DEMARCATION.

7. External boundaries. - In the Thána Division 224 miles of boundary were oleared or widened to a width of 15 and 20 feot by the villagers in consideration of half the material growing on the lines. Contractors also purchased the privilege of line-clearing and removing the trees. This system (especially with our very zigzag boundaries) appeared to the writer unduly wasteful of forest soil and future upkeep, though a souree of revenue for the present. He accordingly stopped it, holding that common sense and local conditions should be the guide; wide lines being necessary when the jungle both sides is open, and narrow lines sufficing where dense forest makes them conspicuous. Any greater width needful for service as firelines should be kept covered with trees, but clear of shrubs and grass. In the Panch Maháls Division 133 miles were cleared by contract and one mile departmentally at a cost of Rs. 24. Cairns were erected on the exterior boundary lines over 168 miles at a total cost of Rs. 2,540 or nearly Rs. 15 per mile, as against 224 miles costing Rs. 5,337 at Rs. 24 per mile in the previous year. This is a reduction, but the rates of Rs. 13, 20 and 23 per mile in Central and South Thána and Panch Maháls are still high enough. Of course, the most important factor is the straightness or otherwise of the boundary, which decides whether cairns shall be 4 or perhaps 40 per mile. About 174 miles in length remain to be demaroated in the five divisions. Repairs to old cairns were effected along 1,534 miles at a cost of Rs. 1,456.

The cairns used here are large or small, round or square, as desoribed in para. 30 of the Central Circle Report for 1895-96. 'Lhey cost from 6 annas to Rs. 2 each, according to the plenty or scarcity of stones, or on the arerage 8 annas to 1 rupee. In the table given under this head in former reports, it appears that the same length of line must often have appeared in both columns, first, when it was "cleared," and again as "special marks" when the cairns were built.
8. The work- of demarcating boundaries by stone cairns is lass than thrat of last year by 56 miles, but the average per mile is satisfactory. The work was already completed in North Thána Division, but 4 miles of newly added forest were demarcated. So also in the Panch Maháls, new cairns in various ranges have been erected where found necessary. In the Northern Circle 174 miles still remain to be demarcated by cairns.
9. The total expenditure incurred on demarcating boundaries by new cairns amounted to Rs. 2,565, and that on repairs to Rs. 1,456, against Rs. 5,348 and Rs. 1,432, respectively (Appendix Form No. 48).
10. The discrepancy criticised by Government in Resolution No. 3860, dated 11th May 1905, in the Revenue Department, about the high rate of expenditure on demarcation by iron tie-bars was investigated and found to be a misunderstanding as stated by the Collector, but it is concluded that in comparing the cost of tie-bars with the cost of cairns as boundary marks, it is of course necessary to compare the cost of one tie-bar with one cairn as there may be only 4 or 100 or more boundary marks in a mile of boundary, according as the boundary is straight or crooked. The cost of a tie-bar mark is put at Rs, 1-8-0. They are said to be more durable than cairns.

- 11. The high rate of expenditure in the Panch Maháls, South Tbína and partly in Central Thána is due chiefly to the scarcity of obtaining stones near the work.

12. Internal boundaries-In Hálol Range of the Panch Maháls Division, 1,171 stones and 250 earth cairns were erected at a cost of Rs. 209 in demarcating blocks and coupes by Working Plans Surveyors. The first coupe of each block in Kálol was demarcated. In Thána District 263 ooupes were demarcated over an area of 13,768 acres, or $21 \frac{1}{\frac{1}{s}}$ squaro miles, by 604 cairns and 23,875 stonos at a cost of Rs . 536 . The length of these lines a mounted to $298 \frac{1}{2}$ miles.
13. In this Circle external demarcation is done by clearing lines varying, in width from 5 to 100 feet (Native State boundaries) and placing at all angles or at visible distances, either stone cairns, earthen mounds and posts where no
stones are obtainable, or old iron railway ties crowned with two bits of white' board crossed. Internal demarcation consists of roads for extraction, inspection, and fire lines, or narrow coupe boundary lines with a stone sunk at every chain longth. The latter lines are not alrays kept clear, the stones romaining recoverable for 10 years or more if good linseed oil and red load are used on them.

## IV.-FOREST SURVEYS.

14. Surveys on the scale of 8 inches $=1$ mile were carried on through the agenoy of the Superintendent of Forest Surveys over an'area of $\mathbf{1 4 6}$ squaro miles in Central and South Thána Divisions at a cost of Rs. 18,022 as compared with 76 square miles at a cost of Rs. 10,691 in the previous year: as. the work was carried on in the healthiest part of the Thána District, the area surveyed was double that of last year (Appendix Form No. 49).
15. The total expenditure under the hoad of "Constitution of State Forests " amounted to Rs. 32,595.

## CHAPTER II.

## MANAGEMENT OF STATE FOREITS.

## I.-REGULATION OF MANAGEMENT.

(a) Preparation and Control or Regular Working Plans.
16. Preparation.-Working-plans for 23 square miles under the Selection method in Talasri, and for 50 square miles under Coppice with Standards in Mokhada Forests, received the sanction of Government in their Resolutions Nos. 3198, 3199, dated 17th April 1905, and the cost incurred over their preparation was Rs. 6-8-0 per square mile (Appendix Form No. 50).
17. Control.-New rules have been framed by the Conservator for the heavier reservation of standards, as it is evident from observation that the Stored Coppice forests will be insufficiently restocked at the end of the rotation of $40^{\circ}$ years wherever offences are rampant or soil poor.
18. In the Panch Maháls Division, the sanctioned Working Plans were kept in abeyance, owing to the drought of 1901 and subsequent years, and temporary Working Plans were in force. This being the 4th year of these provisional plans, dead and dying trees wers cut out of the 4th quarter remaining in Godhra and Kálol Ranges, comprising 100 coupes covering an area of 15,050 aćres. In Hálol and Doliad Ranges, the 3rd quarter was under felling and the 4th quarter of 9,142 acres was marked. In all, the dead and dying trees over 39,779 acres were felled.
19. Estimate of area fur which Working Plans are still required and list of plans expiring toithin 3 years.-Form No. 50 will show that there are still 723 square miles and 348 acres yet to be brought under Working Plans, No plans will expire within the next three years except those alluded to in the preceding paragraph.

## (b) Preliminary Working Plan Reporis.

20. The Working Plan (mentioned last year) for the forests of Mándvi Range in Surat Division, covering an area of 41,847 acres, was sont up and was returned for alteration. Proposals for the revised Working Plans for Godhra and Kálol Ranges of the Panch Maháls Division have been submitted to Government for sanction.

## (c) Plans of Operations.

21. There were no important deviations to report.

## II.-COMMUNICATIONS_AND BUILDINGS.

## (a) Roads and Bridges.

22. The expenditure on new works of a permanent nature amounted to Rs. 3,978, out of which Rs. 3,789 were spent on completing 22 miles of Forest roads in the Dang Ranges of the Sarat Division. Two miles of road over
*imilarly rugged country were mado through a seoluded ravine up to the Yeur plateau in the S.lsette Range of the South Thána Division.
23. Repairs to existing roads and wells were made at a cost of Rs. 2,449 and Rs. 136, respectively, out of whioh Rs. 1,783 were spent in the Dáng Ranges of the Surat District.

## (b) Buildings.

24. An amount of Rs. 16,722 were spent'over buildings and Rs. 315 on a well of a permanent nature, out of which Rs. 10,549 were expended on buildings in the Dángs.
25. Repairs to existing bungalows, rest-houses and forest posts of guards cost Rs. 1,044,
26. In addition to the above, lands were acquired by the application of the Land Acquisition Act, for Depst sites at Badlápur and Khadawli in Kalyán Range of the South Thána Division, at a cost of Rs. 906.
27. The total expenditure under this head amountod to Rs. 24,614, out of which Rs. 21,015 were on new work and the rest on repairs (Appendix. Form No. 51.)
(c) Miscellaneous Work.
28. No miscellaneous works were undertaken exoept the clearing' of wells in the Dángs at a cost of Rs. 136.

## III.-PROTECTION OF FORESTS.

## (a) General Protrction.

29. Forest offences of all natures reported during the year were 2,802, or an increase of 970 over the average of 1,832 cases for the past 3 years. The classification of the offences is as follows:-

| I.-Injary to forest by fire | Cates of 180405. |  | Average of past 3 years, |
| :---: | :---: | :---: | :---: |
|  | $\cdots$ | ... 762 | 601 |
| II.- Unauthorized felling or removal |  | $\begin{aligned} & \text { of } \\ & \ldots \\ & 1,221 \end{aligned}$ | 946 |
| III.-Unauthorized grazing | ... | 649 | 207 |
| IV.-Other offences | '"' | 170 | 78 |
|  |  | 2,802 | 1,832 |

The increase of offenoes under head (I) is ohiefly due to drought and famine in the Panch Maháls Divison. Under (II) and (III), the increase merely means that more cases have been reported and does not show any increase of crimé. There always have been, and still are, far more offences than are reported, and the lower figures of a few years back are due rather to administrative treatment than to any great difference in the amount of crime. Under (IV), the increase is due to petty encroachments for cultivation, irregularities in transit of timber, \&c.
30. There were 1,543 compounded cases, including 114 pending at the close of the last year. Out of these, 1,352 cases paid compensation and 107 were let off with a warning, 84 remained pending. Compensation to the amount of Rs. 2,227 was recovered, as compared with R.s. 2,039 in 1,195 cases of the preceding year (Appendix Form No. 52.)
31. Prosecutions were 223 in number, exceeding the average of the previous three years by 45. There were 91 cases pending at the close of the last year. In all, there were 233 convictions and 49 acquittals, 32 remaining on band. The number of offences depends very greatly on the attitude of the magistracy. Mr. Orr, the late Collector of Thána, issued warnings to Subordinate Magistrates in view of paragraph 20 of last year's Administration Report, and it is satisfactory to note that the old sympathetic attitude of Magistrates towards forest offenders is passing gradually away. The result is that offences are becoming fewer in the jurisdiction of those Magistrates who have profited by the warning. Still offences are rising (or rather the records thercof are) for offences are in many places as rife as ever, and no ohange in public opinion is jikely to take place until all Magistrates treat a forest offence like any other.
32. There were 1,150 undetected cases during the year against an average of 770 of the previous three years, but cases of forest fires form more than half of the total number. Cases of unauthorized cutting were 304 against an average of 230 of the last three years, but these figures are of trivial importance considering the forest area of the circle and the real number of petty offences undiscovered.
33. There were four cases worth special mention. The first two were in the Panch Maháls Division in connection with fraudulent use of a Government hammer in Blocks Nos. VIII and IX of Godhra Range. In the first, the accused, a Ghanchi contractor, got off, as the witnesses changed their story when before the Magistrate. In the second, evidence being insufficient, another Ghanchi paid a small compensation. The third case was a forest fire in which the forest was burnt in order to facilitate fellings of dead teak, and the contractor's two servants were fined Rs. 85. This was a case in which the maximum imprisonment should have been awarded in addition. The fourth case concerned some Charans, who were prosecuted for grazing their cattle at night, convicted and imprisoned.

## (b) Protection fromi Fire.

34. Prosecutions were fewer by 32 and 21 as compared with last year and the average of the last three years, respectively. The measures adopted for protection from fire consist of : the entertainment of special fire patrols; the maintenance of a system of external and internal firelines ; in Surat and Panch Maháls the erection of observation posts on hill tops, combined with an excellent system.of flags and alarm-drums; the issue of numerous proclamations, and the distribution of turbans to headmen. In the Mándvi Range of the Surat District the Patels and people co-operated in a most praiseworthy manner, with the result that, except 2 or 3 trifing fires while fire-tracing and clearing lines, there was not a single fire in an area formerly burnt throughout. The Dángs are still burnt from end to end, but in consequence of the efforts made to teach the people, it is said that these Ranges are only burnt once or twice instead of twice or thrice. It is the practice to exclude the area of the Dangs from the returns of fire protection.
35. In the Panch Mabáls Division, special fire-watchers were entertained with drums, \&c., but the year was a disastrous one owing to the effects of drought.
36. The area of the oircle being 2,145 square miles, 519 acres, efforts were made to fire-protect 1,446 square miles, 493 acres. Of this area, 192 square miles, 227 acres were reported as burnt, leaving 1,253 square miles, 206 acres unburnt. The percentage of success attained is $86^{\circ} 7$ and the cost was Rs. 103 per square mile of the area so protected. The expenditure on fire conservancy was Ris. 12,978 (Appendix Form No. 53).
37. The origin of the fires is referred to in the table, as qualified by the remarks following :-

|  | Divison | Fires originating in Departmental tire conservancy operations |  | Fire orossing outer firetraces |  | Fires due to carelesaness or acendent by outsiders or onknown causen |  | Fires originat ing from intention or / malice |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. of fires. | Acres, | $\begin{gathered} \text { No. } \\ \text { of } \\ \text { ncres } \end{gathered}$ | Acres. | $\left\{\begin{array}{l} \text { No. } \\ \text { of } \\ \text { firese } \end{array}\right.$ | Acree. , | $\begin{array}{c\|c} \text { No. } \\ \text { of } \\ \text { fires. } \end{array}$ | Acres. | No, of fires. | Acres. |
| 1 | North Thána |  |  | 4 | 85 | 75 |  |  |  |  |  |
| 2 | Central Thána | 6 | 614 | 30 |  | 50 | 8,460 | $\cdots$ | ** | 79 | 8,545 |
| 3 | Sonth Thána | 2 | 97 | 10 | 1,658 | 77 | 5,146 | 3 | \%30 | 86 | 7,418 |
| 4 | Surat -... | 1 | 25 | ... | 4 | 27 | ,0 | 3 | 233 | 92 | 6,825 |
| 5 | Panch Maháls ... | 21 | 776 | 73 | 15,274 | 379 | 68,03 | 2 | 106 | 30 | 15,765 |
|  |  |  |  |  |  |  | 63,30 | 1 | 124 | 474 | 84,554 |
|  | Total, N. C. | 30 | 1,512 | 117 | 17,484 | 608 | 103,648 | 6 | 463 | 761 | 123,107 |
|  | 624-3 |  |  |  |  |  |  |  |  |  |  |

Only elear cases are putdown in the table as intentionsl, but it must not be forgotten that many of the fires crossing outer lines are carefully planned to do so. As for those classed as accidental or anknown, at least 80 per cent. of them are surely intentional. Otherwise, it would not have been possible to prevent them completely in one stretch of country.
38. A very remarkable development of recent growth is the catehing of incendiaries. The Forest Department never had any great success in this line, (and could never expect any) till Collectors and their subordinates took energetic measures to show the villagers that fires caused them loss and trouble. Now it is not that the Guards exert themselves more than before, but that the villagers hand up men whom they would formerly have concealed. They are learning to dislike men who place their privileges in jeopardy.

## (c) Protection from Cattle.

39. The percentage of forests open to grazing is $77 \cdot 2$, and that open to grazing and browsing as well is $31 \cdot 5$ per cent. of the whole area of the cirole (Appendix Form No. 51).
40. The number of cattle impounded was 13,322 against 8,043 of the last year, and an average of 7,287 for the last three years. Out of the total number of cattle impounded, there were 5,840 sheep and goats against 3,176 last year. In the Panch Mahals alone, there were 4,293 goats impounded. In Surat Division 797 gqats were impounded, or nearly half of the total
41. There were 27 cases of prosecution for illegal grazing, none being pending from last year. In 22 cases convictions were obtained, 2 cases were acquitted and 3 remained pending at the close of the year. The Magistrate of Bassein in the Thána District disposed of one case of grazing by fining an offender Bs. 2 for grazing 11 goats in a closed portion of Pelhar-Shirgaon, i.e., 12 annas less than the pound fees would have been. So also in the Panch Maháls Division cases of goat grazing got off with very small fines even in cases of 300 or 400 sheep and goats at a time. Under Government Resolution No. 6562 of 27th August 1904, offenders are now given the chance of paying the feesinstead of being impounded or fined. This will save trouble on all sides, and it is anticipated that when the people understand it, nobody will pay fees till caught grazing. The ponishments awarded by Magistrates are often inadequate, but there is a decrease in the real amount of grazing and other offences compared with my former experience. The difference can only be explained by two reasons, firstly, the loss of cattle by famine, secondly, the decreasing tendency to award penalties of a nominal nature. The policy of former days, of never interfering with privileges on any account, has also given away to other views, so that rillages where damage is rife can no longer count on assured impunity.
42. The number of grazing offences is rising again and must rise as the number of cattle increases. When pounds are several miles off, as they nearly always are, it is doubtless often a question in the Guard's mind, whether he should let off the trespassers, or abandon his forest to those waiting for the opportunity, while he undertakes the troublesome and sometimes dangerous task of driving other people's cattle a long journey to a strange place. Pounds are more numerous than formerly, but every village ought to have oue, at least near forests.

## (d) Protection agatnst injuries prom natubal causes.

43. Climber cutting was carried on in all divisions by the Forest Guards at no cost except Rs. 25 in South Thana, where (as elsewhere) it was beyond the power of Forest Guards to clear the same unaided. At the same time in no case were the cleaningsin coupes, prescribed by the Working Plans, attempted for want of money in the Budget.. Many coupes becomo an impenetrable mass of Cowitch creeper. Attempts were made to clear some coupes in November when the writer first went into camp, but it was then too late, as coolies would not face the stinging pods. Arrangements have been made to attack the work next year in September. Larva attacked the teak leaves pretty generally but not to sny
dangerous extent. The devastations of locusts and the inadequate rains caused a general scaroity of seeds of all kinds except perhaps khair, Soymida and Diospyros, locally.
44. In the Panch Maháls Division sharp frosts in January damaged teak saplings and young growth. The only remedy is to reserve heavily in low-lying places. Soft-barked trees were gnawed at the base by rats and hares and the damage done by the former was the worst, as they completely ringed the tree for 2 inches from the base. The Cookchafer grub (probably a Melolontha) again attacked the teak plants. Many were killed by digging the beds with a 3 -pronged fork. Fair success was observed in killing grubs with an emulsion of kerosine as recommended by Mr. Lefroy, Entomologist to the Government of India. If the pest again appears MoDougall's insecticide is to be tried, together with old methods which have obtained success.

## IV.-SYLVICULTURE.

(a) Natural Reprodoction.
4.5. By seed.-Natural regeneration by seed is far from satisfactory whether the statement be taken as referring to teak or to other species. It is true that there are now in many places teak plants were none existed ten or twenty years ago, and it is also true that these plants are mainly due to the increasing effectiveness of fire protection. But generally.they are not the kind of plant that the word seedling conjures up. Most often they are poor things showing signs of having been repeatedly burnt back or perhaps cut back for rab. Such things can hardly be called seedlings, not for the sake of hair-splitting, but because they lack the essential virtue of a seedling, its purity of origin and soundness of constitution. Neither have they the robust vigour of coppiceshoots. Some other officers in this circle have made more optimistic reports whith I am quite unable to endorse. Natural regeneration by seed is a branch of study which provides an enormous field for enquiry and specially interests the writer, but much detailed knowledge of the subject has yet to be acquired. For regeneration to be good, it is necessary that there should be seedlings existing before the coupe is felled, i.e., produced in open forest, but it is not to be expected that the seed should germinate freely and live when fires, cattle and ráb-collectors reduce the soil to a hard bare surface devoid of humus and offering poor lodgment to seeds. In criticising the condition of regenerated coupes, it is well to see what they were before the felling. It will be generally found that the coupes which allow us to congratulate ourselves were originally good forest. The reverse of the picture will show that originally poor coupes are now worse covered, and blanks extended, through cutting bad trees "to improve the growth" when there are no seedlings to replace the stumps that die, nor anything else to shelter the soil, keep down the grass, and give seeds a chance. Detailed instructions have been issued on this point (paragraph 17).
46. In the attempt to ascertain the natural conditions of regeneration, the following seedlings were found growing up through tall (say 8 feet) dense Strobilanthes, viz., Grewia, Briedelia, Butea, Kydia, and, near the outside, teak. On steep exposed bare spurs and ridges, over grass 2-4 feet high, were found flourishing Pterocarpus marsupium, A. catechu, Dalbergia latifolia, Terminalia tomentosa, Anogeissus latifolia, Albizzia lebbek.
47. By coppice. -This kind of regeneration is generally good, supplemented as it is by suckers, (frequently advance-growth) in the case of various species. With good forest on good soil no doubt the reproduction is excellent, but here again I differ from some, for I hold it folly to cut a bad tree in the hope of obtaining good coppice, when that tree is well isolated in grass. As often as not the stump dies leaving the soil more exposed than ever.
48. No steps were taken for the improvement of natural regeneration, but there has been a suggestion of thinnings in the oldest coupes, which are now about 17 years old. The object would be partly to obtain advance-growth, but principally to augment the yield or its value. They are not really necessary, whereas oleanings in the younger coupes are, but we have hitherto been unable to execute them. Thinnings should not be made earlier than 5-10 years before the felling.
49. The effects of better protection are very marked in those places where protection has really improved, vide paragraphs $31,38,41,45$.
(b) Artipicial Reproduction.
50. Regular Plantations.'-There are none in this Circle.
51. Taungya Plantations.-The system of creating plantations along with field crops does not obtain here.
52. Cultural Operations.-In North Thána no nurseries were formed, the establishment being fully ocoupied with emergenoy contracts, such as windfalls and royalty teak in private lands.
53. In Central Thána, 8,500 seedlings of teak, ain, \&o, were raised in Wada -nursery, 1,000 were planted out and reported good. The cost was Rs. 139. Some 7,000 seedlings put out in Alman closed forest last year are said to be doing well. By direct sowing in pits and holes some 25,000 seedlings are said to have been obtained at a cost of R. 588. Grass hoods were placed over each hole. This treatment is not one that can be adopted on any large scale. Some 9,000 seedlings are said to have resulted from sowings in pits by Beat Guards without expense. Various kinds of seed were broad-casted on sites of charooal kilns, \&o. The writer pointed out that the system of petty pit-planting could never produce any adequate impression on the large areas needing improvement, and has since heard that in one range over 2,000 aores of blanks have been dibbled on Kohoj Fort, Murumba Hill and Asnas forests of Blocks VII and IX and other closed coupes.
54. South Thaina.-In Mulund nursery, 2,438 plants were reared and transplanted in the adjoining forests at a cost of Rs. 22. Coupe No. 20 of Shimpowli was cleared and sown with Sind bábul, which is doing well. The same seed sown in Borala of Tánsa forests has germinated profusely.
55. Surat.-Two nurseries were maintained at Delwadi and Welwach, producing 7,040and 28,934 plants, respectively, at a cost of 920, and Rs. 170 were spent in feeding the bullocks of the Welwach nursery. The plants reared were transplanted into forests of the Bulsár-Chikhli Range and result was generally good.
56. Panch Mahals.-The Godhra nursery was kept up throughout the year and worked very successfully. The number of plants sent out into the jungle was 66,994 . The total cost came to Rs. 1,413 inclusive of Rs. 297 for the upkeep of nursery. The area planted up was 156 acres in 6 different plantations in Godhra, Kálol, Hálol and Dohad Ranges. The average cost for 100 plants was Rs. 1-15-6 against a cost per hundred of Rs. 2-8-0 last year.
57. Graft mango plants to the number of 37 were prepared in the Godhra nursery and given out free to Patels of villages in the district.' There is much competition amongst the villagers to obtain these good kinds.
58. The total expenditure on plantations during the year was Rs. 3,380 (see Appendix Form No. 56).
(c) Operations for the improvement of growing stock.
59. Creepers and climbers were cut to some extent by the Forest Guards. An experimental thinning was done in the Sháhápur Range of South Thana Division to free teak seedlings. An expenditure of Rs. 25 was incurred. In the divisions of North Tbána, Surat, Panch Maháls and Central Thána, there were practically no operations although the Working Plans prescribe them. Steps have been taken to remedy this.

## (d) Experiments.

60. Measurements to determine the relative depth of water in wells situated inside and outside forest, with a view to obtain an idea of the effect of forests on the height of subsoil waters were continued by Mr. Pearson in the Panch Mabáls Division as reported in paragraph 36 of the last year's Administration Report, but owing to the want of a reliable level it was not possible to calculate the difference in height of the points from which the measurements have beon taken. Hence no deductions from the figures can yet be made (a level has дow been obtained).
61. Experiments were also carried out by him in trying three different methods for forcing teak germination (1) by baking seed for 3 months in the sun, (2) by putting seed in pits in layers with mould and watering every other day, (3) by altérnately soaking and drying the seed. One thousand good seeds under eaoh process were sown. After a month, 99, 335 and 27 seeds germinated respectively. It is not likely that these figures represent a true constant difference in the value of the systems. The same experiments are being repeated this year with the addition that 4 more lots of seed are under observation, i. e.,
(a) 1,000 of this year's seed not treated at all.
(b) Do. seeds two years old not treated in any way.
(c) Do. whioh have been subjected to a light burning in a grass fire.
(d) Do. which have been more severely burnt in a grass fire.
62. In the Central Thána Division Kánara teak seed and sal seed from Oudh were sown in Khardi and Wáda Ranges, but with no results. In the case of sal seed no result should have been expected. In the South Thána Division hirda transplants laid down in the moist forests of Yeur in Sálsette Range are reported to be doing well. A more extensive rearing and planting of this valuable economic species is being resorted to during the current rainy season.

## V.-EXPLOITATION.

## (a) System of Management.

## (i) Major Forest Produce.

63. Clear fellings.-Fellings of this nature were made in Coupe No. 20 of the Shimpowli Babul Reserves, covering an area of 18 aeres, in accordance with the prescriptions of the Working Plan.
64. Regeneration fellings.-Coupe B2 of the Tulshi Reserves belonging to the Bombay Municipality had subsidiary selection fellings made in it for the romoval of over-mature, dead and dying trees. Dense bambu clumps were also thinned in the coupe by the agency of the contractor. These are really rather. improvement and transformation fellings than anything else.
65. Selection fellings.-There are no fellings under this method in this circle.
66. Improvement fellings.-Dead and dying teak trees, the result of recent droughts, were exploited in Surat and the Panch Maháls Divisions. Those in Surat were few, but the Panch Maháls had according to the temporary Working Plans 251 coupes covering an area of 39,779 acres. The dead trees in these coupes fetched Rs. 1,66,244 or about Rs. 4-3-0 per acre. Last year there were cut in the Panch Maháls 244 coupes with an area of 4,116 acres. They sold for Rs. 1,52,699 or about Rs, 3-11-0 per acre. Timber and fuel to the amount of 426,255 and $1,231,485$ cubic feet respectively were removed, against 307,175 and $1,441,553$ cubic feet for the year 1903-1904.
67. Coppice fellings.-According to sanctioned Working Plans coupes were laid out and sold in the Thána Divisions and Surat Division (BulsárChikhli).
68. In Surat 5 coupas of an area of 93 acres were offered for sale and all . sold for Rs. 1,981, with 2 old coupes of an area of 37 acres for Rs. 186.
69. In Thána the number of coupes laid out for exploitation during the year 1904-1905 was 263, aggregating 13,768 acres, out of which 236 coupes of an area of 12,293 acres were sold to contractors for Rs. 2,17,706. In addition to these, 11 coupes left unsold in previous years were disposed of for Rs. 6,103. Owing to the keen competition amongst traders the average price per acre jumped from Rs. $12 \cdot 9$ to Rs. 17.3 .
70. Unregulated fellings.-Marked green teak were sold standing and green second class timbers were selected and marked in the Protected Forest of the Dángs after purchase. Dead teak and second class timbers were purchased by contractors and removed both from the Reserved and Protected Forests;
bamboos were sold on permits. The second class timbers comprise such excellent kinds as Terminalia tomentosa, Pterocarpus marsupium, hheir, eto, and I much dislike having to allow the best trees in the Dangs to be selected out at prices so low as Re. 1 to Rs. 3 per khandi of $12 \frac{1}{3}$ cubic feet.
71. Thirty-seven extensions were given to windfall contractors. These and all other deadwood workings outside regular coupes are a great evil. They bring in revenue it is true, and utilise material that would otherwise rot or burn, but they are really reversions to the old "kolpat" system of loot and fires, under which contractors simply paid labourers to rob and destroy and make more deadwood from year to year. No more extensions of this class are to be given.

## (ii) Minor Forest Produce.

72. Minor forest produce is given away, sold by contract, or sold on permits, sometimes at privileged rates. All this lost revenue ought really to be transferred to Forests from the Land Revenue in the interests of which the privileges are granted. We supply grazing and other things gratis or at rates far below the market value. The Irrigation Department supplies another important item (water) for which it is strong enough to insist on its full share of revenue. (Appendix, Form No. 58.)

73 The following statement summarises the practice at present as to the items of minor produce which are allowed to be sold or otherwise in the several divisions:-


Grass is only sold from closed blocks and certain special areas. The ordinary system of grazing on permits has been superseded in Surat by the socalled "Kánara System," under which all-the forest-village cattle pay 2 annas per head, instead of plough and milch animals going fres and others paying. The Forest Department is only allowed to issue the permits and collect fees for outsiders' cattle paying full fees.
74. Receipts from other sources were as follows:-hirda Rs. 612, apta ${ }^{\prime}$ and temburni Rs. 3,846, palm leaves Rs. 1,474, chilari-bark Rs. 280, kárvi Rs. 298, ets., etc.-total receipts Rs. 9,334. The quantities should be given here, but are not available.
75. Mhowra seeds were collected by establishing depôts in Thána District according to Government Resolution No. 2918, dated 7th April 1905, Revenue Department. The seeds were sold at Rs. 2-12-0 per railway maund for delivery at the Wári Bandar Station in Bombay, the contractor paying rajway freight and bags. Delivery was not made till the close of the Forest year, but it may be stated that the result was a loss in North and Central Thána and a profit in Southern Thána of Rs- 1,233. There is a well established export trade in this item, and the seeds were only obtained in South Thána by the exercise of some persuasion which should not be repeated. (Vide separate report.)

## (b) Agency of Exploitation.

(i) Departmental Agency.
76. Major Forest Produce.-One coupe of the Mokháda Range in the Central Thana Division was exploited departmentally to provide for privileges, but the material remained unsold. The amount may be taken as $\frac{1}{80}$ of the total outturn from the coupes exploited in South Thana. In the Surat Division 50 khandis of green sadada (Terminalia tomentosa) were cut and brought to Vejalpur Depot with a view to obtain a greater rate of profit than Rs. 2 per khandi, whioh sadada fetched standing this year, but at an auction only Re. 1 above the actual cost was bid; so the timber remains on hand. The 500 teak girdled last year are dead but will not be sold till next year. Line-cutting was done in the Panch Maháls Division and the material removed was 137 cubio feet.
77. The material extracted departmentally during the year in the Northern Cirole was 3,568 cubio feet of timber and 11,103 oubic feet of firewood, compared with 2,799 and 2,020 cubic feet respectively for last year. Out of this quantity 2,390 and 3,668 cubio feet of timber and firewood were disposed of for Rs. 505 and 16 respectively. The balance of 3,977 and 9,455 cubic feet of timber and fuel remained unsold at the end of the year.
78. Minor Forest Produce--No work was undertaken except that mentioned in paragraph 72 and the amount received was Rs. 2.
(ii) Purchasers.
79. Major Forest Produce.-The following table will show the removal of material in cubic feet by consumers or purchasers as compared with the average of the past three years. There is an increase by 351,426 oubio feet in timber and $1,507,138$ cubic feet in fuel, mainly due to more extensive removals of dead and dying trees in the Panch Maháls Division, where 7 more coupes were offered forsale than the previous year:-

| Year. | Tumber. | Fael | Total |
| :---: | :---: | :---: | :---: |
|  | c. feet. | c. feet. | c. feet. |
| 1904-05 | 2,000,359 | 6,241,590 | 8,241,749 |
| Average of the past three years | 1,648,933 | 4,334,252 | 5,983,185 |

80. There was a very large area under working, thanks to extensions of time for previous years' contracts, and labour was quite insufficient throughout the circle. Contractors had begun to look upon extensions as a matter of course, till the work to be supervised got quite beyond control. Now no extensions are given except for very solid reasons or on payment of a substantial surtax. The extraordinary extensions in force during the year are shown below :-

| Name of contract. |  | North 'J'b\&na. | Central Thána. | Sonth Thána. | Surak, | Panch Mabáls, | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | No. | No. | No. | No. |
| Coupes |  | 9 | 1 | 5 | 5 | 24 | 44 |
| Royalty trees |  | 31 | 32 | 11 | $\ldots$ | ... | 74 |
| Lane-catting | , | 3 | 7 | 1 | ... | 1 | 12 |
| Windfalls |  | 19 | 18 | ** | ** | - | 37 |
| , | Total | 62 | 58 | 17 | 5 | 25. | 167 |

Particulars about coupes sold will be found in paragraphs 63 to 69.
81. Minor Forest Produce.-Minor forest produce of the value of Rs, 9,334 was sold as detailed under Chap. II, 5 (a) in paragraph 74.

The total value of the year's sale is as follows:-

> Major forest produce

82. Permits to cut on payment dead firewood of species other than teak were issued in all ranges of the Panch Maháls Division and the amount -

- thereby is Rs. 2,250 against Rs. 2,525 of last jear. Stricter supervision was exercised by all Forest subordinates over the working with the result that Ghanchis, who were in the habit of evading the permit rules and cutting in forests for which permits were not granted, found their evil practices cheoked.

83. Passes are issuedin Bulsár-Chikhli Range of the Surat Division after comparing the produce brought out with that for which permits were originally issued by Range Forest Officers. In the Dangs people generally bring out as they please, poles, axles, eto., to a local bazár where passes are issued to the purchasers. Nothing but impotence can excuse such a system. of destroying the finest young trees in the forest; but the time is perhaps net yet ripe for better management. The towns of Bhiwandy, Bassein, etc., are still supplied by "wild tribes" under deadwood privileges, to the great detriment of the forests. This would have been stopped, but contractors could not be persuaded to set up depots to supply the public, apparently because they fear the difficulty of making influential persons pay for the wood supplied to them.
84. Government Teak trees on Private Lands.-The sanction of Government was obtained to a change of system whereby the teak should be sold on commercial lines and 20 per cent. given to the landowners, instead of their being allowed a privilege of pre-emption at low rates. Under the latter scheme enormous profits had been made by speculators. Under the new one, Government gets half as much again, while the ryots get perhaps three or four times as much as before, but this information should only appear in next year's report. The number of trees sold was $9,95,374$ and the receipts amounted to Rs. $2,65,098$, or an average price of 4 annas and 3 pies per tree, notwithstanding the fact that the sales included quantities of refuse trees from previous years. The average prices last year and the year before were $2 \frac{1}{3}$ and $3 \frac{5}{12}$ annas respectively. Next year the price will be nearer 8 annas.

## (iii) Rights and Privileges.

85. There are no rights to forest produce in this Circle, except that recently a Forest Settlement Officer has found communal rights to cut branches for rab. Never yet in all these jears of Forest Settlement has this been done, though circumstances were exactly similar. An appeal was proposed, but was not approved by Government, so this wasteful custom is now erected into a right.
86. Produce removed on privileges includes small timber, fuel, bamboos, grass and grazing, and practically everything else except the larger trees. The total value of the major and minor produce so removed is estimated at Rs. 7,37,312, that is to say, nearly as much as the total gross revenue of the Circle, and nearly twice the net revenue.
87. The privileges granted are generally utilised, but there are many places where the small material is not removed from coupes, and there are many others where the forest is badly hacked about. In fact when every villager is allowed to wander at will with axe and bill, it is not to be expected that the forest can be protected. Under these circumstances the only possible means of ensuring the exercise of privileges without damage to the forests lies in the temporary abrogation of the latter when abuses become too serious. This has been done to a small extent.
88. The following table is prescribed by Government Resolution No. 6560 of 27th August 1904:-

| Prodnce. | Average for the past three jears |  | 1904-05 |  | Explanation of any incresea or decrease 10 the demand. | Mcans taken to permit proper exercise of privileges without damage to Forests. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Reccipta. | Quantity. | Recerpts. |  |  |
| Magor. | Cubic feet. | Ra. | Cubic feet. | Ra, |  |  |
| $\begin{array}{ll}\text { Tumber } \\ \text { juel } \\ \text { und }\end{array} . .$. | $\begin{array}{r} 121,595 \\ 12,328,190 \end{array}$ | $\begin{array}{r} 6,100 \\ 179,360 \end{array}$ | $\begin{array}{r} 121,965 \\ 12,344,0,3 \end{array}$ | $\begin{array}{r} 6,131 \\ 175,284 \end{array}$ | .\% | Forst Officeris supphed linte of privi- |
| Total | 12,449,735 | 185,460 | 12,465,993 | 181,415 |  | on occasion theme |
|  |  |  |  |  | - Baraboor remoled free in bundles by privilge boldera were not catumutad in provioum re.porte. |  |
| Bamboes Grazas | \%25,476 | $\begin{array}{r} 11,018 \\ 4,52,357 \end{array}$ | -873,143 | $\begin{array}{r} 29,907 \\ 4,56,655 \end{array}$ |  |  |
| $\begin{array}{ll} \text { Grazing } \\ \text { Minor Products } & \ldots-. \end{array}$ | $\cdots$ | $70,872$ |  | 49,435 |  |  |
| Total .- | . $\cdot$. ${ }^{\text {a }}$ | 534,247 | * $\cdot$ | 6, 5 5, 987 |  |  |

## (iv) Free grants.

89. The total value of free grants was Rs. 2,564 against Rs. $\mathbf{3 , 6 8 4}$ for last year, and Rs. 4,059 the average of the last three years. Conservators have little to do with freo grants, and no more information is available.
(c) Outturn and Sources of Forest Produce.
90. The value of the outturn from all classes of Forest was as follows :-

| Reserved Forests |  |  | Major. | Minot. <br> 1 |
| :---: | :---: | :---: | :---: | :---: |
|  | ... | ... | 432,098 | 36,696 |
| Protected Forests | ... | - ${ }^{\text {a }}$ | ... | ... |
| Leased Forests ... | .-* | ... | 47,756 | 4,575 |
| Private lands | ... | ... | 265,998 | ... |
|  |  |  | 744,953 | 41,271 |

17,372 cattle were grazed on payment and $\mathbf{3 2 5 , 5 3 8}$ free.

1. The total expenditure incurred on the Management of State Forests was Rs. 3,37,805.

## CHAPTER III.

## FINANCIAL RESULTS.

92. The following table oompares the actuals of the year 1904-05 with those of 1903.04 and with the average of the past five years:-

| Revenue .. | $\cdots$ | .. | Average of the past 5 years | 1903.04. | 100405. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \mathrm{Rs}^{4} \\ & 465,878 \end{aligned}$ | $\begin{aligned} & \text { Rs. } \\ & \mathbf{5 7 5 , 1 1 2} \end{aligned}$ | $\begin{aligned} & \text { Rs. } \\ & 807,021 \end{aligned}$ |
|  | $\cdots$ | $\cdots\left\{\begin{array}{l} \text { A. } \\ \text { B. } \end{array}\right.$ | $\begin{aligned} & 116,231 \\ & 199,308 \end{aligned}$ | $\begin{aligned} & 140,194 \\ & 208,611 \end{aligned}$ | $\begin{aligned} & 127,096 \\ & 210,709 \end{aligned}$ |
| Expenditure |  | Total | 315,539 | 348,805 | 837805 |
|  |  | Sorplns | 150,339 | 226,307 | 469,2]6 |

The Rovenue from Major hoads is for the same periods : $\rightarrow$

|  | Avernge of past 5 years. | 190304. | 1904-05. | Percentago of Major Hends to thtal, 1904-05. |
| :---: | :---: | :---: | :---: | :---: |
| Income ... | Rs. $420,511$ | $\begin{aligned} & \text { Rs. } \\ & 523,869 \end{aligned}$ | $\begin{aligned} & \text { Rs. } \\ & 765,140 \end{aligned}$ | $94 \cdot 8$ |

For Minor heads the figures are :-

|  |  | Average of past 5 yeara. | 1903-04. | 1904-05. | Percentage of Ginor Fends to cotal, 1004 Of4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Incrme , | ** | Rs, 45,567 | R8. 51,213 | $\begin{gathered} \text { Rs. } \\ 41,<81 \end{gathered}$ | 5.2 |

The expenditure under A-Conservancy and Works is as follows :-

| Clas of expenditare. | Amounto | Tercentage of elare to total expendituro. |  | Peroentage of clast expenditure to total revence (incledung value of privilegia). |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Vnder 4. | $\begin{gathered} \text { Under } \\ \mathbf{A}_{\text {and }} \end{gathered}$ | Under 1. | Under $A \text { and } B$ |
|  | Rs. | Rs, | Rs. | Rs. | Hs. |
| Extension of Forest property. | 10,340 | $8 \cdot 1$ | 3.1 | 06 | 1.7 |
| Constitution | 6,440 | $5 \cdot 1$ | 1.9 | 0.3 | $1 \cdot 1$ |
| Improvernent -... | 72,822 | $57 \cdot 3$ | 21.6 | $4 \cdot 4$ | 12.5 |
| Exploitation $\quad$... | 87,434 | 29.5 | 11.1 | $2 \cdot 3$ | $6 \cdot 4$ |
| Total ... | 127,098 |  |  |  |  |

The expenditure under B Establishment is as follows:-


The net income was 88.9 per cent. of the gross receipts.
93. Outatandings,-At the close of the year the amount of Rs. $1,00,442$ was due from contractors, not as an overdue debt, but as the sum to be paid before they complete their work.
94. The figures of revenue and expenditure do a very serious wrong to this Department in that they fail to show as revenue the full value of all produce removed. The Department is thus crippled by want of money for cultural operations, buildings, staff, \&o., because its apparent revenue is small. The Surat Division for instance has of recent years been worked at an apparent loss of Rupees twenty to sixty thousand. But Mr. Hodgson shows that while the revenue actually handled this year was only Rs. 65,401, the privileges exercised represented Rs. 1,46,000 additional. The Surat Division ought in justice therefore to be allowed credit for Rs. 1,46,000 under the head of Free Grants or privileges, and to show a real profit of Rs. 1,23,508.

## CHAPTER IV.

## ADMINISTRATION.

5. The changes of the year were the following:-The writer took charge of the circle on 28th October, relieving Mr. Millett; Mr. Duxbury took leave in October, leaving the Working Plans Ofice to the charge of the Conservator. Mr. Ryan took leave in April 1904 and owing to the undermanned state of the Department the Central Thána Division had to be put in charge of Mr. Fisher in addition to his own; Mr. Gilbert took charge of the Working Plans in June; Mr. Gokhale was attached to the Working Plans as Extra Assistant Conservator on 4th January 1905. Mrr. Bijoor, the Extra Assistant Conservator of North Thána, was deputed to the Panch Maháls from December to May in assist in the suppression of fraud and in the marking of trecs, Mr. Fisher holding both the Division and Sub-Division of North Thána. Owing to Mr. Ryan's Exhibition work the Central Thána Division got no adequate supervision, for he did cot get out into camp till 14th February 1905 and on lst April he took leave
and the Division had to be tacked on to North Thána. Eight special Guards were appointed in Dohad and Jhálod Ranges of the Panch Maháls Division for 2 months to kelp to protect the forest against petty offences by villagers, which were increasing owing to soarcity in those Ranges. One clerk was deputed from Surat Division for 4 months to help the Divisional Forest Officer, Panch Mahals, Mr. Pearson, in the preparation of the Compilation of Forest Standing Orders according to Government Resolution No. 1880, dated 9th March 1904.
6. One additional Beat Guard on Rs. 8 per mensem was appointed to patrol the Inám Forests of Atgaon in South Thána Division, the management of u hich was assumed by the Forest Department under the orders of Government. Three Beat Guards were deputed from Kalyán to Bhiwandi Range to oheck thefts.
7. One Beat Guard was prosecuted, convicted and sentenced to 3 months rigorous imprisonment for illegally disposing of some teakwood from Chinchoti Forests of Bhiwandi Range in the South Thána Division.
8. All Divisional Forest Offices were inspected and no irregularity worth recording here was found.
9. The work of the Divisional Forest Oficers was good without exception, and I desire to express my grateful appreciation of their untiring efforts during a year of partioularly heavy work.
10. The following officers are mentioned for good work: among SubDivision Officers, Messrs. Bijoor, Dalia, Takle, also the Dáng Diwan Mr. Nilkant Mabadeo Deshmukh, and the Public Works Department sub-overseer lent to Surat, Mr. Chitale; among Rangers, Messrs. A. K. Desai for marking and Sajishah llyseinshah for fires in the Panch Mahals; Messrs. Patkar for fires, Bhalerao, Lahewala and G. R. Desai for general work in Surat; Messrs. Nachan, Vaidya iu North Thána, Mr. Bhadbhade in Central Thána, Messrs. Limaye and Gangadhar Dinkar in South Thana. The office staff, with the exception of Head Clêrks and Sheristedárs, has small ohances of being notioed, and the only names specially mentioned are Messrs, Sapre and Nabar in North Thána, and Mr. B. MI. Rege in South Thána. To these may be added Mr. Rege of the Working Plans and Mr. Balwantrao, the Head Surveyor. My own offioe has fortunately shown itself fairly competent. All office establishments have worked in general well. The slackest of them was Central Thana, where it was found that letters received were not beng registered till they were replied to.
11. Relations between the Revenue and Forest Officials throughout the whole of the Northern Circle were most cordial.
12. The touring season was begun by taking only one or two clerks into camp and leaving the rest in head-quarters, but the system was found more or less annoying and obstructive of work, owing to the frequent and unsatisfactory reterences for information. In certain localities it works well enough, but what is wanted is a system under which the whole of the account work can be dealt with by an accountant at head-quarters, while all usual records and staff accompany (more or less closely) the Head of the office. When part of the office is left at head-quarters, it is probable that certain clerks only go to office when they please, complaints having been made to this effect.
13. Mr. Pearson has already to some extent forestalled some possibly contemplated orders of Government in regard to the training of subordinates by instituting a short course of instruction and examination for promising guards, in accounts, sketch maps, estimating areas, offence procedure, timber classing, forest law, etc.
14. Divisional Forest Offcers complain bitterly, and not without reason, of the long delay in the reorganisation of the subordinate service, for they find it very hard to obtain guards at all on the current rates of pay, while those they do get are seldom of the class desired.
15. Government was addressed during the year. on the question of subordinate pensions and the impossibility of earaing them. The following table shows the casualties of the year:-


It is clear that if 10 per cent. of the guards disappear annuslly, the inducement to work well on the chance of a pension after 30 years is nil.

## CHAPTER V. general.

106. The Conservator travelled throagh all Divisions of the Circle. The following subjects were specially brought to the notice of Divisional Forest Officers and instructions issued for their guidance :-
(1) The need for cleanings in young coupes,
(2) The necessity for dibbling large areas instead of planting out a few hundred plants.
(3) The advisability of getting people to remove as much as possibleaof the dead or dying flowered Karvi so as to avoid fires.
(4) The need for more standards to protect the soil in coupes, whioh is here not only financially sound but sylvicaltarally necessary.
(5) The clearance of royalty teak from private lands.
(6) The interpretation or modification of contractors' agreements with a view to more orderly working.
(7) The proper use and kinds of marking hammers.
(8) The working of the pass system.
107. During the hot weather Mr. Roger Ducamp, Administrator General of the Forests of French Indo-China, visited the forests of Tánsa and of the Panch Maháls.
108. An Exhibition was held in Bombay about Christmas, and this Department had a fine collection got together by Mr. G. M. Ryan, for which he obtained the thanks of Government. It may be said that the Department in this case conferred much more benefit than it received, for the notice given was so short that nothing of real utility to the Department could be undertaken, and efforts had to be concentrated on the usual collections. The one object whose importance to this Department outweighs all others is the utilisation of second and third class timbers. It is almost hopeless to try and induce furniture makers, builders, etc., to use these woods, some of which are excellent, but if Government could have shownmy camp tables of Cedrela toona, Briedelia retusa, Elaodendron glaucum, my light cot of Pterocarpus marsupium, good after years of hard service; paneling and furniture in hed, kalam, shiwan, carving in Wrightea tomentosa, etc., etc., golf clubs of babul, tivoas, bhendi, dhaman, palme, etc., it is possible that the market might have been stimulated.

The following are extracts from remarks made by ${ }^{\circ}$ Collectors in formarding the Administration Reports of the Divisional Officers to the Conservator of Forests, Northern Circle.

## Mr. Shepherd, Collector of Thána, states:-

*     * 2. The Collector does not propose to comment at length on this report. Most of it deals with technical matters on which he is not prepared to offer an opinion.

3. The increase in income is noticcable and satisfactory.
4. Forest offences both in this Division and in North and Central Thína, appear to be on the increase; but this increase may be due to greater rigilance on the part of the Forest staff. The punishments a ararded for the offences of setting fire to forest, appear to be inadequate. Short terms of imprisonment are not sufficient to teach a naturally careless population the necessity of taking proper precautions.

It seems hopeless to expect real efficiency from guards who are paid lower wages than an ordinary unskilled labourer can earn.

Mr. Westropp, Collector of Surat, states :-

*     * 2. Demarcation.-It appears that the remark in the concluding sentence of paragraph 3 of Government Resolution No. 3560, dated 11th May 1905, reviewing the last Forest Administration Report was due to some misunderstanding. Mr. Hodgson now explains that as a matter of fact iron tiebars cost less than cairns. They are more durable and require little or no repairs and are therefore to be recommerded on all grounds.

3. Protection from fire.-The exertions of Mr̀. Hodgson and of his subordinates were well rewarded, and in the Mándvi Range he is this year able to report that not a single acre of forest was burnt. In this matter he has by his personal influence over the people of these parts, and the good work he has been able to secure from his subordinates, established a record which, it is hoped, will continue the standard of future exertions.
4. Offences.-The number of undetected cases shows an increase which it is understood, however, is merely nominal, being due to the inclusion in tho statistics for the first time of undetected fires in the Dángs. A larger number of cases (80) were compounded than the average of the preceding years (46); when properly controlled, as the Collector has every reason to believe the egstem is in this district, it is no doubt a very desirable method of dealing with petty forest offences.
5. Fires in the Dangs.-There is some slight improvement to be recorded, hut much wasteful damage still goes on. Improved methods of cultivation and fixity of domicile among the wandering Bhils, must be inculcated before much progress can be expected. Mr. Hodgson may be relied on to adopt the methods most suited to the locality, which he has so carefully studied and in which he has spent so many years. His successors will do well to carefully study his conciliatory and tactful oourse which is leading to such steady improvement in the condition of the Dang forests and people.
6. Sylviculture.-Except in the Dángs the rainfall was more or less deficient and progress in natural reproduction was retarded; on the other hand those ssedlings that had established themselves had, owing to the entire absence of fires, a better chance of growing. In the Dings while the rains were favourable, the fires continued to do immense injury to natural reproduction.
7. Experiments.-The system of catting trees and carting the timber departmentally to the Vejalpore Depôt from the Dángs for sale at Vejalpore, instead of selling trees in the Dangs, was tried during the year under report, but it is apparently yet too early to pronounce upon its success or want of success As regards teak, it is in all probability the only feasible system of working the D.ng forests.
-5- 8. Financial Resulls.-Mr. Hodgson has drawn up an ingenious estimates of the monetary value of the privileges which the people exercise in the forests of the division, to demonstrate the apparent fallacy of supposing that the forests are worked at a loss. Where special privileges are exercised by the people as in the Ding Range, no doubt some such caloulation is useful, when comparing the results with those of other districts.
8. General Remarks.-Much useful work has again been done in the Dangs, Rs. 16,523 being spent on new buildings and Rs. 4,099 on roads, and another season's work should see all.the most necessary buildings and many of the roads, completed.
9. Mr. Hodgson has added another year's excellent work to his record and has been ably and chcerfully assisted by his various subordinates.

м 6 .1-6
11. A word of praise is again specially due to Mr. C. G. Dalia, the SubDivisional Officer, to Mr. Deshmukh, the Dings Dewan, and to Mr. Chitale, whose services were lent by the Public Works Department, for the continued zeal and perseverance they have shown in the execution of their duties,

Mr. Pratt, Collector of Panch Maháls, states :-

*     * 2. Owing to the very inadequate monsoon the forests were exposed to danger from fires for a very much longer period than usual: this and the extraordinary amount of work entailed by the extensive felling operations of dead and dying teak carried on by numerous oontractors made the work of the Division unusually arduous during the year under report.

3. But in spite of exceptional dificulties the year's work has been done thoroughly and well, and this result is due largely to the unwearging zeal and enthusiasm of the Divisional Forest Officer, Mr. Pearson, whose example has, I believe, considerably raised the standard of the work and the morale of all his subordinates.
4. It is satisfactory to note that greater efficiency in fire protection has resulted from the adoption of the system of village responsibility ordered under Government Resolution No. 7186, dated 13th October 1903.
5. The suggestion made in paragraph 50 of the report for discouraging thatched palm-leaf roofs in Kálol and Halol is a good one and will be adopted so far as possible.

Conservator's Office, Northern Cirele;
Bándra, 3rd October 1905.

F. GLEADOW,<br>Conservator of Forests, Northern Circle.

# Neliew of the Forest Alministration Report of the Northern Circle for 

 the year 19) $1-1905$ by the Commissioner, Northern Dioision.No. 4881 op 1005.
Ahmedabad, 161h November 1905.

## Revente Department.

## Submitted to Government.

Paragraph 4.-Mr. Gleadow does not state why the whole area still to be settled in Thána will have to be revised; apparently it is on the ground that the work hitherto done has been "neither scientific nor practical." Some further explacation might have been offered, but it is presumed that Mr. Gleadow is taking measures to reckon up the areas still to be settled, and to submit proposals with his reasons where he thinks the work done to be unsatisfactory.

Paragraph 20.-Yroposals for the revised working plans for Godhra and Kálol Ranges were sanctioned in Government Resolution No. 6177, dated 31st July 1905.

Paragraphs 29, 31 and 32.-The increase of offences of injury to forest by fire is briefly attributed to drought and famine in the Panch Mabáls; this is amplified by the explanation of the Colleetor that owing to the very inadequate monsoon the forests were exposed to danger from fires for a very much longer period than usual. Mr. Gleadow is probably right in saying that the increase of offences of unauthorised felling or removal of prodace and of unauthorised grazing does not represent all the offences committed. Moreover the number of undetected offences is large, being considerably above the average. The percentage of convictions in cases placed before Magistrates was 83 and this can searnely be said to be low. But what Mr. Gleadow complains of is the absence of severity in the punishments awarded. There may be cases of inadequate punishments, and it is for the Superior Forest Officers to either move the Collectors and District Magistrates to appeal against the decisions in such cases, or at any rate to bring the inadequacy of the sentences to their notice. The case referred to in paragraph 33, for instance, in which the offenders were fined Kis. 85 only, but in which the Conservator thinks the maximum punishment should have been awarded, might have been made the subject of a special judicial reference.

Although forest fires were more numerous and the prosecutions fewer than in the immediate past, a healthy sign for the future is that referred to in paragraph 38, and the result reflects to the credit of the Revenue Department and the people of the forest villages. The same indication is given in paragraph 41 so far as illicit grazing is concerned. The subject of additional cattle pounds should be separately investigated by the Conservator and brought to the notice of the Collector. There is force in the suggestion that offending eattle are let off because of the distance of the nearest pound.

Paragraph 72.-The comparison between the enforcement of the claims of the Irrigation and Forest Departments for Book Credit for material supplied is a cavil at the orders of higher authority which seems out of place in an Administration Report. Moreover the prestige of the Forest Department is independent of the question of a little more or less of money credits.

Paragraph 75.-The separate report referred to regarding the departmental collection of the Mhowra seed has since reached the Commissioner and will be submitted to Government in due course.

Paragraph 105.-The marks of interrogation in the table are not understood, nor as it olear upon what figures the 10 per cent. in the last sentence is calculated. It should apparently be 6.6 per cent., but in this dismisssls and resignations are included, and if Forest Guards leave the service voluntarily or
involuntarily, it is hardly proper that their number should be taken into account in drawing conolusions as to the pension rules.
2. The administration of the Dángs has formed the subjeot of a separate report.
3. The Northern Division has little importance compared with the Southern from a forest point of view. The Paech Maháls and Thana alone support forests of any considerable value and these are but second class compared with those of Kánara. Nowhere, however, is the barrenness of parts of Ratnágiri and South Kolába to be met with, and the country between the Mahi and the Sábarmati in spite of past damage by drought is still, thanks to the Gujarát Kunbi's love of his trees, rich in the beauties of an English park.
(Signed) R. M. KENNEDY,
Commissioner, N. D.

## No. 2324 of 1905.

From

> W. A. TALBOT, EsQ., $$
\begin{array}{l}\text { Conservator of Forests, } \\ \text { Central Circle; }\end{array}
$$

## To

The SECRETARY to GOVERNMENT,
Revenue Department, Bombay.

> Conservator's Office, Central Circle, Poona, s0th September 1905.

## Sir,

I have the honour to submit herewith the Forest Administration Report of the Central Circle for the Forest year 1904-1905 together with all its appendices.

> I have the honour to be,
> Sir,
> Your most obedient servant,
> W. A. TALBOT,
> Conservator of Forests,
> Central Circle.

## Through the Commissioner, Centrad Division.

ANNUAL PROGRESS REPORT OF FOREST ADMINISTRATION, CENTRAL CIRCLE, FOR 1904-05.

Table of Contents.


## ADIINISTRATION REPORT OF THE CENTRAL CIRCLE

## FOR THE YEAR 1904-05.

## CHAPTER I.

Extension and constitution of State Forests.
(i)-ALITERATION OF AREA.

The changes in the Forest area of the Circle (both "Reserved" and "Protected'") are insignifioant. There has been a net loss of $\mathbf{2 6 2}$ acres in the area of "Reserved Forests". The "Protected Forest" area remained unaltered.
2. The "Reserved Forest" area at the close of the year was 6,258 square miles 81 acres, against 6,258 square miles 343 acres.
(ii)-FOREST SETTLEMENT.
3. Settlement work outstanding at the olose of the year was as under :-

| No, | Disision. |  |  | Stages, of outstanding work, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Oceupled lands to be acquired by exchange or compenestion. |  | Landa to bs notified under |  |  |  |
|  |  |  |  |  |  |  | $4$ | $\begin{gathered} \text { Seotion } \\ \text { 6. } \end{gathered}$ | Eection 19. |
|  |  |  |  | Negotations progrebsuig. | Negotiations completed. |  |  |  |  |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 6 \\ & 7 \end{aligned}$ | East Khándesh <br> West Khándesh <br> Násik <br> Ahmednagar- <br> Poona <br> Sátára <br> Sholápur |  |  | Acres. | Acres, | Acres. |  | Acres | Acres. |
|  |  | $\cdots$ | ... | 2,145 | 4,060 | 691 | 13 |  | 2,943 |
|  |  | ... | ... | 3,132 | 1,194 | 1,201 | 15 | 14 | 1,050 |
|  |  | -•• | -• | ... | ... | ... |  | $\cdots$ |  |
|  |  | ... | - | $\ldots$ | $\cdots$ | ... | 35 | $\cdots$ | 142 |
|  |  | ... | .. | ... | ... | ... |  | 29 | 816 |
|  |  | ... |  | . | 113 | ... | 925 | $\ldots$ | 203 |
|  |  | ... | . | ... | ... | ... | ... | ... | 345 |
|  |  | Total |  | 5,277 | 5,367 | 1,892 | 088 | 43 | 5,499 |

An area of 116 aeres 33 gunthas of occupied lands was asquired by payment of Rs. 1,075 compensation and 13 aares by giving waste land in exchange. Besides these there were no acquisitions.
4. Settlement work completed and in progress :-

| No. | Division. | Settlement. |  | Costin Rupees. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Completed <br> Section 19. | Progressung Eection 4. | Ealaries. | Travelling allowances, | Contingencles. | Total. |
|  |  | Sq. m, acres. | Sq. m. acre s | Rs. | Re | Res. | Res. |
| 1 | East Khandesh | \%*... | 4883 | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ |
| 2 | West Khándesh *.0. | 020 | 1410 | ... | ... | ... | *** |
| 3 | Násuk - $\quad$ - | 05 | -c.0.0 | . $*$ | $\ldots$ | ... | ... |
| 4 | Ahmednagar ... |  | 0142 | ** |  | * ${ }^{\circ}$ | $\cdots$ |
| 5 | Poona -** | 012 | 1776 | ... | $\cdots$ | ... | - |
| 6 | Śátára | 0156 | 0203 | 773 | "108 | -271 | 1,147 |
| 7 | Sholápar | 02 | $\begin{array}{ll}0 & 345\end{array}$ | *** | ... | ... |  |
|  | Total | 0195 | $8 \quad 879$ | 773 | 103 | 271 | 1,147 |

## (iii)-DEMARCATION.

5. The progress in demarcation was rather slow. 149 linear miles of exterior boundary were demareated by special marks at a cost of Rs. 2,002 or Rs. $13 \% 4$ per mile, and external boundary marks over a length of 1,905 miles were repaired at a cost of Rs. 1,236 or $\mathrm{Ke}, 0.6$ per mile. Details of these works can be seen in Form No. 48.
6. In addition to the above, 30 miles of internal boundary between "Pastures" and "Forest Proper" "Fuel and Fodder Reserves" in West Khandesh were demareated at a cost of Rs, 103, while in the Ahmednagar Division about 95 miles of boundaries of the coupes of Mr. Fagan's Babul Working Plan were marked off in the field at a cost of Rs. 144.
7. At the close of the year 4,869 miles of exterior boundary remained to be done.

## (iv)-SURVEYS.

8. Forest Survey operations were in progress in the Khandesh, (East and West) Násik and Sátára Divisions. The year's work compares with that of the previous year as under:-

| Year. |  | Triangulataon. |  | Detail Survey. |  |  |  |  |  | Total cost. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $4^{4}$ and $8^{\prime \prime}$ |  | 4" |  | $8^{\prime \prime}$ |  | $10^{\prime \prime}$ |  |  |
|  |  | Square males. | Cost, | Square males. | Cost. | Equara miles. | Cost. | Square mules. | Cost, |  |
|  |  |  | Rs. |  | Rs. |  | Rs, |  | Rs. | Rs.* |
| 1903-04 |  | 677 | 11,476 | 576.24 | 34,585 | 81.98 | 9,364 | *** | $\cdots$ | 55,425 |
| 1904-05 | ... | 1,010 | 6,579 | 597-18 | 24,449 | 40.88 | 3,481 | . ${ }^{\circ}$ | ** | 31,509 |

9. Triangulation was continued in Khándesh, (East and West) and Sátíra Divisions. The cost rates bear favourable comparison with the tigures of the previous ycar. Detail survey on the $8^{\prime \prime}$ scale was continued in the Peint Range of the Násik Division up to 15th April 1905, when instructions were issued to change the seale of survey to that of $44^{\prime \prime}$ to the mile. An area of 40.88 square miles was surveyed on the former scale ( $8^{\prime \prime}$ ) at a cost of Rs. 125-9-7. per square mile. An area of 597.13 square miles was surveyed on the $4^{\prime \prime}$ soale in Khándesh, Násik and Sátára Districts. The cost rate per square mile in Sátíra and West Khándesh was Rs. 59-3-2. In East Khándesh it exceeded the West Khándesh rato by annas 7. In the Násik Division the rate was highest viz., Rs. 69.
10. Special boundary traverse operations were carried on over a length of 23 linear miles of the Khándesh-Barwani State boundary at the request of the Agent to the Governor General, Central India, and with the concurrence of the Government of Bombay. The cost of these operations amounted to Rs, 262 and is exclusive of that shown in the above table and will appear in the next year's report.
11. At the close of the year 2,679 square miles of Reserved and 12 square miles of Protected Forests remained to be surveyed.

## CHAPTER II. MANAGEMENT OF STATE FORESTS.

## I.-REGULATION OF MANAGEMENT.

## (a)-Preparation and Control of Regolar Working Plans.

12. Preparation of Regular Working Plans.-Two Provisional Working Plans, viz, the Deomogra Reserve Plan in West Khándesh, comprising an area of 50 square miles and a Plan for the Teak Reserves of the Akola and Rajur Ranges of the Ahmednagar Division extending over an area of 107 square miles, were sanctioned by Government in their Resolutions Nos. 3103 and 3178, dated 20th and 28th April 1905, respectively.

- 13. Provisional Working Plans for the above and below Ghát Teak Forests and the Anjan and Scrub Reserves of the Násik Division, received during the year, were after scrutiny by the Superintendent, Working Plans, the Collector and the Commissioner in course of being printed when the year closed. The field work for the plans of the Anjan and Teak Forests in the Edalabad and Jamner Ranges was finished during the year as laid down in the programme sanctioned by Government Resolution, Revenue Department, No. 6107, dated 2nd October 1900. The organization of the Akrani forests has again been postponed owing to the very inaccessible oharacter of these jungles. Neither have plans been made for the Navapur (Khándesh) forests as there is a large quantity of teak material outside forest limits still to be exploited. Both these sohemes were down in the programme for 1901-02. Form No. 50 will show the amount of work completed, in progress and that to be taken in hand.

14. The Working Plans Party and the surveyors attached to different Divisions laid out on the ground 266 compartments. The average cost per compartment marked out on the ground though slightly exceeding that incurred during the previous year does not require comment.
15. Control of Working Plans.-So far as regeneration and improvement of forests are concerned the prescriptions of sanctioned Working Plans have been observed. The suggestions made in the sanctioned Working Plans for the building of bungalows, forest posts, road making, \&c., have been carried out as are as it was possible with the funds in the sanctioned Budget.
16. No plans were revised during the year and none will lapse within the next three years.

## - <br> (b)-Preliminary Working Plan Reports.

17. No preliminary reports were framed and none are required for the forests of this Circle for the reasons explained in paragraph 14 of the Report for 1903-04.

> (c)-Plans of Operations.
18. Annual plans of operations were as usual prepared and efforts were made to carry out works according to them. The exceptional drought of 1900 prevented the regular working of coupes in the Nándgaon Range of the Násik Division and there was much dead wood still available for exploitation during, the year.

> II.-COMMUNICATIONS AND BUILDINGS.
(a)-Roads and Bridges,
19. The Dara-Mandvi permanent road aligned during the previous year was constructed over a length of 6 miles, and the remaining portion of the Bhauli-Ambewadi permanent road was finished during the year. The two temporary roads suggested in the Revised Working Plan of the Chopda-Raver-Yawal Satpuras were made. The Langdi-Bhavani Road was repaired over a length of 13 miles. The total cost of these works amounted to Rs. 6,370 .
(b)-Buildings.
20. A sum of Rs. 7,178 was spent on the construction of a bungalow on the Toranmal plateau in West Khándesh, a Hirda Depôt at Medha in Sátára and in construction and repairs of Forest Guards' huts and Forest Depôts detailed in Form No. 51.

## (c)-Miscellaneous Wores.

21. Two new wells at Nimbaderi and Deomogra were built and the old ones at Tinshamali, Raver, Adavad and Chopda repaired at a cost of Rs. 445.

## III.-PROTECTION OF FORESTS.

## (a)-General Protection.

22. Forest crime during the year has slightly increased. The total number of offences registered was 18,217 against 12,174, the average of the past three
years. This increase does not reffect bad protection in former years. Great soarcity of fodder in the Deocan accounts for the increase. Including the 417 cases referred to in para. 19 of last year's report there were 13,664 recorded cases for Divisional Forest Officers to pass orders on ; of these 714 were committed to Criminal Courts, 10,244 were dealt with under Section 67 of the Indian Forest Act. In 1,659 cases the offenders were not traced and 1,047 recently reported remained for decision.

Cases disposed of during the year compare with the average of those for the past three years as under :-

|  | A. Cases taken Into Court. |  |  |  | B. <br> Cases compounded. |  |  |  | c. <br> Canes undetected. |  |  |  | Tolal |  |  |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Division. | Injury te forost by fire. |  |  |  |  |  |  |  |  |  | Grasing without permiarion |  |  |  |  |  | 宮 | s <br> \% <br> \% |
| East Khandesh | 1 | 7 | 50 | 11 | 8 | 185 | 638 | 227 | 40 | 52 | 10 | 18 | 44 | 24 | 603 | 251 | 1,931 | 1,246 |
| West Khandesh | 80 | 125 | 89 | 20 | 91 | 188 | 426 | 71 | 101 | 303 | 29 | 17 | 158 | 696 | 654 | 108 | 3.410 | 804 |
| Nsert | 8 | 41 | 40 | 14 | 14 | 439 | 780 | 68 | 101 | 288 |  | 9 | 129 | 768 | 760 | 76 | 1,717 | 2,234 |
| Ahmednagar | $\cdots$ | 8 | 141 | . | 5 | 260 | 1,220 | 34 | 28 | 95 | 8 | $\bullet$ | 33 | 360 | 1,973 | 3. | 1,809 | 1,672 |
| Poona mesmer | 9 | 91 | 40 | 12 | 17 | 668 | 1,819 | 60 | 87 | 212 | $\theta 0$ | 7 | 106 | 905 | 1,928 | 78 | 3,018 | 2,653 |
| Sátars $\quad .0$ | 1 | 6 | 29 | 8 | 4 | 690 | 1,809 | 229 | 58 | 85 | 2 | 8 | 100 | 781 | 1,840 | 140 | 2,601 | 2,944 |
| Sholspar .-* |  | 3 | 12 | $\cdots$ |  | 24 | 485 | 2 | 7 | 37 | 1 | - | 7 | 64 | 448 | 2 | 671 | 678 |
| Total | 42 | 201 | 41 | 60 | 101 | 2,417 | 7,120 | 576 | 428 | 1,060 | 114. | 54 | 565 | 3,717 | 7,645 | 1800 | 12,017 | 11,416 |
| $\begin{array}{ccc} \text { A verage for pabs } \\ \text { jears } \end{array}$ | 108 | 380 | 308 | 139 |  | 2,361 | 2,801 | 458 | 1,126 | 910 | 76 | 68 | 1,337 | 3,651 | 8,184 | 060 | 8,839 | $*$ |

23. It will be seen that offences under the head "Injury to forests by fire," have considerably decreased, whereas offences under the remaining heads have increased.
24. Including the 99 cases pending at the close of 1903-01, there were 813 before the Magistrates. Of these 122 remained unheard and 691 were disposed of during the year with the result that 1,740 offenders in 615 eases were convicted and punished either with fine, simple or rigorous imprisonment extending over different periods according to the nature of the offence, in one case only the punishment of whipping was awarded. The punishments were without exception adequate. The percentage of acquittals shows an improvement, being 11 this year against 13.7 of the year before.
25. Of the 10,244 cases disposed of under Section 67 nearly 45 per cent. or 4,612 were compounded by money comperisation of Rs. 12,541. Forest officers used their powers with discretion. There were only 2 linit cases, 29 were compounded for sums falling between Rs. 26 and Rs. 48 and all the rest viz. 4,583, for sums between Re. 1 and Rs. 25. The $\mathbf{O}$ class or undetected cases have, it is satisfactory to record, appreciably decreased as compared with the average for the past three years, the total number recorded during the year being 1,659 against 2,173.

## (b) Protection from firr.

26. Complete protection of the whole forest area being unattainable, fire protection in this Oircle was confined to the more valuable areas in each Division, special attention was devoted to organised forcsts. Fire lines, both interior and exterior, were burnt and a special establishment of watchmen employed. Fire watchers were employed in the Káver, Yával, Chopda and Jamner Ranges, the area operated on was about 779 squares miles, out of this 27,387 acres or $5 \cdot 5$ per cent. was burnt against 2276 per cent. during the previous year. The cost pf protection was Rs. 596 or nearly 14 annas to the square mile.
27. The area burnt during the year was very much smaller than last year owing to the fact that there was little grass to burn. A comparison of the results for two years is given below:-

| Year. |  |  | Ares ander protection from fire. | Failures. | Percentage | Expenditare. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Rs. |
| 1903-04... | ... | ... | 3,850,360 | 823,571 | 24.5 | 2,575 |
| 1004-05... | ... | $\cdots$ | 3,311,981 | 226,461 | $6 \cdot 6$ | 3,732 |

28. The following statement shors the number and origin of the fires reported during the year. It will be pereeived that both the number of fires and the area burnt are very much below those of the preceding year :-

29. Including 11 cases of the preceding year there were 50 prosecutions for setting fire to forests. Of these 1 was discharged and 9 were acquitted. Punishment of fine was awarled in 19 cases. Sentence of simple or rigorous imprisonment was passed in 20, while in one case the culprit received eight lashes. The table below furnishes full particulars :-


30. Information in the form prescribed in Government Resolution No. 248, dated 12th January 1904, is given below :-

| ${ }^{4}$ No. | Divzion. | Total <br> forest area of the Division in charge of the Department. | Extent of valuable forest for which continuous protection Irom fire is desurable, | Proportion of valuable foreats whioh hae been continuously protected from fire for 4 years, | Extent of forosts naturally immune from fire. | Estent of fires burnt daring the gear. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Open foreats | Closed foresto | Total. |
|  |  | Aores, | Acres. |  | Acros, | Acres. | $\triangle$ Acres, | Acres. |
| 1 | East Khándoch | 498,114 | 498,114 | 4.03 | $\cdots$ | 9,128 | 18,269 | 27,887 |
| 2 | Weat Khándosh | 888,279 | 791,299 | 111 | - | 4,907 | 188,667 | 173,574 |
| 8 | Nassk | 776,184 | 399,616 | 61.1 |  | 17,326 | 3,187 | 20,513 |
| 4 | Ahmedagar | 293,415 | 209,415 | 50.2 | 58,030 | 741 | 207 | 848 |
| 5 | Poona | 822,650 | 127,203 | $93 \cdot 1$ | 101,752 | 602 | 1,527 | 2,123 |
| 6 | Satiara | 388,394 | 291,826 | ... | 100,569 | 1,037 | 448 | 1,483 |
| 7 | Sholapur | 189,945 | ... | -.. | ... | 427 | ... | 427 |
|  | Total .. | 8,911,981 | 2,401,473 | 81.86 | 200,851 | 84,168 | 192,203 | 220,401 |

## (c) Protection from Cattle.

31. Including pastures managed by the Revenue Department, 2,799 square miles ( 1.163 por cent. of the entire forest area) were open to animals of sll kinds including sheop and goats. Two thousand and sixty-two square miles or $32 \cdot b$ per cent. were open to horned cattle only. Two hundred and forty-two square miles or $3 \cdot 8$ per cent. were closed to grazing for part of the year and 1,251 square miles or 19.7 per cont. were closed for the whole year. Form No. 54 gives full partioulars. A comparison of the animals impounded during the year with the average for the past three years is given below:-

| Yas. | Cows and bullock. | Bufaloes. | Sheep. | Goata, | (\%ther | Total, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1901-02 | 41,085 | 3,982 | 38,160 | 47,547 | 881 | 131,661 |
| 1902-03 | 85,275 | 8,165 | 36,305 | 50,826 | 799 | 149,460 |
| 1903.04 | 45,642 | 5,839 | 33,290 | 43,081 | 716 | 128,568 |
| Average | 47,334 | 5,329 | 85,950 | 47,151 | 739 | 136,563 |
| 1904-05 | 75,564 | 10,990 | 44,953 | 53,005 | 862 | 185,374 |

Thus it will be perceived that the year's impoundings have increased by 35.7 per cent, over the average for the past three years. The increase is for all kinds of animals and is reported from all the divisions. Khándesh, Násik and Sátára attribute the increase partly to the scarcity of grass in unclosed areas and partly to the greater vigilance displayed by forest subordinates. Poona attributes the increase in a great measure to stricter supervision and in some degree to non-colleotion of grazing fees by village officers in certain tadnkas. Ahmednagar and Sholapur assign it to carelessness on the part of villagers. It is the practice in many villages to send out herds of cattle belonging to various owners in charge of one or two diminutive children, with the result that the oattle never being under proper control, frequently escape into reserved forest and do considerable damage. When this happens, the nominal herdsman, if prosecuted, says that the cattle were not his-and that he could not help what they did. He is usually acquitted while the owners not being on the spot and not having criminal knowledge, cannot be prosecuted under section 25 (d) of the Forest Act. With a view, therefore, to compel owners to take ordinary care of their beasts it has been proposed to apply sections 12 and 26 of the Cattle Trespass Act to the wire fenced areas. Only 308 head of cattle holding permits for grazing in open forests were driven to the pounds for grazing in closed areas; and the owners of 10,339 oattle found trespassing in open forests preferred to pay Rs. 1,033 forest grazing fees instead of the usual pound fees. To protect plantations in recently felled areas about 7 miles of wire fencing and about 44 miles of thorn fencing were made at a total cost of Rs. 801 or at an average cost of nearly Rs. 20 per mile.

## (d) Protecition against Injuries prom Natural Catses.

32. Forest Guards removed as usual injurious climbers. A large amount of work in the eradication of prickly-pear, specially from Bábul coupes of the Násik, Ahmednagar, Sátúra and Sholápur Divisions was done at a cost of Rs. 1,040. Many of the forests of the Ahmednagar, Poona and Sátara Divisions were overrun by swarms of loeusts which defoliated the trees and in many cases did considerable damage, causing the branohes to break by their weight. A campaign to destroy them therefore was undertaken by the Revenue Department assisted by Forest Subordinates. Nearly 224 maunds of locusts were killed in the Abmednagar Division at a cost of Rs. 2,167. The work done in the Poona and Sátára Divisions was not recorded. The expenditure on locust destruction incurred in the Ahmednagar Division was charged to the Revenue Department.

As regards injuries from other causes "insects, parasites, \&o.", the subject has received little attention in this Circle. No observations having been recorded by any of the Dívisional Forest Offcers,

## IV.-SYLVICULTURE.

(a) NatUral Reprodection.
33. Natural regeneration from seed in East Khándesh is not satisfactory. Over the greater part of the scrub jungle there are nó signs of fresh seedlings, due no doubt to the poor soil, lack of cover and damage by cattle. In Jamner and the Sátpuda Ranges, there is in places a good deal of teak reproduction. A certain amount of natural regeneration in the Bábul reserves and also in the Chálisgaon-Anjan Forests is reported. An attempt is being made to encourage reproduction in the serub jungles by scratching and loosening the earth under seed-bearing trees. In West Khándesh, natural reproduction owing to fires is poor. In the forests in the near neighbourhood of Dhulia, the Anjan reproduction has failed for 20 years or more. Generally speaking there are no Anjan trees to be found in the sapling or pole stage. These forests consist mainly of old trees (generally hollow at the base) scattered sparsely over the trap hills. Yet after the first rain at the end of June millions of Anjan seed germinated throughout the Dhulia forests and in the Lalling Reserve the seedlings are stated to have come up like grass in many places. Test plots will be marked out and especially protected from grazing and fire. Also it is intended to out back the grass round the seedlings. Natural growth on the hills in the Shevgaon and Jámkhed Ranges of the Ahmednagar Division whero sheep and goats have apparently been rigidly excluded, is reported promising. The hills are becoming covered with an excellent undergrowth in which it will be possible to start, in a few years, the planting of valuable indigenous species. Promising teak seedlings are making their appearance on the Jámkhed hills.
34. The year was not generally speaking a good one for seed. Bábul, Bor and other minor speoies seeded freely but teak did not. Anjan in the Eastern Ranges of the Násik Division seoded well. Karvi (Strobilanthes callosus) and Chiva bamboo (Oxytenanthera monostigma) seeded in the Sátara Division.
35. In the coupes felled during the year as well as in those felled in previous years, teak and dhávda (Anogeissus latifolia) stools as usual showed a - vigorous growth of coppice shoots.

## (b) Abtificial Reproduction.

(i) Regular Plantations.
36. From Form No. 56 it will be perceived that the area under Regular Plantations at the commencement of the year was 5,681 acres ; of these, 500 acres were rejected, owing to failures. During the year 2,031 acres were brought under treatment and thus the area at close of the year stood at 7,215 acres. The cost incurred during the year was Rs. 3,288. Of the 2,034 acres treated, some 1,157 were assigned to the sowing of Babul after full or furrow ploughing. Germination was free and the results obtained are with few exceptions satisfactory. The remainder of the area or 877 acres were devoted to the putting in of transplants supplied from the Manjri Nursery. A large percentage of these transplants are reported to have died for want of rain.

## (ii) Cultural Operations.

37. Under the usual systems, viz., sowing in pits, dibbling under bushes, sowing in seed-beds or patches and broadcasting some 5,247 acres were treated and this area along is shown in Form No. 56 for reasons already explained in paragraph 35 of the previous year's report, Results of these works are reported to be moderately good. The Central Nursery at Manjri was maintained during the year and 560,642 plants of 10 kinds were raised against 638,850 of 6 species last year. Experience haring shown that sending plants to distant divisions is not profitable, it has been decided to reduce and maintain the nursery on a much smaller scale for the purpose of raising sufficient transplants for the forests of the Poona Division only. Experiments on exotio and indigenous species will in future also be made in this nursery.
(c) Operations for the Improvement of the Growing Stock.
38. Weeding is carried on in Bábul coupes but the information as to the area dealt with and the cost incurred are not separatoly recorded at present. As
working plans are propared and works are carried on and registered according ${ }^{\circ}$ to their prescriptions, it will become easier to show the extent and cost of works undertakon in this way.
(d) Experiments.
39. The experiments with Calatropis gigantea, (Ak) and Terminalia Chebula, (IIIrda) referred to in paragraph 37 of last year's Report have proved a failure.
40. The experimental plantations known as "Agriculture combined with Forestry" started in the Nasik Division are in gool condition. A small plot was alsa treated in this manner departmentally during the ye.re successfully.
41. As reported in paragraph 30 of last year's'Report, 75,003 aloo bulbils were planted during the year in 10 aores of ground at a cost of Rs. 261 , including watering and supervision charges. Another lot of 50,000 was procured and carried to the nurserg at a cost of Rs. 5 , but this was done after the close of the year.
42. The experiment of giving forest land for cultivation, started in 1902-03 in the Poons Division, was continued :and further developed during the year. As this is the third year of the experiment, the result will be ascertained and fully reported on next year.
43. Seeds of Grevillia robusta, and Casuarina equisetifolia, were obtained from Bangalore and the seedlings reared were planted out on the Mahábaleshwar plateau with considerable success.

## V.-EXPLOLTATION.

## (a) Systelf of Management.

(i) Major Forest Produce.
44. Clear fellings extended over 73 coupss of an aggregate area of 804 acrés against 74 coupes of last year, comprising an area of 969 acres. There being no fellings in the Násik Division a difference of 1 occurs in the number of coupes, whule the diminution in area is due to the year's coupes being of smaller size than those of the preceding year.
45. Improvement fellings.-In East Khándesh some 40,867 dead teak trees from the Jamner Forests and dead wood from two coupes of the Edlabad Range were worked out departmentally and sold for Rs. 2,974. Some 40 cartIoads of dead teak were removed on permits from the Sátpudas and 6,997 cartJoads of dead fuel were removed from all ranges on permits at Rs. 4 and Rs. 1-8-0 per cart-load, respectively. In Nándgaon and Málegaon Ranges of the Násik Division, dead firewood was sold to contractors and -its cutting was supervised by the Forest Subordinates. The revenue realized on this account was Ra. 2,109. Fifty-one thousand and ninety-six cubic feet of firewood derived from the dead and fallen Bibul trees exploited from the eoupes of the Poona Division were sold for Rs. 2,587. The cost of felling and collection being Rs. 618.
46. Selection fellings.-With a view to bringing the irregularly stooked forests of the West Khándesh Division into a more normal condition, 4 working plans prescribe a selection system and according to these plans 11 coupes covering an area of 2,023 acres were felled departmentally or sold standing. The outturn was 110,670 onbio feet and the revenue realized was Rs. 5,032 .
47. Coppice fellings.-These took place in all divisions except Ahmednagar and Sholápur. Ninety coupes aggregating an area of 17,620 acres were worked against 71 ooupes comprising 10,971 acres. The increase is due to the organized forests in West Kbándesh coming under exploitation.
48. Unregulated fellings were made in West Khándesh for the purposa of removing dead wood from the Deomogra, Shirpur and Taloda Working Ciroles and for the removal of Royalty timber from the Revenue lands in Navápur, Nandurbár and Pimpalner Ranges and by privilege-holders under
'the North Tápti Code. A volume of 286,260 cubic feet fetching a revenue of Rs. 14,823 was thus removed. In the Násik Division, 46,012 Teak and 1,641 Sandalwood trees standing in occupied survey numbers were sold for Rs. 12,972. In other divisions fellings were made for the purpose of free grants, the removal of Royalty trees from Málki lands and by persons enjoying concessions. Information as to the area over which such fellings extended or the quantity of material extracted is not available.

## (ii) Minor Forest Produce.

49. Full particulars regarding minor forest produce are given in Form No. 58. Tarwad bark is exploited according to rough working plans. The right to collect Hirda fruit and Shikelái pods and Rosha grass for extraoting oil, are farmed out. Grazing in valuable kurans and grass from Fuel and Fodder Reserves are sold by auction. Other forests are thrown open to grazing on payment of fees. During the year departmental operations had to be undertaken to supply baled grass to the famine-striken districts in Gujarát. Lbs. 18,346,192 were thus purchased, pressed and disposed of at a cost of Rs. 80,254. The revenue from Famine fodder amounted to Rs. 47,352 and for grass and grazing credited to (II) (d) was Rs. 2,57,083 against Rs. 2,17,645 of the previous year. Scarcity of grass in lands outside forest limits tended to increase the revenue from this source.
50. Further utilization of minor products.-Nothing at present is worth noting beyond what has seen said in paragraphs 47 and 48 of the previous year's Report.

## (b) Agency of Explottation. <br> (i) Departmental Agency.

51. Prescriptions of sanctioned working plans and the fear that purchasers if allowed to remove dead teak, might ring the sound trees made it necessary to employ departmental agency in East Khándesh. In West Klándesh and Sátára also this agency was resorted to beoause petty contractors did not come forward to buy the standing coupes. The Bombay Forest Survey Party cut trees obstructing their survey work in the Násik Division. Teak coupes were worked departmentally in the Poona District owing to contractors having failed according to contract terms to commence felling operations until too late in the season. There were no other departmental works worth describing here. The depôt system does not prevail in this Circle. All the felled material was as usual stacked in or near the coupes and sold "in situ" and purchasers made their own arrangements for its removal according to convenience. Of the $2,888,297$ cubic feet exploited during the year, 479,894 or 16.6 per cent. were extracted departmentally.
52. The revenue derived from the sale of major and minor produce during the year as compared with that of the preceding year was as under:-

53. The decline in the collections from Timber and Fuel is due to curtailed operations while the abnormal increase under other produce is caused by the sale of Famine Fodder.
(ii) Purchasers.
54. Nákás (Forest Depots) at the chief outlets are maintained in the two divisions of Khándesh where the permit system is largely. in vogue and a special establishment is employed to issue permits and check the material
brought out from the forests. In other Divisions the system is worked on a small soale and in consequence permits for the extraction of bamboos and other minor produce are given by Range Forest Officers. The total revenue realized from the sale of timber and other produce removed by consumers and purchasers stood at Rs. $3,70,847$ against Rs. $3,34,397$ of the previous year.

## (iii) Rights and Privileges.

55. The value of the proluce removed or consumed by privilege holders was Rs. 32,401 against Rs, 46,679 of the year before.

## (iv) Free Grants.

56. As usual small lots of wood valued at Rs. 2,420 against Rs. 2,721 of the preceding year were given free to villagers to rebuild houses destroyed by fire or other accident.
(c) Outturn and Sources of Forest Produoe.
57. The agency of exploitation and the outturn by volume, quantity or value is given in the statement below. The averaje yield per square mile is caloulated on the area actually in charge of the Department as per Form No. 46 B. : -

| ' Divinion. | Agency hy which material wal removed | Haterial removed, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Timber. | Yalue. | Fuel. | Value. | Total. |  | Bsmboos. |
|  |  |  |  |  |  | Wood | Talue. |  |
| East Kbandeal |  |  |  | $\begin{array}{r} 122000 \\ 4 \times 0_{2} 88 \\ 1,800 \end{array}$ |  | $\begin{gathered} 46,829 \\ 695.980 \\ 9.869 \\ 1,300 \end{gathered}$ | Rs. 4,260 82,414 430 65 | $\begin{aligned} & \text { i,ä113,168 } \\ & \because \cdots . \end{aligned}$ |
|  |  | 273,433 | 10,216 | 474,180 | 16,883 | 747,819 | 87,169 | 1,218,166 |
| Weet Ehandenh |  |  | $\begin{gathered} \mathbf{2 5} 586 \\ \mathbf{1 1 , 6 1 8} \\ 80 \end{gathered}$ | 93,189 343,289 4** - * |  | $\begin{gathered} 988,331 \\ 478,359 \\ 1,396 \\ 1,36 \end{gathered}$ | $\begin{gathered} 95854 \\ 23,378 \\ 89 \end{gathered}$ |  |
|  |  | 995,920 | 87,889 | 347,105 | 12031 | 789,095 | 49,319 | 149,448 |
| Nisilk, m | Gnvernment .. . <br> Furchasisis .. . <br> Free qrants . - <br> Right-Loldert .. $\cdots$ <br>  Total .$\|$   <br>    | $\begin{aligned} & 1,922 \\ & 10,757 \end{aligned}$ | $\begin{array}{r} 923 \\ 15,408 \end{array}$ | $\begin{array}{r} 9,180 \\ 147,017 \end{array}$ | $\begin{array}{r} 180 \\ 5,206 \end{array}$ | $\begin{array}{r} 9358 \\ 257,774 \end{array}$ | ${ }_{20,671}^{418}$ |  |
|  |  | 2.995 | ${ }^{237}$ | 200 | 10 | $\begin{aligned} & 3805 \\ & 300 \end{aligned}$ | 297 10 |  |
|  |  | 114,844 | 15,929 | 149,967 | 5,465 | 265,821 | 21,594 | $\begin{gathered} 87,739 \\ \text { Ha lowin } 1,888 \end{gathered}$ |
| Abuednagar |  | .". ${ }^{290}$ |  | $\begin{gathered} 39 \text { 4n3 } \\ 61,834 \\ \therefore \end{gathered}$ | 2,230 $=-$ | $\begin{aligned} & 59,493 \\ & 52,174 \end{aligned}$ | $\cdots \cdots{ }^{2,382}$ | $\begin{aligned} & \begin{array}{l} 1,200 \\ 28,122 \\ \cdots \\ \cdots \end{array} . \end{aligned}$ |
|  |  | 290 | 111 | 91,367 | 2,457 | 91,457 | 2,568 | 2383 |
| Poont |  |  | $\begin{aligned} & 11,894 \\ & 9997 \\ & 1,063 \\ & \hline . \end{aligned}$ | 101,098 465,043 <br> *.. |  | $\begin{gathered} 243,689 \\ 469,672 \\ 13,052 \end{gathered}$ | 16,428 14,065 1,1083 $\ldots .0$ | ${ }^{\prime \prime \prime}{ }^{28,985}$ |
|  |  | 161,137 | 18,944 | 6¢e, 148 | 17,82\% | 70\%,233 | 91,670 | 38,285 |
| Satara * |  |  | $\begin{gathered} 7.608 \\ 5020 \\ 5208 \end{gathered}$ | $\begin{gathered} 187,049 \\ 8,049 \end{gathered}$ |  | $\begin{array}{r} 259,290 \\ 6939 \\ 90 \in E \end{array}$ $2.965$ | $\begin{array}{r} 70,111 \\ \hline 533 \\ 581 \end{array}$ | $\begin{aligned} & \text { s7,24I } \\ & \hdashline \underset{\sim 1}{ } \end{aligned}$ |
|  |  | 58,231 | 8,231 | 203,997 | 2,733 | 862,289 | 10,064 | 37,24t |
| 8holepur .. |  | " 902 | $\begin{gathered} -\begin{array}{c} 508 \\ 0009 \end{array} \\ \cdots \cdots . . \end{gathered}$ | - 61,668 $\cdots \cdots .0$ | 9,441 |  |  | $\cdots$ |
|  |  | ${ }_{902}$ | -188 | 31,869 | 8,441 | 62,564 | 3,842 |  |
| Famine Fodder |  | $\cdots$ | $\cdots$ | ㅍ." | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
|  |  | -• |  |  | m | -* | - | -* |
| All Divigiona |  | 479809 <br> 861,073 <br> 93,700 <br> $\ldots$ | $\begin{array}{r}49014 \\ 85,026 \\ \text { 2,420 } \\ \hline \ldots \ldots\end{array}$ |  |  | 855041 $2,007,958$ <br> 28,790 1,500 | $\begin{aligned} & 86797 \\ & 86, y \cdot 44 \\ & 2,400 \\ & 70 \end{aligned}$ |  |
|  |  | 984,757 | 85,520 | 1,003,£3) | 00,709 | 2,888,887 | 1,46,2:6 | $\begin{gathered} 1,550,808 \\ \mathrm{Haw} . \text { londs } 1,826 \end{gathered}$ |


58. The figures in the above statement represent transactions from "Reserved Forests" there being none from "Protected Forests." Teak is the only important item of the Major Products but the exact outturn of this timber is not available. Among the minor products Hirda, Shikekai and Rosha grass are the most important and yielded a revenue of Rs. 7,117 or $59 \cdot 2$ per cent. of the total revenue of Rs. 12,006 derived from the sale of minor products of allkinds. The crop of Hirda and Shikekai totally failed owing to the ravages of locusts and that of Rosha grass was poor owing to scanty rainfall.
59. Out of the total expenditure of Rs. 2,47,288 incurred under A.-Con. servancy and Works, Rg. 96,959 or $39 \cdot 2$ per cent. were incúrred on the management of State Forests, the increase over last year is caused by the extraordinary expenditure on Famine Fodder Works.

## CHAPTER III.

60. The realizations of the year compare with those of the preceding year as below :-

| Fear. |  | Receipta, | Expeoditura, |  |  | Surplas. | Lese, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A. Consorvancy and workn | B. Eotablishments. | Total. |  |  |
|  |  | Rs. | Rs. | Rs. | Rs. |  | Rs. |
| 1903-04 | * | 4;33,970 | 1,57,759 | 3,48,727 | 5,06,488 | ... | 72,518 |
| 1904-05 | ... | 5,11,186 | 2,47,288 | 3,73,399 | 6,20,687 | ... | 1,09,501 |
| Difference | ... | +77,216 | +89,529 | +24,672 | +1,14,201 | ** | +36,983 |

The yoar's results inolule figurss on account of extraordinary Famine F'odder Work as under :-

|  | Year, | - |  | Recoupts. | Expenditure, |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | A. | B. | Total |
| 1801-05 | ** | . $*$ | ... | Rs. 48,421 | Rs. 1,07,865 | Rs. 1,058 | $\begin{gathered} \text { Rs. } \\ 1,08,923 \end{gathered}$ |

Deducting therefore these figures the net results stand as under :-

| Year. | Receipts. | Expenditore. |  |  | Surplue. | Loss, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A. | в. | Total |  |  |
| 1904-05 | $\begin{gathered} \text { Re. } \\ 4,62,765 \end{gathered}$ | 139,423 | $\begin{gathered} \text { Rs. } \\ 3,72,341 \end{gathered}$ | 511,764 | -* | 48,999 |

61. Compared with the average of the 5 preceding years the realizations of the year undor report stand thus :-

| Y ${ }_{\text {cars. }}$ | Hecipts. | Expenditure* |  |  | Surplus, | Loss. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A. <br> Conspryancy and works. | B <br> Estahlishmenta. | Total. |  |  |
|  | R , | Rs. | Rs , | Rs. |  | Rs. |
| 1829-1900 | 8,33,771 | 8,92,353 | 3,78,553 | 12,65,905 | ... | 4,32,184 |
| 1900-01 | 6,61,S39 | 3,79,577 | 3,69,531 | 7,49,108 | ... | 87,269 |
| 1901-02 | 2,86,224 | 1,40,246 | 3,63,420 | 5,03,666 | ... | 2,17,442 |
| 1902.03 | 3,52,043 | 1,42,747 | 3,69,443 | 5,12,190 | ... | 1,60,142 |
| 1903-04 | 4,33,970 | 1,57,759 | 3,48,727 | 5,06,486 | ... | 72,516 |
| Average | 5,13,570 | 3,42,586 | 3,64,935 | 7,07,471 | ** | 1,93,901 |
| Deduct average on account of Famine Operations | 1,73,078 | 1,87,705 | $1,262$ | $1,89,057$ | ... | 15,979 |
| - Net average | 3,40,492 | 1,54,741 | 3,63,673 | 5,18,414 | $\cdots$ | 1,77,922 |
| 1901-05-Net | 4,62,765 | 1,39,429 | 3,72,341 | 5,11,764 | ... | 48,989 |
| Difference | +1,22,273 | -15,318 | +8,668 | -6,650 | $\cdots$ | 1,28,923 |

For the purpose of giving a correct account of ordinary working results, figures on account of revenue and expenditure on account of Famine Fodder have been excluded from the year's as well as from the average of five years. The above tables will show that the year's revenue (excluding Famine Fodder Revenue) is greater than that of the preceding. year by Rs. 28,795 and by Rs. $1,22,273$ than the net average of the preceding five years. The ordinary expenditure in comparison with that of the preceding year is greater by Rs. 5,278 but is less than the netaverage of the quinquennial period 1899-1900 to 1903-04. Reasons in favour of or against these results are given in the following paragraphs.
62. The receipts of the year derived from the following major and minor sources and those of the year gone by compare as below:-

|  | 190¢ 05. | 1903.04. | Difference more or 'est in 1904-u5 |
| :---: | :---: | :---: | :---: |
| I.-Tımber ... ... | 83,099 | 77,297 | +5,802 |
| II.-Firewood ... ... | 60,631 | 67,448 | -6,817 |
| III.-Bamboos ... ... | 14,828 | 18,788 | +1,040 |
| IV -Grazing and Fodder grass includ- | 3,01,436 | 2,17,645 | + 86,791 |
| V.-Other Prodace ... | 12,182 | 25,148 | -13,316 |
| VI,-Drift and confiscated | 1,886 | 4,100 | -2,514 |
| VII,-Miscelluneous | 34,174 | 27,944 | +6,230 |
| Total | 5,11,186 | 4,33,970 | +77,216 |

Thus it will be seen that the revenue of the year including Famine Fodder Receipts is 17.7 per cent. better than that of the past year, but if Famine Fodder Receipts are excluded the percentage is only 6.6. Receipts from "Timber," "Bamboos," "Grazing and Fodder Grass" and "Miscellaneous Sources" have expanded while those from "Firewood," "Other Produce," "Drift and Confiscated" have decreased. The smaller size of coupes and consequently less material exploited accounts for the fall under firewood. Utter failure of the Hirda and Shikekai fruit and the poor crop of Rosha grass account for the collapse of revenue under other produce. Revenue under the head "Drift and Confiscated" being entirely dependant upon finds of the material must always fluctuate.
63. A contrast between the year's and the, previous year's expenditure is exhibited below:-


The total expenditure thus stood at Rs. $6,20,687$ against Rs. $5,06,656$ of the past year and is greater by Rs. 1,14,201.
64. Explanation of the important deviations under each head between the two years is as under :-

A I, + Rs. 62,114. Extraordinary expenditure on account of Famine Fodder Operations is responsible for this increase.
A.II, - Rs. 603. Less expenditure on payments of remuneration to village officers.
A V, - Rs. $55 \pm$. There were no arrear payments during the year.
A VI, + Rs. 19,684. The whole of the increase is due to the purchase of stores for Famine Fodder Operations.
A VII, + Rs. 8,739. Increase is due to more work having been done in accordance with the suggestions made in sanctioned Working Plans.
A VIII, - Rs. 24,702. The decrease is caused by the fact that 70 per cent. only of the total expenditure incurred by the Bombay Forest Survey Party having been debited to the Forest Department.
A IX, + Rs. 25,856. Increase caused by the extraordinary charge on account of Railway freight for Famine Fodder.
B I, + Rs. 19,243. Increase due to payments on account of Leave, Special and Deputation allowances to officers and subordinates.
B II, + Rs. 3,726. Payments on account of Railway fares and mileage for journeys on transfer, \&c.
B III, + Rs. 1,703. Increase due to greater expenditure under stationery, official postage and sundries.
65. The financial results by Divisions are as under :-

| Division. | Recenpts. |  | Charges |  | Surplus |  | Deficit. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1904-05. | 1903-04. | 190405. | 1903-044. | 1904-05. | 1903-04. | 1904-05. | 1903 04. |
|  | Rs. | Re. | Rs. | Rs. | R. | $\mathrm{R}_{3}$ | Rs, | Rs, |
| Direction -*. | 125 |  | 33,926 | 85,150 | ... | ... | 38,801 | 35,150 |
| Working Flane, Ceutral Circle | 6 | 7 | 19,654 | 15,080 | ** | ... | 19,643 | 15,073 |
| Fast Khándesh ... | 1,28,585 | 98,803 | 57,513 | 52,539 | 71,073 | 46,263 |  | $\cdots$ |
| West Khándesh | 1,27,656 | $\cdot 1,81,025$ | 75,963 | 62,045 | 51,693 | 68,980 | $\cdots$ | - |
| Nóakk ... .a. | 67,295 | 53,918 | 63,827 | 60,403 | 3,468 | ** |  | 15,491 |
| Ahmednagar ... | 17,370 | 25,191 | 48,089 | 41,940 | ... |  | 30,659 | 16,749 |
| Poona ... ... | 61,285 | 60,425 | 77,198 | 82,401 | ... | $\cdots$ | 15,913 | 21,976 |
| Satara -a | 39,475 | 46,979 | 68,223 | 69,247 | ... | ... | 28,748 | 22,964 |
| Sholapur ... | 20,968 | 18,323 | 27,922 | 23,250 | . | ... | 6,954 | 4,927 |
| Forest sarvess |  | ... | 34,503 | 65,425 | .. | ** | 84,509 | 55,425 |
| Famue Folder | 48,422. | ... | 1,03,923 | ... | ... | $\cdots$ | 60,502 |  |
| Total | 5,11,186 | 4,33,970 | 6,20,687 | 5,06,486 | 1,26,233 | 1,15,243 | 2,35,784 | 1,87,759 |

These figures diselose that including Famine Fodder results the Circle was worked at a net loss of Rs. 1,09,501 but excluding these, the amount of net loss calculated upon the results of ordinary working is reduced to Rs. 43,999 . This loss compared with that of the preceding year shows that conditions are on the side of improvment.

The proportion of expenditure to revenue including Famine Fodder results is $121 \cdot 4$ and excluding them is $110 \cdot 5$ as compared with 116.7 per cent. in 1903-1904 and $152 \cdot 2$ per cent. for the net average of the preceding five years. The value of stock and outstandings at commencement and close of the year stood thus :-
I.

| Falue of Stock- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| On 30th June 1905 | ... | ... | .. | .. | 54,044 |
| Difference an favorr | of the year | ... | ... |  | 2,461 |

II.


Outstandings of both kinds are greater than in the preceding year. The reason for the large amount outstanding under revenue is that the value (Rs 68,600) of Famine Fodder supplied to the Collector of Broach was not adjusted within the year.

## CHAPTER IV. <br> ADMINISTRATION,

66. Changes occurred in the personnel of Officers in the Imperial Branch by transfers. The Provincial staff remained the same. The staff of Imperial and Provincial Officers at commencement and close of the year was as under:-

67. No changes occurred in the strength or distribution of the Executive, Protective and Clerical establishments. The scheme for reorganizing theso serrices is still under the consideration of Government.
68. All the Divisional and Sub-Divisional Officers gave satisfaction in ${ }^{\text { }}$ their respective charges. Mr. Osmaston did good work in connection with the supervision of the Famine Fodder Operations, West Khándesh, he was ably assisted by the Ranger Mr. Irani. Mr. Abdul Rasool, Sub-Divisional Officer, West Khándesh, deserves special credit for his enorgy in colleoting the grazing revenue in a difficult district.
69. The relations between Revenue and Forest officials were cordial and Torest Officers received ready assistance from the Collectors in all cases in which such was requested.
70. Vidyadhar Mahadev is still at large Dattatrya Ramchundra Naralikar, Range Forest Officer, Chopda, with 2 Round Guards and Keshav Mahadev Lavand, Range Forest Ofticer, Khed, were prosecuted. The former for extortion and the latter for defalcation. The case of extortion ended in the acquittal of the accused, while that of defaloation was pending at the close of the year (since acquitted). Besides these 3 Forest Guards, 2 in West Khandesh and 1 in Poona, were prosecuted for varions charges. With these exceptions the conduct of the Protective establishments was fairly good and several Range Offeers received special commendation.
71. The dirisional clerical stafi morked satisfactorily as did also the memlers of the Conservator's office,
72. The health of the establishment was not as good as in the year * before, the number of casualties being 33 against 28 in 1903-04.
73. Of the subordinate establishments 19 resigned, 26 retired and 67 were either summarily dismissed or were superseded.

## CHAPTER V.

## GENERAL

74. 1,079 acres of Pastures reverted to the Forest Department under Government Resolution No. 535, dated 25th January 1905, in the Revenue Department. Government in their Resolution No. 331, dated 16th January 1905, on the proposal to exchange some of the Pasture Forest with lands in charge of the Forest Department in the Sholapar Division, having ordered joint inspection of the disputed areas, the work was commenced and was in progress when the year closed.

## Forest Instruction.

75. Stipendiary student Mr. F. J. Turner passed his final examination and was appointed Ranger (supernumerary), but having reoeived an offer of Extra Assistantship from the Government of Ceylon he resigned his appointment and agreed to refund the money expended on his training at Dehra Dun by monthly instalments of Rs, 50. During the year one stipendiary student Mr. N. E. Shrigley was sant to Dehra Dun. No private students went from this Circle.
76. A civil suit to recover cost of training, Rs. 465-5-8, was instituted during the year against Mr. N. S. Rajwade, 1st year's stipendiary student of the Central Circle, who was dismissed by the Director, Imperial Forest School. 'The case remained pending at the close of the year.
77. Messrs. Fry and Murray who administered the Circle during the year toured through all the Divisions and examined accounts and records of all Divisional Officers except Poona and Working Plans and inspected forests, plantations and other works such as roads and buildings mader construction.
78. The following are extracts from the minutes endorsed by Collectors on the Divisional Reports:-

## Mr. Curtis writes on East Khándesh Report :

The Collector ventures to endorse very strongly Mr. Kirwan's remark in paragraph 73 as to the inadequate pay of forest gaards and round guards. He has found hmself in reorgauzing the A'bkári Department that in Khándesh it is impossible to obtan men for the ranks on less than Rs. 10 per mensem. The pay of a common coolie in East Khándesh is never less than Rs. 8 and in the busy season may go np to Rs. 15. In the circumstancea at is imposssbla to obtain a satisfactory recrait for the Forest Department on a wage of Rs. 7.

## And on West Khándesh Report :

The Bhils of the forest tracts continue to show an almost incredible lasiness. The year was not a good oue : but notwithstanding this they refused to work in the Forests on four annas a day. Something will have to be done by reducing thair privileges to force them to work.

The year was noticeable for a series of organized attacks on the anjan forests of Dhalia prompted by wire-pullers in. Dhalia. The supply of fodder in Dhulia was not very mach below the normal (the rainfall was $19 \frac{1}{2}$ inches aganst an average of 21 ), and there was an unlimited sapply of grass avalable in Pimpalner, thirty miles away antil the end of the year. But the ryots preferred to sit atill and petition for the anjan when grass in any quantity was to ba had for the cutting a day's journey away along a fine road. It is much to be feared that the people have been permanently demoralized by the famine, The greatest strictness will be necessary in futare.

The Shirpar Bhils refused to trace fire-line at four annas a day.
Proishments for incendiarism are becoming a little less ridioulons : bat they are still far too lenient.

There was no necessity for the Dhulia people to lose one single head of cattle if thpy had walked therr cattle thirty miles into Pimpalner or taken therr carts and cat grass there. In most of the villages all crops were harvested by the middle of Jannary and the people had nothing to do. But instead of exerting themselves, they spent their time petitioning and loafing round pleaders' offices.

## B 624-12

It would be idle to protend that the forests in West Khándesh are in a satisfactory condition. They are nok. In the first place, the privilege system is far too liberal. It was necessary perhaps in the eariter days of conservancy before the country was opened up by roads and railways: bat under present conditions, when the demand for labour is great and continuons, it is nothing more nor less than a premiam on lasiness.

In the second place, it is absolutely necessary to make the people nuderstand that forest conservancy is to be taken serionsly. At present they are far too ready to suppose that when their interesta and those of the Forest Department clash, the Forest Depertment mast yield. They have in fact been thoroughly spoilt. Nothing could show this more clearly than the anjan agitation duriog the past year. Here was a pase of people who having secured a by io means bad sapply of fodder from forests and forest pastures at their doors had only to send their cattle tharty milea to find hage atretches of excellent grass. Bat they would not.

Thirdly.-The Porest Establishment are far too lowly paid. When men are placed in positions of authority with wages less than those of an ordinary ccolie, it is impossible to expect ordinary honesty. A reorganization scheme, which would give a living wage, would do immense good.

## Mr. Moore writes on Násik Report :-

Mr. Damle anticipates a year more favourable financially to the Forest Department, if the rainfall in the current season is np to the average

- But from the facts above noted the realts of a good rainfall would seem hikely to be contrary to his anticipations. The decrease in destraction by fire and the increase in impondings (not a matter for congratulation) are attribntable to the same canses, drought which lessened the amount of icnflammable grass in forest limits, but also made what grass shere was a greater attraction to cattle owing to lack of grasing outside.

The undersigned is not of opinion that the Nasik Forest Division is likely to pay its way in normal years for some time to come.

## Mr. Orr writes on Ahmednagar Report:-

The villagers' persistence in cattle trespass is regrettable-it renders increase of impoundings ineritable. But it is rather startling to find that whereas in 1903-04, when over 184 square miles of forest was closed against grazing, the number of animals imponnded (including both closed and open forests) was less than 25,000, in 1904-05, when only 85 equare miles was closed, the number of cattle imponaded from closed forsts alone was over 27,000. As the Divisional Forest Officer points out, it is only natural for unattended cattle to be attracted to closed forests by the good grass growing there. The Collector will in the next touring season endeavour to find some andes rivendi between the Porest Department and the villagers short of harassing with tronblesome prosecations, all villagers whose cattle are fonnd trespassing in foresta. Probably the fencing of clcsed areas will be found necessary. But the Collector is anable to make a definite recommendation until he has mnde himself acquainted with the country and personally inveatigated some typical cases.

Perhaps the best resalt of the year's administration was the great decrease of fires from 100 in 1903-04 to 33 in 190405. There was no fire in Akola Range. The total ares barnt in the district was only 946 acres out of the total forest area of $2,93,414$ acres.

The rigid exclusion of sheep and goats from the hill forests of Shergaon and Jfmkbed has had excellent results and should be enforced evergwhere. The Divisional Forest Officer reports that excellent undergrowth is springing op in Shergaon and Jamkhed and very promising teak seedlings in Jámkhed.

The Forest Department did good work in the campaiga egainst locasts in. Akola and the Divisional Forest Officer, Mir. Betham, appears to have talen commendable interest in this as well as the ordinary branches of his work.

## Mr. Srifte writes on Poons Report: -

In cases where convictions are reconded the Sabordinate Magistrates atill show a tendency to let off offenders too lightly. One such case from the Ambegan range was referred by the nedersigned to the High Court, Bombay, who enhanced the fine inflicted from annes 4 to Rs. 15.

The percentage of protected forest barnt 0.6 as sgainst 35.4 in the previons year shows a marked improvement. None of the fires are shown as "malicions."

The nomber of animals impounded daring the year ander report rose by over 7,000 as compared with the figures of the previons year. The increase is ascribed by the Divisional Foreat Officer partly to stricter supervision on the part of the forest stsff and partly to non-collection of grazing fees by village officers. The latter, it is to be feared, are in some cases remiss in this portion of their duties, but ander the Kánara system which has now been introdnsed uader the orders contained in Government Resolation No. S051, dated 12th Aprii 1905, Revende Department, the powers of collection will be mach simpli-
fied and complaints of non-recorery of fees should disappear. As nsual, a number of petitions regaring closare of forests against grazing or stoppage of alleged rights of way were received by the Collector during the year under report, bat as no less than 638 per cent. of the whole forest area is open to grazing of all kinds, the grounds for complaint ander this hesding are pery small. Of course, in some cases inconvenience mast be caused to villagers in connection with the operations of the Forest Department who, however, under an experienced and sympathetio officer like Mr. Wilkins, have always shown themselves ready to make any reasonable concession to the demands of local residents.

## Mr. Arthur writes on Sátára Report:-

The orders contained in Government Resolution No. 3051, dated 12th April 19n5, Revenue Department, that double fees are to be paid where cattle are canght trespassing in open forest without a pass will probably resalt both in an increase in the revenue from grazing fees and a dimination of trespassing, since there will now be less incentive to owners to send their cattle into forest without passes and pay the fees only when they are canght. The grasing fees ander the present system are ridiculonsly small and there is no reason why defailters should saffor no penalty for neglecting to pay them.

The undersigned desires specially to endorse the commendation bestowed by the Divisional Forest Oficer on Hasnodin Gulamhusen, Range Forest Officer, Karad, whose zeal in Government service recently resulted in his being set upon and severely injured by a large number of villagers. Two or three of the ring-leaders were fortanately convicted and sentenced to sabstantial terms of imprisonment.

The Division has lately lost in Mr. Keys the services of a zealous and efficient Forest Officer who has administered it with success during the past five years.

The undersigned is strongly of opinion that to improve the personnel of the lower ranks of the Department the scrvice should be rendered more attractive. The pay of the 1 west grade of beat guards fixed at a time when prices'were much lower than they are at present is hardly now a living wage, and the pension very few live to enjoy. The work is not only extremely severe but, if honestly performed, involves almost certain unpopularity in the villages of the vicinity. Temptation to peculation and slackness is correspondingly great. The undersigned is. of opinion that the two reforms most needed to render the department efficient are an increase in the scale of pay proportionate to the increase recently sanctioned in that of the Police and reduction by five years in the service qualifying for pension. A proposal recently made, that in each range there should be an annual prize of R3. 10 to the gaard whose all round work for the year should be deemed most to merit it, is one which the andersigned heartily approves. The andersigned feels sure that the amount spent by Goverament on such prizes would bé repaid many times over in increased efficiency of work.

Poona, 30th Seplember 1905.

W. A. TALBOT, Conservator of Forests, C. C.

No. R-4403 of 1905.

## Revende Department: <br> Poona, 7th December 1905.

Sulmitted to Government.
2. The Acting Commissioner, Central Division, would notice two or three points only.

Forest fires.-The Oollector of Khándesh apparently considers that Magistrates are still too lenient in punishing incendiarism. The number of cases of firing taken to Court was 42.

The number of oases of intentional firing is reported at 20.
All the cases of firing taken to Court excopt one were in respect of carelessness only. In other districts fines were inflicted; in Khandesh the panishment of imprisorment was inflicted in nearly all cases, the peroids varying from one doy to three months. In 4 cases the punishment was 3 months, in one case the punishment was whipping.

The Acting Commissioner in the absence of some explanation cannot think that such severity is justifiable.
3. Pay of the subordinate ranke.-The remarks of Mr. Ourtis and other officers on this point call for notice.

M. O. GIBB,<br>Acting Commissioner, C. D.

## No. 5025 or 1905-06.

From

# HUGH MURRAY, Esquire, 

Conservator of Forests, Southern Cirole;
To
The SECRETAŔY to GOVERNMENT,
Revenue Department, Bombay.
Belginm, 23rd September 1905.

## Sir,

I have the honour to submit herewith the Forest Administration Report of the Southern Oircle for the Forest year 1904-05, together with Appendices.
'I have the honour to be,
Sir,
Your most obedient Servant,
H. MURRAY,

Conservator of Forests, Southern Oircle.

Throteli the Commissioner, Southern Division.

ANNUAL PROGRESS REPORT OF FOREST ADMINISTRATION IN THE SOUTHERN CIRCLE FOR THE YEAR 1904-05.

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# annúal progress report of forest adDIINISTRATION IN THE SODTHERN CIRCLE 

# FOR THE YEAR 1904-1905. <br> CHAPTER I. CONSTITUTION OF STATE FORESTS. 

1.-ALTERATION IN AREA.

The alterations in area are shown in the following statement:-

| Class of Foresta, |  |  |
| :---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: |

2. Reserved Forest.-The additions include 2 miles 147 aores to the Pasture Reserve in the Parasgad Táluka, Belgaum District, and 280 acres in Kanara Southern Division, notified some years ago under section 4. In Kánara Northern Division 100 acres were disforested for the purpose of increasing the cultural area in some of the villages of the Supa Petha.
3. Protected Forest.-The whole forest area in the Mundgod Petha of Kánara Southern Division, comprising 119 square miles, was disforested with a view to subsequent conversion into Reserved Forest. The procedure adopted has occasioned a considerable amount of unnecessary inconvenience which will continue until such time as the final notification under section 19 is issued. In the meantime the various penal sections of the Forest Act do not apply, and it is consequently necessary to deal with forest offences under the Penal Code.

## 2.-FOREST SETTLEMENTS.

4. The Forest Settlement Officer, Kánara, reports that he was engaged during the greater portion of the season in Kánara Southern Division, where enquiries were completed in respect of the 119 square miles referred to in the previous paragraph, and of 127 survey numbers situated in 29 villages of the Yellápur Táluka. Further, he inspected 2 villages in the Kárwár Táluka, Kúnara Western Division, in connection with the afforestment of a few individual survey numbers, and made a hakkal assignment of $36 \frac{1}{2}$ aores to the people of Tirwal in accordance with Government Resolution No. 8650, dated 9th November 1904. Applications for disforestments for permanent cultivation were also entertained and all the measuring work in connection with these was duly completed. The Forest Settlement Report of the Supa Petha was submitted, but did not reach the Conservator until after the close of the year.
5. Forest Settlement work in Kánara is still far from completion. In respect of 122 villages in the Sirsi Taluka, the original settlement records were destroyed some time ago by fire and the work must be done again and brought thoroughly up to date. The necessity for rovision is still further accentuated by an interesting incident which occurred during the year in respect of one of these villages. A certain man was rogistered in the village records as the occupant of a large survey number comprising 88 acres of evergreen forest

Under his tenure lease he was allowed to grow coffee, pepper and spices, take all wild fruits and collect dead fallen wood, but not to cultivate or fell the trees. The number was subsequently notified as Protected Forest subject to the rights of user just specified. In December 1903 the ocoupant cut down green trees to the value of Rs. 2,500, was proseouted under section 32 of the Forest Act and convictad by the Magistrate. On appeal, however, the High Court acquitted the accused declaring that, as the land in question was in occupation at the time the notification under section 28 was issued, this notification was illegal, and consequently section 32 could not apply. A number of other evergreen forest areas stand on precisely the same footing and it is most desirable that the situation should be cleared up.
6. The Woodlands Scheme for Kolába referred to in last year's report was under consideration by the local authorities, but did not reach this office in time to be dealt with during the year.
7. In all other districts forest settlement work is practically complete.
8. The total expenditure under Forest Settlement amounted to Rs. 3,463.

## 3.-DEMARCATION.

9. Demarcation made distinctly good progress, 1,433 miles being comploted at a cost of Rs. 16,339, excluding charges on account of establishment.
10. In Belgaum 363 miles of line were cleared by contract resulting in a net profit to Government of Rs. 807 on acoount of material sold, the boundaries being marked by cut stones at a cost of Rs. 21-6-1 per mile. This rate is very high and will in future be reduced by restricting the use of special stones to the more salient points along the boundaries.
11. In the Kánara Divisions 733 miles were demarcated at a cost of Rs. 7,960, which works out to about Rs. 10 a mile. Form 48 shows a very large balance of outstanding work, but as much of this will be done by simply colouring the revenue boundary marks red-sanctioned in Government Resolution No. 765l, dated 6th October 1904-the whole avork should be completed within the next 3 years.
12. In Kolába the demarcation is effected by means of stone cairns at a cost of Rs. 12 per mile. The work is going on well and should come to an end within the next 2 years.
13. In Dhárwár practically nothing at all was done, but arrangements are being made for a vigorous campaign next season.
14. In Ratnágiri no further demarcation is apparently necessary; and in Bijápur, pending a reconsideration of the present unworkable distribution of areas between the Forest and Revenue Departments, it is not worth while to push on too vigorously.
15. The total expenditure charged in the accounts under this head comes to Rs. 22,906, and includes cost of surveying establishment, most of whom were employed for the greater portion of the year in marking out coupes and the preparation of maps.

## 4.-FOREST SURVEYS.

16. Field work was completed in $1902-03$, but the sum of Rs. 2,541 was charged to Forest accounts during the year in connection with the work of arrear mapping of the Belgaum District. With the exception of 6 sheets the map record of the Southern Circle is now complete.
17. The total expenditure under the head of "Constitution of State Forests" amounted to R=. 28,911.

# CHAPTER II. MANAGEMENT OF STATE FORESTS. 

## 1.-REGULATION OF MANAGEMENT.

## (a)-Paeparation and Control of Regolar Wobing Plans.

18. The field work in connection with the nerr working plan for the Koliba forests was completed early in the season by surveyors detailed for the purpose. The Working Plans Officer himself occupied the whole season in collecting data for the organization of the Mundgod forests in Kánara Southern Division. His inspection covered 67,810 acres of teak forest, of which he proposes to treat 40,000 as coppice under standards and the remainder as high forest with selection The remaining area should be completed by the end of February 1906 and the plans submitted during the following rains.
19. Plans for the management of (1) the Kárwár, Fuel Forests, (2) the Haliyal Teak Pole Forests, covering an area of 133 square miles, were sánctioned by Government during the year, and those of the Yellapur Forests, area 214.9 square miles, a few dars after its close Several other plans are in various stages of preparation and will be finished by the end of October 1905.
20. Upon the completion of the plans for Mundgod and Kolába now in progress and for a small portion on the slopes of the ghauts in Kánara Western Division to be taken in hand next season, the whole of the important teakproducing area in the Southern Circle will be under organization. Vast areas of jungle wood forest still remain, but until the demand for this class of timber greatly improves, there is no particular object in spending time and money in the preparation of working plans which cannot be worked.
21. There were no important deviations from the prescriptions of sanetiond working plans except delays in exploitation owing to the difficulty of obtaining sufficient labour. This difficulty is particularly noticeable in the Kanara and Dhárwár districts and is attributable to the terrible ravages of the plague in the Southern Mahrátta Country.
22. In the Belgaum Division the order of the fellings in the Godoli Blook was changed with the sanction of Government with a riew to overooming the labour difficulty by locating the coupes during the next few years as near the railway as possible. Under the same authority a revised felling list was sanctioned for the Dhárwar Range Working Plan.
23. The total expenditure incurred by the working plans party during the year amounted to Rs. 7,435. A considerable portion of the surveying establishment was employed on the preparation of forest maps for uss in the various divisions.

> (c)-Plans of Operations.
24. These were in general worked up to, though in some cases, especially as regards roads and buildings, the operations were not completed within the year.
25. All the arrangements at the new Tawargatti timber depôt were completed, butowing to the failure of rain after the end of August it was found impossiblo to complete the consolidation of the new feeder road from Tawargatti to Dandeli.

## 2.-COMMUNICATIONS AND BUILDINGS. <br> (a)-Roads and Bridges.

[^0]27. The total expenditure under this head, includirg Rs. 7,895 on account of repairs, amounted to Ris. $28, \mathbf{2 3 7}$.
(b)-Bthidings.
29. The expenditure on account of new buildings of a permanent nature amounted to Rs 27,897. On the whole, good progress was made in the erection of houses for the accom uodation of the subordinate establishment, more particularly in Kánara where they are most needed. Attention, too, is being paid to the construction of rest-houses in suitable places for the use of the Divis:onal Forest Officers, especially during the rainy season, when they will be required to superintend the extensive sofing and planting operations now under contemplation.
29. Including repairs, the total expenditure under this head amounts to Rs. 28,978.

## (c)-Miscellaneots Works.

30. The expenditure under this head amounted to Rs. 1,025, principally on acconnt of wire-fencing and repairs to wells. In Kolába some expenditure was incurred in moving the wire-fencing from one coupe to another. The effect of this fencing is most marked, but the cost is prohibitive on anything like a large scale.
31. The total expenditure under "Communications and Buildings" was Rs. 60,444.

## 3.-PROTECTION OF́ FORESTS.

## (a)-General Protection.

32. The number of cases reported rose from $\mathbf{3 , 9 8 9}$ in the previous year to 4,453. There is, however, no reason whatever to assume from these figures that forest crime is really on the increase in the Southern Cirole. On the cortrary there are good grounds for the belief that though the number of offences reported is greater, the number committed is less. The large increase in establishment within the last two years and its more efficient distribution in accordance with the requirements of working plans have undoubtedly led to better supervision of the forests and a considerable increase in the risk of detection. This opinion is corroborated to a certain extent by the fact that undetected cases have decreased from 1,507 to 1,432 , though too much reliance cannot be placed upon these figures.
33. In Kolába the number of prosecutions increased from $20 \pm$ to 420 in consequence of the vigorous campaign waged by the Divisional Forest Officer against the ruthless destruction of the forests hitherto regarded with complaisance bordering on neglect; but the deorease in the number of acquittals from $15 \cdot 5$ to 9.3 per cent. is sufficient indication of the discretion employed in the selection of the cases for trial.
34. In compounded cases the only marked increase occurs in Kánara Western Division, from 270 to 649. In this Division attempts are being made to supply the large demand for firewood by the institution of local depots, where the wood is sold at low fixed rates, and to check the hitherto unregulated system of removal by headloads which occasions considerable damage to the forests.
35. In 775 of the cases reported the offenders were let off with a warning. (b)-Protection from Fibe.
36. In last year's report it was stated that the area burnt was nearly double that of the previous year. This year matters have gone from bad to worse: in the Northern and Southern Divisions of Kinara one-fourth of the area attempted, comprising all the more valuable teak forests of the district, has been devastated by fire in spite of the most strenuons efforts at protection by the Forst Department.
37. The present system of fire protection in Kánara is absolutely ineffective, and the money expended upon it might just as well be thrown into the sea for all the benefit the forests derive from it.
38. The Conservator has lately deroted much attention to the subject, and has come to the conclusion that a radical chango of system is required. It is beyond dispute that the great majority of fires are intentionally lighted by the villagers with the object of obtaining an early supply of fresh green grass at the end of the hot weather. Other causes no doubt contribute to a certain extent, the goneral opinion being that ill-will against the Department for the restrictions placed on grazing is at the bottom of much of the mischief. Against such intentional burning, fire-lines are quite useless, for no sooner is one fire checked than another is started and so it continues until the whole of the required area is burnt. The punitive measures authorized in Government Resolution No. 7186, dated 13th October 1903, including the stoppage of privileges and doubling of the grazing fees, have not yet had time to produce any appreciable effect as, except in the case of 2 villages in Belgaum, they were not applied until atter the close of the season under report. They will certainly prove effective, hut are only justified when everything possible has been done to meet the reasunable requirements of the villagers.
39. The restrictions on geazing imposed by the presoriptions of working plans in Kánara are undoubtedly somewhat harsh and should, wherever possible, be relaxed. The Forest Department must realize that, for the present at any rate, complete protection both from fire and grazing is impossible, and that it is better to adopt a middle course as regards grazing if by that means a greater immunity from fire, by far the greater evil of the two, can be secured. Further, steps must be taken to entrust the duty of fire-protection to the villagers themselves instead of to imported labour, paying them liberally for services rendered, and resorting to punitive measures only when neglect is olearly proved. Measures on these lines will be adopted during the coming season and the results reported in the next Administration Report.
40. Whatever may be said regarding the utility or otherwise of fireprotection in the teak forests of other provinces there can be no question about it in Kánara. In the moister areas, where the teak grows best, but forms only a very small proportion of the stock, the forest is so dense that much of it will not burn at all, and in the rest owing to the absence of grass and inflammable undergrowth a fire runs so lightly over the ground as to do practically no harm. In fact an occasional fire probably does good by rendering the conditions more favourable to the regeneration of teak. In the drier areas, however, where the forest is much more open and the ground covered by a layer of dense coarse grass regularly burnt over year after year, the effects of fire are simply disastrous and, if continued, must lead to the hopeless imporerishment of the soil and subsequent disappearance of the forest.
41. In Kánara Southern Divsion where 30 per cent. of the attempted area was burnt a number of fires are attributed to deliberate action on the part of the villagers for the purpose of driving off a herd of elephants, visitors from Mysore, which were damaging the crops.
42. Dhárwar had a particularly bad season, 28 per cent. of the attempted area being burnt.
43. In all 1,031 fires were reported, in 954 of which the offenders were not discovered. - Of the 77 detected, Kolába is credited with 52, detection being easier there owing to the open state of the forests and the nature of the country.
44. The total cost incurred during the year on fire-protection amounted to Rs. $20,24 t$, equivalent to an average of about Rs. 19 per square mile of the area protected.
(c) Protection from cattles.
45. The number of cattle impounded decreased by 2,400. The decrease is general in all the Divisions except in Bijápur where the present unsuitable distribution of open and closed areas constitutes a direct incentive to trespass in the latter and the improvement in the forest establishment has made supervision more effective.
46. It is satisfactory to record that the protection of closed areas is certainly much more effective than it was throughout the Circle, and especially in Kolaba where closure is giving very satisfactory results indeed.
47. In the Kinara teak forests the grazing question still constitutes a grave problen. Many of the professional graziers have been driven off to distant parts, but many others still remsin under the guise of agriculturists and servants of influential rayats. The case certainly presents some difficulties, but it can never be good policy to sacrifice a valuable public property to the netty interests of a few cattle orners for whom ample grazing ground can be found elsen here.

## (d) Protection from injuries prom natural causeg.

48. All the Kánara officers report the presence of swarms of locusts during the cold weather, but the damage done by them was not so noticeable as in the previous year. The Divisional Forest Officor, Dharrár, refers to the increasing spread of Lantana in the felled coupes of the Dhárwár Working Circle, but derives consolation from the fact of its serving as an excellent nurse to the young sandalrood. In parts of Belgaum the Lantana constitutes itself a pest in unmitigated form.
49. The Divisional Forest Officer, Kánara Northern Division,.reports extensive damage amongst the more valuable species from climbers for the destruction of which more systematic operations are in course of adoption. Also that a very large proportion of the older trees of Xylia dolabriformis, especially in the moister zone, suffer from cankerous disease caused by fungoid growth, which set up a kind of dry rot and render the timber unfit for use. He further remarks that in comparison with the forests of the Thana Distriet those of Kánara appear to suffer very little from the ravages of defoliating insects.

## 4.-SYLVICULTURE.

(a) Natural Reproduction,
50. A considerable amount of attention has been devoted during the years to the study of the natural reproduction of teak in the Kanara Forests. Apart from this species there is little or no occasion for anxiety, as the conditions are generally favourable to the reprodnction of the commoner species and the demand for these is still so limited compared with existing supply that the necessity for special auxiliary measures hardly falls within the scope of practical politics at the present time.
51. The area producing teak capable of yielding-first class timber is of very limited extent, comprising the slopes of the Ghauts and a comparatively small portion of the plateau where the rainfall is heavy and the local conditions are eminently suitable to the growth of forest vegetation. Unfortunately it is just this prodigality of beneficent influences on the part of Nature which is so detrimental to the reproduction of the teak, requiring as it does much more light and space for its development than most of the commoner species which are capable of bearing shade and overcrowding with comparative equanimity and in many cases with actual benefit. Moreover, under the system of strict conservation in force now for so many years and the gradual deeline of the ropulation in the villages situated within the tract, there is no doubt the density of the forests is increasing to the manifest disadvantage of the teak. These adverse conditions are still further accentuated by the method of treatment adopted for the working of the forests under which the teak is practically the only tree exploited, being the only species for the timber of which there is any substantial demand.
52. On the other hand the area is not so extensive as to render auxiliary measures ineffectual, and it is quite c-rtain that much can be done by judicious planting and by fosiering the growth of natural seedlings by ordinary sylricultual operations well within the capacity of the present staff.
53. In the central portions of Kinara, where the conditions are somorrhat less favourable to forest growth in general, the proportion of teak is considerably
higher, though the tree itself rarely exceeds 24 inches in diameter. Here the difficulties in the way of reproduction are still more marked owing to the dense growth of coarse high grass which is regularly burnt over year by year inspite of the elaborate system of fire-protection organized by the Department. Natural reproduction has no chance whatever, and it is quite certain that these forests are deteriorating rapidly. Moreover, under such oircumstances sylvicultural operations are a mere waste of time and money.
54. Along the north-east and south-east borders of Kinnara, where the rainfall does not exceed 50 inches, the teak is still more predominant, but of comparatively small dimensions. These forests are worked as coppice under standards. The coupes are fairly well protected from fire and grazing, and the Divisional Forest Officer reports favourably of the reproduction both by seed and coppice.
55. In all the other Divisions the forests, where organized, are worked as coppice under standards and the reports are generally favourable, especially from Kolába where closure within the last two years has been rendered really effectual and where there are practically no fires.
(b) Artificial Reproduction.
(i) Regidar plantations.
56. The casuarina plantation at Kárwár in Kánara Western Division was extended by 6 acres at a cost of Rs. 247, the revenue from the sale of firewood amounting to Rs. 1,074 .
57. In all the Divisions the expenditure on the upkeep of plantations amuunted to Rs. 549 and the receipts to Rs. 1,662 .

## (ii) Cultural operations.

58. In both the Northern and Southern Divisions of Kánara a large number of teak nurseries were prepared in suitable places with very satisfactory results, but, owing to the delay in the arrival of the monsoon, very little planting out was done before the end of the forest year. The results of the operations reported last year in these Divisions have on the whole been successful. In the Southern Division about 90 per cent. of the seedlings survived the hot weather, and when seen by the Conservator were in a flourishing condition. The plan adopted was, removal of the seedlings from the nursery 2 or 3 together 8 or 10 days after germination without disturbing the roots, placing them in small leaf baskets, and at once planting them just as they were in selected situations.
59. In the other Divisions sowing operations were conducted on a very limited scale and with little or no success. Improved protection of the felled areas is really all that is necessary and feasible in most cases,
(c) Operations for the improvement of the growing stock.
60. More attention was paid to the cutting of creepors. In, Kánara Northern Division 20,064 were reported as cut in an area of 39,588 acres, but the work was far from being complete. For the other Divisions no figures are given, but a considerable amount of wcrk was done.
61. In both the Northern and Southern Divisions of Kánara some attention was paid to the improvement of the young teak growth by the cutting outof inferior species interfering with their development. In Kánara Southern Division 2,974 acres were gone over at an expenditure of Rs. 58. In Kánara Northern Division the work was done by the establishment in the area referred in the previous paragraph.
62. Operstions on a more extended scale will be undertaken next season.

## (d) Experiments.

63. A parcel of camphor seed from Japan, received from J. McNeill, Esq., I. C. S., was experimented with, but the results were not satisfactory owing probably to the seed not being sufficiently fresh. Some few of the plants which strirvive are reported to be in a healthy condition.

## 6.-EXPLOITATION.

## (a) Systeif of Management.

(i) Major Forest Produce.
64. Selection fellings.-The number of trees felled in organized "high forest" ras as follows:-

|  |  |  |  | Teak | Blackwood. | Junglewood, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kánara Northern Divisior Kánara Southern Division Belganm | *** | $\cdots$ | $\ldots$ | 3,420 | 293 | 911 |
|  | *** | ** | ... | 6,0.39 | 24 | 675 |
|  | ** | ... | $\ldots$ | 340 | 49 | 113 |
|  |  |  | - | 9,859 | 366 | 1,693 |

65. A very large proportion of the teak in Kánara Southern Division was unfit for conversion into logs, but came in very useful for 6 feet sleepers. The large decrease in junglewood is dae to the fact that the Southern Maratha Railway Company declined to accept any more jamba (Xylia dolabriformis) sleopers owing to the inferior quality of the timber.
66. In the unorganized areas of Kánara extensive fellings of junglewood were made to meet the rising demand from up-country and for the supply of 9 feet sleepers (Xylia dolabriformis) to Mr. Brown of Calicut on behalf of the Madras Railway Company.
67. In Kánara, Dhárwár and Belgaum a large number of selected teak poles were cut to supply the local dep6ts, though the demand for this article has declined considerably in consequence of the sale of standing coupes in the organized areas.
68. Improvement fellings.-In Kánara Northern Division and Southern Division extensive fellings of old girdled trees took place in some of the compartments of the Supa and Yellápur Working Circles. In the Belgaum Fuel cuttings useless species were exploited under permit, and in Kánara Western Division a number of overmature teak and blackwood were marked and sold.
69. Coppice fellings.-In the organized forests the following areas were exploited:-

| Division. |  |  | Areas. | Revenue per | Quality. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kanara Northern <br> Kánara Western <br> Belganm <br> Dhárwár <br> Kolába | ... |  | Acres.$\begin{array}{r} 305 \\ 1,749 \\ 2,661 \\ 138 \\ 694 \\ 3,221 \end{array}$ | Rs. |  |
|  |  |  |  | 44.5 | Teak poles. |
|  |  |  |  | $10 \cdot 25$ | Janglewood. |
|  | $\cdots$ |  |  | 444 | Railway fuel. |
|  |  |  |  | 180 | Good teak poles. Inferior teak poles. |
|  |  |  |  | 14.5 | Mixed species. |
|  | Total |  | 8,563 | 24.0 |  |

70. Except in Belgaum, where the quality of the material is particularly good, the rates Fere low though steadily rising in view of the more favourable agricultural conditions and the decline in plague.
71. Unregulated fellings.-In all the Kánara Divisions large quantities of timber were cut on permits, but the demand is lessening owing to the extreme liberality of the Kánara Protected Forest Rules which allow unrestricted felling of unreserved trees below 32 inches in girth.
72. Sandalwood operations were conducted as usual in the Dhárwár and Kánara Southern Divisions, the number of trees felled being slightly in excess of last year's.
73. A number of fellings were also made in the unorganized areas of Kánara, Belgaum, Dhárwár and Bijápur for the local supply of firewood and rafters.

## (ii) Afinor Forest Produce.

- 74. Most of the items under this head suffered considerably from the ravages of locusts in the previous year. For bamboos the demand is steadily rising again year by year, but is still less than half what it was 10 years ago before the era of plague and famine.

75. The area open and arrangements made for grazing remained practically unaltered, but an important change in the system of collecting the revenue was made under the authority of Government Resolution No. 8461, dated 1st November 1904, which, while still leaving the collection in the hands of the village offcers, allows the Forest Department to step in after a certain fixed date and complete the collection departmentally levying double fees. This measure will certainly result in an enhancément of revenue next season.
(b) Agency of Exploitation.
(i) Departmental Agency.
76. Exploitation by departmental agency accounts for 44 per cent. of the total outturn of major produce. In Kánara and Belgaum all the high forest areas are worked by the Forest Department through contractors, the logs being brought to sale depots and the refuse timber either conveyed to the saw-mills or cut up in situ into sleepers. In Belgaum the railway fuel cuttings, in Kánara Southern Division and Dhárwár the sandalwood operations, and in all. the Kánara Divisions, Belgaum and Dhárwár the fellings for the local supply of small timber are all conducted departmentally.
77. The results of departmental working compared with the average of the past 3 years are shown in the following statement:-

| Forest Produce | Average of the last 3 years. |  |  |  |  |  | 1901-1005 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Balance. | Exploited during the year | Total. | Quantity dieposed of during the year | Cost. | Reoelpts | Balance | Erploited during the year | Total. | Quantity di pored of daring the year | Cost. | $\underset{\text { Reppt. }}{\text { cen }}$ |
| Stajor. | c. $\mathrm{ft}^{\text {c }}$ | C. ft . | C. ft. | C. fitu | Re | Ra. | c ft | C. ft. | C. ft. | C. ft | Rs | Bs. |
|  | 758623 | 607 738 $\mathbf{3 , 6 5 5 , 0 1 1}$ | 12868,361 | 728698 $6,399,528$ | 209,295 | 7,50,312 | 389 934 | -612,153 | 1,001,507 | 654,148 $4,057,018$ | 8,74991 | $\begin{aligned} & 7,71,166 \\ & 2,49,968 \end{aligned}$ |
|  | Re. | Re. | Ru. | Re. |  |  | Rg | Rs. | Rs | Rs. |  |  |
| Bandalwood me Value | 1,431 | 25,792 | 17,223 | 16,405 | 1,471 | 10,615 | 290 | 22,597 | 22,817 | 23,732 | 1, $\mathbf{C O}^{1}$ | 22,946 |
| Minop. | No. | No. | No. | No. |  |  | No. | No. | Ko | No |  |  |
| Bamboon .me | 011 | 33,185 | 33,783 | 33,532 | 687 | 799 | 70 | 13,515 | 13,535 | 13,585 | 911 | 40 |

78. The fall in the opening balance for timber is explained by the working off of the accumulated stock in the Haliyal depot. The increase in timber exploited is due to the large supplies of.sleepers of which 86,759 teak and 46,034 Xylia dolabriformis (jamba) were delivered during the year. Receipts were largely inareased by the substitution of teak for jamba and by the exceptionally high prices obtained for teak at the Haliyal depôt where the average price rose from Rs. 67-6-0 in the previous year to Rs. 76 per ton.
79. Fuel sbows a satisfactory increase owing to a larger demand from the Railway Company, and sandalwood due to a considerable enhancement in price.
80.     - The Kánara saw-mills again gave most satisfactory results :-

81. In addition to the above a large quantity of scantling was prepared for use in the construction of departmental buildings.
82. As suggested in last year's report, the sleepers prepared from Xylis dolabriformis grown below ghauts aro much better than those from similar timber above ghauts and are giving entire satisfaction.
(II) PURCHASERS.
83. The following statement shows the produce removed by purchasers :-

84. The bulk of the revenue under "timber" and "fuel" is derived from the sale of coppice coupes in the organized areas and shows a satisfactory improvement. In Dhárwár, Kánara Northern Division and Kánara Southern Division, however, prices, though rising, are still much below what they were 10 years ago. Owing to the scarcity of labour and the general insecurity of life in consequence of the plague contractors are unwilling to undertake extensive operations involving large preliminary advances of capital.
85. The decrease in the grazing revenue is entirely due to the transfer of Pastures to the Revenue Department ; for Forest Froper alone the receipts are increasing in consequence of better supervision on the part of the Forest Department.

## (III) RIGHTS AND PRIVILEGES.

86. No figures are shown as it is quite impossible to arrive at anything remotely approaching accuracy. Under the Kánara Protected Forest Rules, extended to the greater part of Reserved Forests too, timber of inferior kinds below $32^{\circ}$ in girth can be cut without any restriction whatever. All the Divisional Officers complain of reckless cutting and predict disastrous results, though, on the other hand, the Collector considers the rules to be excellent. In one instance a special report regarding the wanton abuse of privileges by the people of Pala in Kánara Southern Division was submitted for consideration, but as the forests are temporarily "unclassed" it is not clear what punitive measures can be adopted. The Conservator has recommended to Government the addition of a clause in the rules authorising the Collector to suspend the privileges in case of proved neglect or abuse.
87. In the Kolaba Division the good results of the measures adopted for checking the abuse of privileges reported last year have been continued and much creait is due to the Divisional Officer Mr. Wallinger for his tact and energy in dealing with a difficult situation. Further improvement is anticipated from the steps lately taken to give increased facilities for obtaining supplies of firewood for local use,

## (IV) FREE GRANTS.

88. The quantity and value of material given under free grants is mach the same as usual. The total value was Rs. 8,408, most of the grants being made in the Kánara District for Loeal Fund and cluritable purposes.
(C) Outtern and Solbcrs of Forest Prodtce.

- 80. The following table gives the outturn of the Circle comparod with the average of the rast 3 years:-

| Prodices |  |  | Average of pest S years, |  | 190405. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantity. | Value. | Quantity. | Value. |
|  |  |  | $\begin{gathered} \text { C. ft. } \\ 1,260,955 \\ 1, \dddot{927,196} \\ \ldots \ldots . \end{gathered}$ | Re. | C. ft ${ }^{\text {- }}$ | Rs. |
| Timber <br> Sandalwood <br> Fael <br> Minor prodnce | -* | ... |  | 7,10,265 | 1,282,888 | 10,02,204 |
|  |  | $\ldots$ |  | 20,345 |  | 24,955 |
|  | ... | $\cdots$ |  | 3,31,143 | 12,072,268 | 3,39,373 |
|  |  | ... |  | 1,85,781 |  | 1,59,467 |

[^1]
## CHAPTER ITI. financial results.

93. The following table compares the actuals of the year with those of 1903-1904 and the average of the 5 preceding years:-

94. The result of the year's working was much more satisfactory than is apparent from these figures as the outstanding revenue at the close of the year exceeded that at the commencement by Rs 77,706. Had this amount been recovered in time the surplus of the year woold have exceeded that of 1903-1504 by Res. 52,696 .
95. The large increase in revenue is principally due to the enormons supply of sleepers, but the most satisfactory feature is the steady rise in the demand for forest produce generally both locally and from outside sources
96. Under A the increase is attributable mainly to expenditure on account of railmay sleepers and fuel, and partly to the cost of construction in concection with the new timber depot at Tawargatti.
97. The following 3 statements classify the revenue and expenditure of the year:-

Statement I.-Revenue.

| Particulars | Eecoupta | Percentaga. |
| :---: | :---: | :---: |
| - | Rs. |  |
| Major produce | 12,34,608 | 89 |
| Minor produce $\quad$... | 1,49,796 | 11 |



98. The proportion of net to gross income is 39 per cent. Outstandings due to the Department increased from Rs. 1,65,530 (incorrectly shown as Rs, $1,67,732$ in paragraph 99 of last year's report) at the commencement to Rs. $2,43,236$ at the close of the year. Corresponding figures for the stock on hand were Rs. $3,85,676$ (incorrectly shown as Rs. 4,42,851 in last year's report) and Rs. $3,92,268$ respectively.
99. The sum of Rs. 1,450 on account of old outstandings of revenue was written off from the accounts.

## CHAPTER IV. <br> adMINISTRATION.

100. The charge of the Circle was held by Mr. Murray up to the 20th of November 1904: from then till the close of the year by Mr. Talbot.
101. The work of the superior staff has been uniformly excellent, each and all having contributed their share to the satisfactory results of the year's working. Of the subordinate establishment a number of Rangers, Foresters, and clerks have merited special commendation, the general opinion being that the men take their work more seriously, though the recruitment in the lower grades is much hampered by the low grade of pay and the difficulty of obtaining a suitable stamp of men. The number of men dismissed, degraded and fined were respectively 31,44 and 256 compared with 22,27 and 279 in the previous year. In Kolaba there was some improvement, but in Bijápur strong measures were necessitated in consequence of the laxity of discipline prevailing amongst the forest guards.
102. Mr. II. A, Nadkarni, Extra Assistant Conservator of Forests, Kánara N. D., died of pneumonia on the 14th of December. On the whole, however, the senson was a healthy one, the mortality amongst the subordinate establishment falling from 26 to 22.
103. Two passed students from the Imperial School of Forestry were appointed as Supernumerary Rangers, and one stipendiary student was selected for training as a result of the examination held at Belgaum in October 1904.
104. The Re-organization Scheme for the subordinate establishment is still in abeyance, but the Conservator was authorized from time to time during the year to maintain temporary establishment pending final orders. In Kánara S. D. the unwieldy Yellápur Range has been subdivided into 3 and a considerable addition made to the establishment in the Mrundgod Kange.
105. Civil suits.-No new suits were instituted for or against the Department during the year. The suit referred to in paragraph 109 of last year's report, brought by Venkatesh Rayappa Shindanikar for the recovery of Rs. 335 on account of timber seized and sold by the Forest Department, was dismissed with costs.
106. The cordial sympathy and support on the part of the Revenue officials given to forest administration in the Kolába District continues to produce excellent results, and it is abundantly clear from the reports of the Divisional Officer that a very marked improvement has taken place in general protection, and that the former indiscriminate looting of the forests is being effectively checked.

## CHAPTER V. <br> GENERAL.

107. The rules published under Government Notification No. 5627, dated 18th August 1903, for the regulation of hunting, shooting, etc., in Government forests are now in force throughout the Circle. In most districts they come țo late, but in Kánara they may possibly have some effect in preserving the rapidly diminishing head of game. At present, considering the vast area of forest and the comparatively scanty population, it is really surprising how few wild animals there are and how extremely difficult it is for the license-holder to bag the very limited number allowed him under his license. The number of shooting licenses, at Rs 25 each, issued during the year was 35 . A portion of the revenue might be very usefully expended in giving rewards to informers, otherwise it is most improbable that the rales will produce any effect amongst the native community who are solely responsible for the indiscriminate slaughter of game hitherto in vogue.

10s. It may be of interest to record the presence of a herd of elephants in Kánara S. D. They came from Mysore and have remained throughout the entire year to the consternation and annoyance of the villagers whose crops and grain-stores have sustained considerable damage. With one exception elephants have not been located.in Kánara for the last 40 years.
> 109. The allotment of forest lands for cultivation to ${ }^{-}$the Marátha Kunbis in Supa (Kinara N. D.) was completed, and further assignments to the extent of 2,500 acres for the same purpose in Bhatkal Petha (Kánara W. D.) were made in accordance with Government, Resolution No. 8454, dated 1st November 1904.
110. The demarcation and handing over of the additional assignments of forest land to provide leaf-manure for garden cultivation in the Sirsi and Siddápur tálukas of Kánara is progressing, but the work necessarily takes time.
111. An important consignment of forest products, including good-sized specimens of all the principal timbers, was sent to the Bombay Industrial Exhibition held in December last where it excited considerable interest and elicited some enquiries which however have not yet taken definite shape in the form of business.

Belgaun, 23rd September 1905.

H. MURRAY,<br>Conservator of Ferests, Southern Circle.

Below Conservator of Forests, S. C.'s, No. 5025, dated 23rd September 1905 submitting the Forest Administration Report of the Southern Circle for 1908-1005.

No. 4662 op 1905.
Camp Siddapur (Rainara).
31 st December 1905.

## Reyenue Department.

## Submitted to Government.

2. The total area under forest was 4,946 square miles out of whioh 4,522 were under the management of the Forest Department and the remaining 424 under that of the Revenue Department.

## Forest Settlements.

3. The Commissioner has not yet received the Forest Settlement Report of Mundgod or Supa. The question of doing Forest Settlement work over again in Kanarra in eases where the original settlement records have been lost is under consideration. The Commissioner is of opinion that unauthorized outtings in ever-green forest areas can be dealt with under section 76 for breach of rules under section 75 (c) of the Forest Act. The question is now before Government. The wood-lands scheme for Kolába provides for about 40,000 acres of Government waste land being deolared protected forest-and placed under the charge of the Revenue Department for encouraging the growth of injaili trees for the supply of rab. The papers have been referred back to the Collector for reconciling certain differences in the areas proposed for afforestation.

## Demarcation.

4. The cost per mile in Belgaum (Rs. 21-6-1) is high compared with that in Kánara (Rs. 10) and that in Kelába (Rs, 12). The Commissioner does not understand the reason for this great difference. Moreover, though the cost in Koliba is said to be Rs. 12 per mile, from the figures in form 48 it would appear to be only a little more than Rs. 6, i. e., Rs. 1,891 for 294 miles. From the form it appears that 67 miles are still to be demarcated in Ratnágiri but it is not understood why no farther demarcation is considered necessary there. It is consoling to find that arrangements for a vigorous campaign in Dhárwár are being made.
5. The working plan report of Supa Fuel Reserves was received by the Commissioner after the close of the year and has been forwarded to the Superintendent of Working Plans.

## Protection of Forests.

6. The total number of forest offences was 4,453 of whioh 519 were taken into Court, 2,472 were compounded and 1,432 were undetected. The figures show a general increase, but the Commissioner hopes that the Conservator's belief that though the number reported is greater the number committed is less is true. The percentage of undetected cases has fallen from 40 to 32 bat still it is very high. The percentago of undetected cases in respect of injury to forest by fire is discouragingly high- $92 \cdot 5$ or 954 out of a total of 1,031 cases. In their review of the last year's Administration Report Government have remarked that they could not understand why the Collector of Kánara should not have taken the punitive measures authorized in Government Resolution No. 7186, dated 13th Ootober 1903. In this connection the Commissioner solicits a reference to this office No. 4455, dated 13th December 1905, from which it will be seen that the exercise of privileges in the protected forests of Kánara is regulated by rules whioh have received the sanction of the Government of India and that the exercise of these privileges cannot be suspended as there is no rule authorizing it. The Commissioner has accordingly recommended the insertion

B 621-18
of a new rule. Mr. Murray states that ill-will against the department for the restrictions placed on grazing is at the bottom of much of the mischief ; and that the restrictions on grazing imposed by the prescriptions of Working Plans in Kánara are harsh. He states that certain measures will be adopted during this season and the results reported in the next Administration Report. The Commissioner is asking the Conservator to make a special report as to these measures, to show in what way they are likely to cheok the deliberate incendiarism complained of.
7. Paragraph 45. - In the Bijapur District the forest pastures under the management of the Revenue Authorities are interlaced with the forest proper which is altogether closed to grazing. It has been spocially diffioult, therefore, to prevent trespassing in the latter. To remedy this the Conservator, Southern Circle, has proposed that the pastures should revert to the care of the Forest Department, and the question will shortly be submitted to Government.
8. Paragraph 47.-If it is found that any professional graziers still remain in the teak forests under the guise of agriculturists, the fact should at once be brought to the notice of the Collector for evicting them and taking adequate notice of the conduct of those revenue officers who may have assisted them in their violation of orders.

S'ylviculture.
9. It is satisfactory to find that the question of natural and artificial reproduction has engaged the attention of the forest officers.

## Grazing Fees.

10. Orders have been issued in accordance with Government Resolution No. 8461, R. D., dated 1st November 1904, and the Commissioner is awaiting the Collectors' reports on the subject.
11. Paragraph 86 of the report. -The question of the suspension of privileges in Kánara has been referred to in paragraph 6 above. In the case of Pala, executive instructions were issued by the Collector of Kánara at the suggestion of the Censervator as the lands were simply Government waste lands.
12. The financial results were satisfactory.
13. Paragraph 107 of the report.-Mr. Murray proposes that a portion of the revenue from shooting licenses should be expended in giving rewards to informers. The Commissioner thinks that if Mr. Murray wishes that action should be taken on this suggestion, it should form the subject of a special report for the orders of Government.
14. Paragraph 108.-Government has been requested in this office No. 4168, dated 20th ultimo, to ask the Mysore Darbar to take steps to drive the herd back to its territory.
15. Paragraph 109.-The Commissioner is awaiting Mr. Yennemadi's report about the grant of hakkal lands to the Kunbi Marathas of Bhatkal.
16. The relations between the officers of the Revenue and Forest Departments have been on the whole harmonious. In Kolaba especially the Collector and the Divisional Forest Ufficer, Mr. Wallinger, by their combined action are adoing much to protect the forests from devastation and the rab supply from the destıuction, with which it was threatened. In Kánara all possible care is taken of the interests of the cultivator by the Collector and his assistants, while the Conservator, Nouthern Circle, both Mr. Talbot and Mr. Murray have shown the greatest consideration for their wants that is possible along with the preservation of the forests.
17. The occupants of the coast tálukas who have neither any right nor acknowledged privilege of taking anything at all from the forests, but whose removal of dry leaves for manure had long been winked at, wore lately prevented by the Forest Department from continuing the practice, hut pending report to Government they are now again being allowed to take them.

W. W. DREW, Commissioner, Southern Divibion.

# ANNUAL .ADMINISTRATION REPORT 

## OP:

## THE SIIID FOREST CIRCLE

FOR THE YEAR 1904-1905.


PBINTED AT THE COMMISSIONER'S PRESS.
1905.

# Revente Department. 

Commissioner's office, Karachi, 28th February 1906.

Administration report of the Sind Forest Curole.

Submitted to Government. The Commissioner regrets that, owing to press of work, he has kept the report so long.
2. The Commissioner has not, so far, had an opportunity of seeing much of the Sind forests, and has therefore very few remarks to offer.

Paragraph 17.-The forest settlement report referred to was disposed of in Government Resolution No. 5143, dated the 23rd June 1905, Revenue Department. Comments on settlement officers' proceedings should not be made in a forest administration report. The Commissioner has received no representation from Mr. Bell on the necessity for amending section 24 of the -Indian Forest Act. The matter is hardly a proper topic for an admanistration report.

Paragraph 47.-The attention of the magistrates ín the Sukkur district will be called to the necessity for adequately punishing inveterate illicit graziers.

Paragraph 54.-It is regrettable that Mr . Bell is unable to report more satisfactorily on the measures taken against forest fires.
3. Mr. Younghusband had no personal experience of the work of Divisional Forest officers during the year, and has no reason to disser.t from the Deputy Conservator's general appreciation of the work of his subordinates. Mr. Bell himself appears to have displayed zeal and energy in the discharge of his responsible duties.

## A. D. YOUNGHUSBAND, <br> Commissioner in Sind.

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To
The SECRETARY to Government,
Revenue Department,
Bombay.

No. 3054 of 1905-1906.
Sind Forest Circle offife,
Karachi, 9 th October 1905.
Karachi, 9th October 1905.
Trom
T. R. BeLL, Esqumar., I.f.s.,

Deputy Conservator of Forests,
Sind Oircle,
\(.70{ }^{\circ}\)
E. P. BARROW, Esquirg, I.C.S.,

Seoretary to Government,
Revenue Department, Bombay.
.Sir,
I have the honour to submit herewith the annual administration report of tho Eind Forest Oirole for the year 1904-1905, together with its subsidiary statements.

I have the honour to be,
Sir,
Your most obedient servant,
T. B. BELI,

Deputy Conservator of Forests,
Sind Circle.
Through the Commissioner in Sind.

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\hline & & & & Total chapter V & ... & 6 \\
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\hline
\end{tabular}

\section*{ii}

\section*{List of vernacular terms used in thit report.}
\begin{tabular}{|c|c|c|c|}
\hline 1. Asri & ... & ... & ... Tamarix articolata. \\
\hline 2. Babul & ... & .." & ... Acacia arabios. \\
\hline 3. Bahan & \(\cdots\) & \(\cdots\) & ' ... Populas euphratica, \\
\hline 4. Kacha & ... & \(\cdots\) & ... New allurium. \\
\hline 6. Kamo & , \(\cdot \cdots\) & \(\cdots\) & ... Phyllanthus reticulatus. \\
\hline 6. Kandi & ... & \(\ldots\) & ..- Proíopis spioigera. \\
\hline 7. Kauh & ... & .. & ... Saocharam spontanoum. \\
\hline 8. Lai & . & .'. & ... Tamarix indica, \\
\hline 9. Nim & - & .." & ... Melias azardirachta. \\
\hline 10. Sabai & ..7 & ... & ...- Iecmmum angustifolium, \\
\hline '11. .Sar' & ... & .- & i... Saocharam arundinacoum \\
\hline 12. Tali & \(\ldots\) & . 0 & ... Dalbergis Sissoo. \\
\hline 13. Ber & * & ... & ... Zixypas jujuba \\
\hline
\end{tabular}

FOREST ADMINISTRATION REPOBT
OF
THE SIND FOREST CIBCLE
for the Forest Year 1904－1905．
c̀ HAPTER 1 ．
Constitution of state forests． Section 1．－Alleratione in area．
Large additions and exolasions have taken place during the year，but，as these alnost equal each other，there is but＇a slight difference between，the area at the close and at the commencement，of the year－of a loss of 220 acres．


2．In Sukkur，the instructions that prere issued by this office last year that form No． 46 should show the actual avea existiag at the close of eash year were not attended to．The divcrepancies of past years have now been rectified on the basis of the survey made by the Working Plans Officer．It is to this cause chiefly that the largeness of additions and exclusions as detailed above is due．The survey，thongh not thoroughly accurate，is the opiy one we have．
－3．The \(2-293\) square miles shown above，as having been transferred to zamindars，represent the area－of two kachas acqurred by this deparcment in two previqus years．Of these，one－measuring 703 acres－was transferred en \(b l o c\) by the action of the river from the left to the right．bank of the river， and，after lengthy correspondonce，was mala over，to the zamindars in the Labdaria taluka－of the Larkana district by the Commissoner in Sind．The other，admeasuring 870 acres，was claimed by a zamindar in the Kandiaro taluka of the Hyderabad district．His claim was rejected by the Collector． He again applied；further investigation of the maps available in this office convinoed me that he had a very styong claim to the kacha which he had obtained by exchange of his hakdari holding in the forest some years back． The Collector was informed accordingly，and the kacha，with our mutual consent，has been awaided to the zamindar．

4．A classification of the eroded areas with reference to the tree－growth upon them is given below：－
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & & & & 号 & 宮 & 宮 & 䓪 & ＊ \\
\hline Contain & 9 valuab & & & 970 & 66 & 37 & 79 & 1.152 \\
\hline New al & ium wit & rees & － & 336 & & 1，144 & 1，067 & 2，5．47 \\
\hline Ditto w & young & & ．．． & 1，106 & 834 & 1，077 & 728 & 3，745 \\
\hline Coupes & ader rege & & ．．． & ． 330 & 920 & 1，54 & 9 & 1，313 \\
\hline Blanks & & ．．． & ．．． & 594 & 1，251 & 1，376 & 178 & 3，399 \\
\hline & Grand & Of 19 & ．．． & 3，336 & 3，071 & 3，688 & 2，061 & 12，156 \\
\hline & Do． & or 19 & ．．． & 3，354 & 4，125 & 6，446 & 3，905 & 17，830 \\
\hline
\end{tabular}

5．Hyderabad is again at the front as far as the losses are concerned，but， unlike last year，in which there was a net loss of 2,537 acres，there has been a net addution of 4,227 acres．For the whole of sind，there has been a net gain of 7，861 acres against the net loss of 5,790 acres of last year．
6. The information with regard to the value of material on eroded areas is given below as required by Government Resolution No. 801 of the 2nd February 1900 :-
\begin{tabular}{|c|c|c|c|c|c|}
\hline - No. & Divimon & Aroe eroded after exploitatiod & Estumated value of the arem por saro yror to erosion. & Total value of tamber anted. & Price obtained after deduction of expense af exploitation for anch arees. \\
\hline & & Screa. \({ }^{\text {a }}\) & Ra. a p. & R. 2 p. & Ra. a p. \\
\hline 1 & Sukkur & 452 & 700 & 3,164 00 & 3,166 1210 \\
\hline 2 & Naushahro & 66 & 700 & 46200 & 487*. 76 \\
\hline 3 & Hyderabad & 37 & 1100 & 40700 & 41655 \\
\hline 4 & Jerruck & 79 & 800 & 63200 & 6570 \\
\hline ; & Totas & 634 & ... & 4,665 00 & \(4,727 \quad 9 \quad 9\) \\
\hline
\end{tabular}
7. The average rate per acre works out to Rs. 7-7-4, which is much higher than that of any previous year-the average for 1901-02, 1902-03 and 1903-04 being Rs. 4-1-7, Rs. 4-15-5 and Rs. 5-15-11, respectively. There has been a steady increase.
8. The following table shows the area exploited in fear of erosion as well as the prices obtained from the sale of the material on them :-
\begin{tabular}{|c|c|c|c|c|c|}
\hline No. & Division. & Area exploted in fear of erotion. & Net value of matarial nold. & Not value of materinal pn hand. & Amount apent in clearing eroding bapka. \\
\hline \multirow{6}{*}{1
2
\(\mathbf{3}\)
\(\mathbf{4}\)
4} & \multirow[b]{5}{*}{\(\begin{array}{ll}\text { Sukkur } & . . . \\ \text { Naushahro } \\ \text { Hyderabad } \\ \text {... } \\ \text { Jerruck } & \text {... }\end{array}\)} & Acran. & Re. an. p. & Prea. p. & Ra. a. p. \\
\hline & & 963 & 5,003 12 Б & & \(\cdots\) \\
\hline & & 82 & 52278 & 8980 & ... \\
\hline & & 110 & 1,294 \(12{ }^{2} 6\) & . \(\cdot\) & ... \\
\hline & & 68 & 56385 & ...... & ... \\
\hline & Total & 1,223 & 7,384 810 & 89880 & . \(\cdot\) \\
\hline
\end{tabular}
9. The sale proceeds give an average of Rs. 6-0.7 per acre against Rs. 5-11-1 of last year.
10. The following statement shows the progress made in tho acquisition of kachas thrown up in front of and adjoining reserved forest:-

11. Of the 7 claims pending on the Ist July 1904, 3 were decided in favour of and 1 against the department, 2 are still pending, and the settlement of I has been postponed, with the consent of the Divisional Forest Officer, owing to frequent changes in the course of the river in the locality.

Of the 2 claims shown as having been decided against the department, 1 was withdrawn in favour of a Samtia zamindar in the Kandiaro taluka, vide paragraph 3, above.

Of the 4 claims shown as pending against Su\&kur, the settlement of 2 has been deferred in accordance with the Commiosioner's recent orders as the kachus
they involve are low-lying, although they are reported to have been thrown up on the site of original paka forest.
12. With reference to paragraph 12 of last year's report, it may be yoted that the statements that were sent to the Commissioner revealed that, while the department liad gained 14,814 acres in Jerruck and Hyderabad, it h;d lost 38,916 acres in Naushahro and Sukkar by the action of the river dunng the 20 years ending with 1902-1903. During the year 1903-1901, there was a net loss of 5,790 acres, which increased the net reduction in the forest area to just 30,000 acres. The Commissioner, haring recognised the seriousness of the loss, circulated the statement among all Collectors, asking them to note the fluctuations that had occurred and, where the net result was a loss, to bear the fact in mind when the Forest Department made a claim to new land developed by alluvial action of the river (Commissioner's No. 3453 of the 16th/18th Norember 1901).
13. Instructions were issued by the Commissioner in Sind during the year as regards the principles on which the olaims of the Forest Department to kachas as well as other kindred matters should be inventigated and decided. These principles differ somewhat from those enunciated by previous Com. missioners, but they nevertheless recognise the importance of not catting off the forest from the river, and where it is absolutely necessary to do so, the Collectors are required to lay down conditions securing to the Forest Department the necessary access to the river and facilities for bringing water, if required, through the lands given to zamindars.
14. An area of 18-24 acres was temporarily alienated for the use of the Publio Works Department alongside of bands and canals in some of the forests of the Jerruck division only, making a total of 3,729-37 acres so alienated in all divisions up to date.

\section*{Section 2.-Forest settlements.}
15. The area finally settled during the year was 4,022 acres against 8,443 acres in the previous year, although there were 12,240 acres at the commencement of this year undergoing settlement. The delay in settlement is partly due to the appeals that have been preferred by this department in two cases against certain orders passed by the Forest Settlement Officer, which have not as get been disposed of by the Collector, although they were made in August and September 1904, respectively; and partly to the necossity for fresh maps owing to the changes caused by the river in the area notified under section 4 of the Indian Porest Act. The required maps have been supplied by the Divisional Forest Oticer at the request of the Assistant Collector.
16. The land to be acquired by exchange or payment of compensation, and for which negotiations are in progress, is \(14-26\) acres; that to be notified under section 4 of the Indian Forest Act is 10,843-13 acres, of which the balk lies in Jerruck; that to be settled under section 4 is \(1,603-28\) acres; and that to be notified under section 19 is 10,922-27 acres, making a total of 23,384-14 acres. Selection of areas is going on in Sakkur and Naushahro, bat, as nothing has been definitely settled with regard to them, their extent cannot be stated. There seems little possibility of further extensions in Hyderabad.
17. In the case of a recent Forest settlement, a right has been admitted under very peculiar circumstances. The Forest Settlement Officer, Mr. Wild, in statement No. VI, showing the alleged rights of way, says that "There are no paths marked on the map, and as they are not established paths, the details therefore cannot be given." This department was given to understand from the very beginning that he had only recominended that paths should be allowed through the proposed forest, and when I asked for a map with the proposed paths marked upon them, I discovered that they extended right up to a much older adjoning reserved forest over which he had no jurisdiction. This was promptly pointed out to the Collector. Subsequent enquiries by Mr. Wild's successor also showed that the recorded rights were not confined to paths that actually existed as such on the ground or were in use. Rights to water-courses or to forest produce, when admitted, are subject to appeal, and there seems little point in exempting orders relating to rights of way from the operation of such a wholesome rule as is applicable to other recorded rights. It is, therefore, a matter for consideration whether the Indian Forest Act should not be amended so as to render the Forest Settlement Officer's decisions concerning this kind of right appealable to the officer or Court appointed or established by the Local Government in this behalf, instead of having recourse to the provisions of sec:ion 24 of the Act, which lay down that a substitute
ahould be provided before a puhlic or private way can be stopped-a course which may necessitate the ad"ption of converging paths, which so often interfers with the proper management of the forest.

7 (a). No expeuditure was incurred on. Forest settlements during the year.

\section*{Section 3.-Demarcation.}
18. Erternal boundaries.-New demarcationwas, as usual, confined to the newly afforested, areas and the kachas handed over to the depariment during the year. A little over 14 linear miles of \(f\) arest boundary were demarcated, and 1,582 miles of previously esisting boundaries were repaired, the number of cairns put up and repaired being 18,51s. No expenditure was incurred on this, the work having been carried out by the agency of free labour, whicll is estimated at Rs. de,281.
19. The method of demarcation is the same as reported in paragraph 20 of last year's report.
20. There are no areas remaining to be demarcated.
21. Internal boundurics.- 24,141 aores were cut up into compartments in Sukkur, Naushahro and Jerruck, and the length of rides so cut-each being 20; feet wide-amounted to 127 running miles, cut of which \(54 \frac{2640}{5200}\) miles were cut at an expenditure of Rs. 421-10-1, or Rs. 7-11-9 per mile; and the remaining \(72 \frac{4916}{5280}\) miles cost nothing. On the contrary, they brought in a revenue of Rs. 753 , which is a share of the sale-proceeds of the material that resulted from ride-cutting, the remainder having been appropriated by the contractor who had engaged to cut the rides in return tor the labour employed by lim. For wants of funds, demareation work, was not oarried on in Hyderabad.
22. Repairs, to existing compartment lines were carried, out over 955 miles by free fabour, the value of which is estunated at lis. 2,300.
23. 'The area remaining to be out into compartments at the close of the jear ampunted to. 70,297 acres.

\section*{, Section,4.-FTorest surveys.}
24. No forest survey proper is going on in this Circle. The necessity for such a surveg, has been explained in paragraph 21 of last year's report.
25. The proposals to carry, on a contour surrey in many of the forests of this Circle, which are deterrorating for want of.water, and in which no irrigation works on a large scale could be undertaken owing to uncertainty as to levels, were sanctioned in Government Resolution No. \(53 \leq\) ot the 2 3rd Jonuary 19J5. Mr. Rebetro was directed to put, the work iu hand immedately on return from leave on the 28th February 1905. There was a delay of a few days at start, owing to the difficulty of collecting men and material necessary for the work, which, yas commenced on the 11th March 1905 and continued till, the end of May. During this short period, levels were run in 9 forests of the Jerruck, division, comprising an aret of 41,392 acres. The two survegars that wero attached to the Jerruck division in the boginuing of the cold season levelled two forests with an area of 5,839 acres. If the work turned out last year is added to this, the total aroa over which this kind of survey extended would ainount to 87,186 acres.
26. The length of river frontage surveged during the year was 322 miles; 205 conpes, measuting 14,229 acres, were laid out on the ground for exploitation during the following iuel year, and 343 maps were traced. The work was done parcly by survegors and partly by the passed rangers from the College of Science, Роодa,

\section*{CHAPTER II.}

\section*{Management of btatr yorests.}

\section*{Seotion 1.-Ripgulation of management.}

Sub-section (a).-Preparation and tontiol of regular Working Plans,
27. The Working Plans report of the forests of the Sukkur division was returned by the Divisional Forest. Officer in the beginning of March 1005. Mr. Robinson, who has prepared this plan, did not include therein some of the forests of this division. I accordingly directed Mr. Master to prepare the necessary maps and plans for them, as it Was desirable they should be organised; and

Mr. Robinsons's report, including these, has been sent to the senior Conservator for scrutiny, with my remarks thereon. It is proposed to work these areas on a clean felling system with a rotation of 20 years for irrigated, and 30 years for unirrigated, forests.
28. No important deviations were sanctioned during the year, and the prescriptions of existing plans were fully carried out, except where the action of the river had interfered with the coupes laid out for exploitation, thertby causing a reduction in the exploitable area.
.29. It has not been the practice hitherto to determine the area of futare coupes by the amount of fellings carried on in advanco in fear of erosion in working circles that suffer by the action of the river. With a view to remedy this defect and to make each working circle complete unto itself for the whole period of the presoribed rotation, instructions were issued to the effect. that each coupe in each working circle should never be larger than the area available divided by the number of years still to run : in other words, to make the exploitable coupe always \(1 n\)th of the area existing at the commencement of each period (where " \(n\) " represents the number of years remaining of the prescribed rotation), so as to have a sort of sliding seale dependent on the actually existing forest area at the beginning of each period.
30. The first period of 10 years for which the coupes had been prescribed in the working plan sanctioned for the forests of the Hyderabad division expired during the year, and coupes for the second period of 10 years commenciug from 1905.1906 have been marked on the maps in accordance with the plan sanctioned by Government. The coupes have been so fixed as to bring the areas most likely to suffer from encroachment by the river under exploitation in ss short a time as possible.
31. The Working Plans report of the Jerruck division, whith was sanctioned in Government Resolution No. 8347 of the 26th November 1902, prescribed coupes for 6 years ending 1904-1905, and a similar prescription for a similar period was therefore sanctioned during the year, on the basis mentioned in the preceding paragraph, in the Katiar and Shahbandar ranges, while the coupes in the remaining 4 ranges will now be prescribed, as during the course of the first period the coupes for one of the- years were held over in them for want of good offers.
- 32. No Working Plans were revised, and none will lapse within the next three years.
33. The areas which have still to be brought under working plans are \(1 \frac{14}{6} \frac{3}{2} \frac{3}{5}\) square miles of immature jungle in Naushahro, \(12 \frac{180}{640}\) square miles in Hyderabad, and \(22 \frac{5}{5} \frac{9}{6} \frac{9}{6}\) square miles in Jerruck, or a total of \(36 \frac{215}{64} \frac{5}{0}\). The area in Jerruck was 29 square miles last year, but has now been reduced on account of erosion.

Sub-section (b)-Preliminary Working Plans report.
34. There is nothing to record under this head.

Sub-section (c)-Plans of operalions. .
35. No impretant deviations from the sanctioned plans of operations were permitted. These operations were all carried out fairly well. Useless trees left standing in coupes were cut at the contractors' expense. Efforts to dress stools were also persisted in and, where necessary, the work was done departmentally at the contractors' expense. Felled material, not removed by purchasers from coupes within the prescribed time, was confiscated and sold, except in cases where its removal was likely to interfere with the young growth. The area felled over as coupes during the fuel year that terminated on the 30th September 1904 was 17,235 acres, besides which 1,223 acres were exploited as erosion strips.

\section*{Section 2.-Communications and buildings. Sub-section (a)-Roads and bridges.}
36. No such works were carried out during the year. It seems, however, advisable to convert two compartment lines in each forest into good roads to serve as export lines. This would have the effect of dividing each forest into 4 mote or less equal parts, thereby facilitating transport. The matter is still under considedration.
Sub-secition (b)-Buildings.
37. Eleven permanent works, including two rest-houses for Range Forest Officers at Ghotki and Pano Akil in Sukkur, one inspection bungalow at, Unarpur in Hyderabad, and two houses for guards at Sonda and Keti Mabrani
in Jerruck were constructed during the year at an aggregate cost of Rs. 2,437-2-8. The inspection bungalow cost Rs. 500 and is worth Rs. 1,000. and was partly built by free labour.
38. Permanent houses for guards are a desideratum in this Circle.' In Jerfuck, a few have been built during the last two years, and as funds permit their erection will be extended to other divisions.
39.* Five kacha landhis in Hyderabad and one in Sukkur were erected at a cost of Rs. 211-15-10.
40. A sum of Rs. \(318-5.2\) was spent on repairs to existing buildings in all divisions.
41. Repairs'to the Divisional Forest Officer's bungalow at Sukkur were catried out by the Public Works Department at a cost of Rs. 285.

\section*{Sub-section (c)-Miscellaneous works.}
42. Several irrigation works of varying magnitude have been carried out during the year with the object of improving the water-supply of the forests concerned. Of these, the most important is a wah excavated to supplement the present inadequate water-supply of the Miani forest of the Hyderabad division. Proposed by Mr. Shaukiram Pribdas some jears back direct from the river, a portion of this wah lies through occupied Nos., the tenants of which at first agreed in writing to give the necessary land and to share the expenses of excavation and up-keep on condition of being permitted to take water from it for their crops. The Oollector, misunderstanding the whole case and on the strength of the objections that were raised by his subordinates, doubted the utility of the work. A lengthy correspondence ensued, one season was lost, and it was not till matters were explained at great length that the Collector agreed to the arrangement with the modification that the tenants should not be required to contribute towards the expenses. The wah is now in working order, and has surpassed all expectations formed of it both by the department and the cultıvators on its upper reaches. Rs. 916-2-3 were spent on it and Rs, 6,245-3-7 on other miscellaneous works.

> Section 3.-Protection of forests.
> Sub-section (a)一Generul protection.
43. The following table, in the form prescribed in circular No. 9-171-1-F \({ }^{-}\) of the Government of India, dated the 10th June 1897, gives a classification of offences against forest law that occurred during the year:-

44. There has been an increase under all heads of crime generally. This is the direct result of a bad inundation, entailing dearth of grass everywhere, with unusually severe frosts, which still further reduced the already limited fodder available in the country. It is also due to some extent to failure of rain, inducing immigration from the hills of men and cattle in Jerruck and to some extent in Hyderabad.

Grass being scarce, people tried artificially to increase the supply by burning rank, diry and inferior growth-without doubt, the chief cause of the majoity of the cases of Gire. Curiously enough, there has been a decrease in fires in IIyderabad compared to last year ( 14 to 9 ), which is surprising and can but reflect credit upon the vigilance of the establishments.

There has been a large increase of grazing offences in Jerruck and IIrderabad, chiefly owing to scaretty of fodder and the presence of hill men and their herds, Whereas there has been a decrease in the Sukkur and Naushafiro divisions, owing partly to the grass being very scar, e in those divisions, but, I ans afrad. also, to neglect on the part of the estahishments-more especially in Sukkurto exercise proper supervision, as, with the increase in fires and a presumailly stationary number of cattle, it is impossible to otherwise explain it.

The inciease under this head is in Jorruck and Hydersbad and is due to

\section*{Fellings and thefte,} the presence in large numbers in the forests of hillmen and non-babitual graziers. thire has been a decrease compared to last year in Sukkur and Nanshaliro, said to be' due by the Divisional Forest Olficers to improved supervision and vigylunce of subordinates as regards Sukkur and to the small number of people that resorted to the forests in Naushahro owing to the incentive of fodder for cattle being wanting. The Naushahro reason probably also applies to Sukkur, though I am reluctantly forced to the opinion that the fall in cases is due to lack of energy in detection on the gart of the pstablishments conceraed to some extent. The number of fires in Naushahro and Sukkur was far greater than last year, the number of cattle impounded was nearly the same as last year, so there is nothing to show either scarcity of vistors to the forests or superior vigilance of establishments.
45. Coming to column 1, which deals with prosecutions, 104 cases were taken into court during the year and 24 were already pending. Convictions were obtained in 80 and there were 19 failures, giving \(19 \cdot 2\) per cent. of failures against 24.7 in the previous year. The real acquitials-are only 18, as 1 case in Jerruck, peuding from last year, was withdrawn, proving on further investigation to be a petty offence, and the persons implicated in it were notresidents of the province. So the real percentage of failures is only 18.4, Sukkur contributing 220 , Naushahro \(25^{\circ} 0\), Hyderabad \(11 \cdot 4\) and Jerruck nothing.
46. In Naushahro, 1 case was withdrawn under my orders, the Collector consenting to bring about a compromise resulting in the removal of men unauthorisedly planted in different parts of the Amrot forest of the Labdaria taluka to a corner which is being disforested; another was withdrawn on the advice of a Sub-divisional Magistrate, who pointed out that a trespass in a forest gazetted under section 34 of the lndian Furest Act was not a trespass in. a reserved forest notified under section 19. The point is of vital importance, as it affects the well being of the majority of our riverain forests. Before they were so gazetted, Government were satisfied that the necessary enquiries had been held in respect of them.
47. In a serious case of fire in Sukkur, the 1st olass Magistrate fined the accused Rs 75. An appeal was made to the District Magistrate, who, taking into cousideration the circumstances of the offender, did not think it necessary to enkance the sentence. In the majority of cases, fines were inflioted, ranging between 1 anna and Rs. 75. In places where illicit grazing is indulged in to a large extent by a particular tribe, the punishments ought to be severe as a rule so as to prevent others from trespassing and so as to do away with the necessity of appealing to higher authority in all cases of light punishment, as the District Magistrate of Sukkur remarked when ouce approached by the Divisional Forest Officer. Imprisonment varying from 15 days to 1 month and a half was awarded in a few cases. In many of the cases that were successfully prosecuted, the ăccused were defended by pleaders.
48. The following statement shows the details of compounded cases according to the amounts levied in each :-


49 The compensation levied comes to Rs. 1-6.0 per offence and to Re \(0-15-0\) per offender. 24 cases of petty thefts of timber were let off with a warning, and they are not included in the above statement. Of the amounts recovered as compensation, Rs. 1,524 were realised from grazing ca-es and Fis. 720 from those relating to thetts of timber. None of the compounded csses was appealed against.

50 Revised instructions for the guidance of Forest officers empowered 'to accept compensation under section 67 of the Indian Forest Act were issued by the Commissioner in his No. 3416 of the 15 th Novemher 1904, with some modifications, of which the only one that need be mentioned here is that which authorises them to accept compensation up to Rs. 50 in each case instead of Rs. 5 , as heretofore.

\section*{Ofrences against otier than yoriet law.}
51. There were two new cases of assault on Forest guards, one in Sukkur and the other in Naushahro, both resulting in convietion. In the former, there were 5 accused: one was awarded 4 years and 4 monthas rigorous imprisonment and the remaining four to 2 years and 4 months' each. . In the latter, the accused were fined Rs. oll. In the case that was pending in Jerruck, there were 10 offenders, one ot whom was sentenced to 15 days imprisonment and to a fine of Rs. 10, another to a fine of Rs. 20 , and the remaining 8 to Rs. 10 each. There wure 12 new cases of obstruction to public \({ }^{*}\) servants and 3 were pending from last year. They mostly fall under the Cattle 'Irespass Act and relate to the forcible rescue of cattle being led to the pound. Of these, 7 ended in conviction and 6 in acquittal, and 2 remained undeoided at the close of the year. A Forest guard in Naushahro, having made some false allegations against his Range Forest Otficer, was placed on trial with the result that be was fined \(\mathrm{Rs}_{\mathrm{s}} 51\).

> Suibsection (b)-Prutection from frio.
52. There were 82 fires during the year agaiust 38 of the preceding year, and the area traversed by them was 7,126 and 1,154 acres, respectively. In spite of the bad season, Hyderabad records a diminution both in the number of fires and the area burnt. In the forests of the Hala range, there was only 1 fire against 6 of last year. This shows that the double grazing fees that were then imposed have had therr effect. A similar step was taken this year, also, with the concurrence of the Collector, in respect of the Mahrabpur forest of the same dirision, where the best regenerated coupes were maliciously set on fire. The double fees were in this case introduced just when the year was coming to a close.
53. The greatest number of fires has taken place in Sukkur, which is responsible for nearly half the area burnt in the whole circle, and that alsa in spite of the faot that in nine of the forests a special staff, which consisted of 9 men , was employed at an aggregate cost of Rs. 290. The Divisional Forest Officer seems somewhat over-sanguine of the supposed good work done by these men because they were able to raise timely alarms of out-breaks of fires which, however, never led to the seizure of the culprits, except in one case, where one of them detected-whether singly or aided is not stated-an offender, not in the forest which he had been given to patrol, but in the one adjoining it. The greatest fire of the year occurred in Raoti, which is one of the nine forests referred to and which enjoyed perfect immunity for many, years continuously without any special men to look after it. The suspension of the privilege of free grazing of two of the villages in Adilpur has led to good results. With regard to the fire in Raoti, which destroyed 1,700 acres, the Collector was asked to permit the whole being closed to grazing in view of the great difficulty that will be experienced in kooping out cattle from the burnt portion. Mr. Rieu thinks that this would cause great inconvenience to those who depend upon the forest for grazing, but he seems to little realise that a much greater hardship will result to these very men, if the forests is not effectually protected against wholesale incendiarism, and that the only way to do this is to make the people feel the necessity of luoking after and taking care of such reserves. There are no rights or privileges in the forest, so that really the grazing is allowed only as a matter of grace.
54. In Naushahro, fires were almost wholly confitied to three forests helonging to three different ranges. However, no special measures were taken for their protection by the Divisional Forest Officer. Fires have not received the: attention their importance merits from the Divisional Forest Officers in Sind, who have, it seems, been so far content to chronicle their occurrence. No
steps were formerly takon to make the Forest subordinates or the Forest contrictors, Whose workmen are quartered throughout the forest, realise their respecllve responsibilities, and to take ordinary precautionary measures. It is hoped, however, that the instructions that have been issued from time to tim \(\%\) and the fines that have been inflicted on some of the contractors will produce better resulta.
55. The following table shows the origin of fires as reported by Divisional Forest Officers :-
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{2}{*}{Divicion.} & \multicolumn{2}{|l|}{Fire originatang in doportmental Gre-couservaney operatious,} & \multicolumn{2}{|l|}{Fire aroming outer fire treos.} & \multicolumn{2}{|l|}{Fire dine to earorlesaness or zocidont onkDury causee.} & \multicolumn{2}{|l|}{Firen orginatiag from intention or malica} & \multicolumn{2}{|r|}{Torale} \\
\hline & Ne al frea, & Arem burat. & Ka & Arem. & Na. & Areas & Na. & Ares & Na & Aram \\
\hline & & Acres, & & & & Acres. & & Acres. & & Aares. \\
\hline Sukkup & *- & \(\cdots\) & 8 & 316 & 19 & 2,909 & 2 & 45 & 29 & 8,270 \\
\hline Nanahahro ... & *** & \(\cdots\) & 1 & 1 & 22 & 1,412 & ... & -* & 23 & 1,413 \\
\hline Hyderabad ... & ... & ... & 2 & 13 & 7 & 547 & \(\cdots\) & ** & 9 & 660 \\
\hline Jarruck & ... & & 1 & 596 & 20 & 1,287 & & & 21 & 1,883 \\
\hline Total ... & & *** & 12 & 926 & 68 & 6,155 & 2 & 45 & 82 & 7,126 \\
\hline
\end{tabular}
56. Hardly any reliance can be placed on the manner in which the analysis of these fires has been carried out. The Divisional Forest Officer, Hyderabad, says that the fire which led to the imposition of doubls gracing fees in one of his forests was due to malice, but there is nothing to prove this beyond circumstantial evidence. Mr. Mokenzie says that "Probably something like 50 per cent of the above fires classed as due to unknown causes would, if their origin had been deteoted, be found to have been oansed intentionally." In many cases, the causes, if efforts were made, should not be impossible to ascertain, and the necessary instructions will be issued in the matter.
57. The following statement shows the area that enjoyed continuous immunity since 1901-1902 as well as other particulars required by Government Resolution No. \(\mathbf{2} \ddagger \mathbf{5}\) of the 12th January \(1905_{\text {: }}\) -
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Drimian.} & \multirow[t]{2}{*}{Anow} & \multirow[t]{2}{*}{\begin{tabular}{l}
Ertent of valuable forest for Nous protection \\
 dearable
\end{tabular}} & \multirow[t]{2}{*}{Proportion of reluable fareat Whroh has been proteoted from fire for fome years.} & \multirow[t]{2}{*}{} & \multicolumn{3}{|l|}{Extent of forest BORTF BORING FHE TEAB.} \\
\hline & & & & & Open & \[
\underset{\text { foreeth }}{\text { Clos }}
\] & Total. \\
\hline & Acrea. & & & & & & \\
\hline Sukkur . & 269,310 & & & & & 683 & 3,270 \\
\hline Naushahro .- & 129,861 & 129,861 & 129,002 or 999 per cent. & & 530 & 883 & \\
\hline Hyderabad & 143,180 & 143,180 & 1388774 or 977 per cent. & ... & 239 & \({ }_{1} 821\) & 560 \\
\hline Jerruck & 141,463 & 140,463 & 135,285 or -96 per cent. & ... & 826 & 1,057 & 1,883 \\
\hline Totar ... & 682,814 & 682,814 & 664,137 or .97 per cent & \(\cdots\) & 4,182 & 2,9全4 & 7,126 \\
\hline
\end{tabular}
58. The forests of Sind are considered to be all valuable enough to be protected from fire and are, as a matter of fact, no protected, nearly withont exception, by means of rides of from 20 feet to 30 feet half a mile apart at right angles to each other. As regards the staff, it is considered that, failing the moneynecessary for the entertainment of an extra staff for the special purpose of protection from fire, the guards are well able to do the daty as their sylvicultural duties have been hardly even nominal, and they have always had sufficient time. The area in column 4 is the total forest area in Sind. There is no forest land immune from fires.

\section*{Sub-section (0)-Protection from cattic.}
59. To the total ares of reserved and protected forests, the percentage of forests open to grazing and browsing works out to 84 and 41, respectipely, against 87 and 42 of the preceding year.
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- 237-3

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60. A comparative statement of cattle impounded from open and closed foreats is given beluw :-
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{4}{*}{No.} & \multirow{4}{*}{Diviaoa.} & \multicolumn{2}{|l|}{\multirow{2}{*}{From open}} & \multicolumn{4}{|c|}{From chosed mozrets.} & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} \\
\hline & & & & \multicolumn{2}{|l|}{1903-1904} & \multicolumn{2}{|l|}{1904-1905.} & & \\
\hline & & \multicolumn{2}{|l|}{} & \multirow[t]{2}{*}{} & \multirow{2}{*}{\[
\left|\begin{array}{|c|}
\text { Holdang } \\
\text { no per. } \\
\text { mite. }
\end{array}\right|
\]} & \multirow[t]{2}{*}{Holding Perumite
for open foreata} & \multirow{2}{*}{\(\underset{\substack{\text { Holdivg } \\ \text { no pers. } \\ \text { muts. }}}{\substack{\text { and }}}\)} & \multicolumn{2}{|c|}{Total.} \\
\hline & & 1903-1904. & 19041905 & & & & & 1203.1904 & 1904-1906 \\
\hline 1 & Sukkur ... & 7,496 & \$,441 & 2,965 & 4,227 & 1,471 & 5,536 & 14,678 & 11,448 \({ }^{-}\) \\
\hline 2 & Naushabro. & 1,164 & 453 & 1,246 & 2,266 & 537 & 3,358 & \(44^{1,70}\) & 4,348 \\
\hline 3 & Hyderabad & 1,084 & 1,452 & 2,143 & 5,417 & 2,995 & 7,822 & 8,594 & 12,269 \\
\hline 4 & Jerruck ... & 825 & 1,154 & 3,007 & 656 & 2.192 & 3,206 & 4,488 & 6.552 \\
\hline & \[
\begin{array}{ll}
\text { Total } \\
.190+1 & \text { of } \\
\hline 105 .
\end{array}
\] & 10,509 & 7,500 & 9,861 & 12,566 & 7,195 & 19,9:2 & 39,436 & 34,617 \\
\hline , & preceding 3 years & - & 9,104 & ... & \(\cdots\) & 8,343 & 13,924 & ... & 31,371 \\
\hline
\end{tabular}
61. Hyderabad ana Jerruck record somewhat heavier mpounding* this year than last year, as the forests were resurted to in large numbers by non-resident graziers and maldars fiom the hills without getting their eattle registered. The decline in the other two divisions is prinoipally the result of the new grazing rules, under which eattle-owners can save their eattle frum being impounded by payment of a month's grazing fees as a fine even when found graziug in closed blocks. This concossion probably was not considered to be necessary in the case of hillmen and mon-residents of Sind, which would atcount for the increase in Jerruck and Hyuelabad. Enquivits will, however, be made as to what the cause was that led to a large nuinier of cattle being sent to the pound, notwithstancing the rules being in torce. The inor ase in the number of cattle impounded that were without nermits seems to puint to retnissness in collecting grazing revenue ou the part of the Forest subordinates.
62. 'A's a protection against injury by catcle, the areas under reproduction are surrounded by tences of branch wood and thorus, and they are usually strong enough to keep out cottle, but it is not an uncommon practice in Sind to find these hedges broken through and oattle ler in. for the arreas contain invariably the bent grass in the wh ile forest. The amount of injury to young growth in a year hke the one under reference was somewhat severe. The evil caunot altogether be stopped, but is capable of betrg minimised by the vagiance of the sub shluate staf and of the officers in exeeutive charge of forest divisions.
63. 270 miles of new hedges were constructed and 1,071 miles of old hedges were repaired duriug the yent. Of the former, 6 miles were put up departmeatally in Sukkur at a cost of Rs. 76, the rest of the work-which is estumated at Rs. 11, 5 ôtu-having been doue partly by guarda and partly by maldars.

> Sub-section (d)—Protection against injuries from natural causes.
64. The cutturg of the kimo oreeper was carried out in Jerruck and Hyderabad. In the former, the Divisional Forest Officer siys it was not dune in two of the ranges as satistactisily as might be wished. In the latter, this operation extended oter 600 acres. No expenditure was incurred, the work huving been done by guards.
65. The year has been characterised by frosts of unprecedented severity, and they have not failed to leave their mark both upon mature and immature growth. save a few localities, which by their situation or by suffinency of -Gub-suil moisture were somewhat favourably eircumstane d, the damage done throughout was considerable. Ine roliage and finwers of grown-up trees were destroyed, and a very large percrutige of seedlings succumbed t, the frost, notwitustaading that they were protected by grass hoods. Many of the seedlings, howeter, that were not killed ourright revived in the following* spring.

Section 4.-Sylticulture.
Bub-section (a)-.Vatural reprodnction.
66. In the absence of rainfall, which is always scare in this province, the forests depend on flood nater from the Indus for their reqencration. In this respect, also, they were very badly off during the year under repurt. The area over which the lateral overflow of the river extended was 251,467 acres agninst 330,683 acres of last year, against 521,696 acres that are capable of irrigation in a year of abvormal floods, and against the total forest area of 68: 814 acres. With the exception of a short high rise, lasting but a few days, the river was not only low but unsteady, owing to which some of the area that came under the influence of floods was not sufficiently saturated to ensure proper regeneration. Arlificial aids to natural reproduction were persisted in. Were it not for this, the area reached by floods would have been atill less. With such low floods, which were followed hy unusual frosts, the area that whs successiully reproduced was considerably limited, being confinedcluetly to low-lling plares and tracts situated in the innmediate vicinity of backwaters. Asri stood the frist the best; lai and tali were not much affected, while babul and kandi were consideribly damaged, greatly reducing the isual flowerng and consequent producti in of pods. Of the highalying forests, the reproduction was goid o ly in places where there was no lack of sub-noil moisture, a strihing invtance of which is reported from Pai forest in the llyderabind division, where the regeneration of handi, lai and buhirn from coppice root-suckers was very satisfactory. Such places are fow and far between.
67. With reference to paragraph 58 of last year's report, it may be stated that andither conference with the officers of the Public Woiks. Department was held on the 18th October 110 h , at which two concrete cases were discus-ed-ie., one of Mani foregt ot ther Hyderabad division and the other of Garkn forpst of the Jerruok division In the ease of the former, the Public Works Department recognsed their responsibility to make good the deficiency that their works had oceracioned in its water-supply, while in the case of the lartur, relying on.Government Resolution No 7855 of the 29th October 1897, which relates to an extra bidetet erant for the construction of two sluices at the expeuse of the Forest Department, they decli iel to do anything unless funds were proviced by us, tha difficulty has aloo happily ceased in view of the orders convey-d in Government Resulution No. 1-79 of the 15th February 19)5, which lay down a general principle governing cases similar to that of Garkn. Some large irrigatiun sehemes, in which it is songht to disforest the areas they alfect, wert received for top. rt and remarks which have been, duly submitted, and are now under the considration of the Commissioner.

> Sub-section (b)-Artifirial reproduction.
68. From the area shown against Sukkur under regular plantations last year, the Divisional forest Officer has now excluded 31 acres, as he repoits that on actual measurement the area under tali was fnund to be 207 acres ins + ad of 236 : 67 ncres were alded during the year. Other divisions do not reoord any additions or extlusions. The area nt the close of the year. was 311 netes. 18 maunds of tali seed were sown in the nurseries of the sukkur divisim, and froin then 61,570 plants were transplanted, mostly in July and Angust and some in September, in accordance with the method described in pasaeraph t0 of last year's rep rt, of which \(\mathbf{0} 0,810\) are reported to lave been successtul and to have resisted the frost very wrll ; but the-transplants of Seprember have-sittered mach. 2,j00 tali cuitinge were also planted, of which 1,435 suivived. In \(\lambda\) au-hahro, \(4 \geq\) dolz cutrings were put down after the frosts in a portion of a forest burnt by a fire, and are reported to be in a very healthy condition. La-t yrar's ruttings in one of the forests have failed The tali plantation in Hyderabad is thriving well, and has been extended by the addition of 120 transplants, which have attained a beight of 1 to 2 feet. The nim plants are also reporred to be doing well. Ber seed was s'rwn in some of the ranges of Hydrrabad and Jerruck in snme open dry places with a view to subuequently utilise the trees tor lac cultivation. The seedlings were almost all killed ontright by frost, and the few survivors in Jerruck have only been kept alive by daily haud-watering.
69. Cultural operations proper ex'ended over an area of 9,712 acres out of 25,042 acres shown in form No. 56 , the rest repiesenting the area that has been closed for reboisement by natural armeres. The former area comprises such portions of exploited crupes, blanks, and kachas as have no chance of covi ring themselver with a spontanfous growth of inseful species. Such places were brondcasted with, morily, babul sead and partly with kandi seed after the fall of the river, the amount of seed used being 2,361 manadg

The germination was fairly good, but the seedlings, having obtained too little water to give them a fair start, were not very healthy, and a large percentage succumbed to the unusually severe frosts that followed. Save in one case in Jerruck, the cultural operations with the aid of cereal cultivation in all difisions brought forth good results, which were removed for a time by these frosts; but the growth, with few exceptions, is reported to have revived with the advent of spring, and looked fairly flourishing. To the area so reproduced ( 1,382 acres), Sukkur contributes 1,085 acres.

Sub-section (c)-Operations for the impravement of growing stock.
70. Thinning operations were carried on in one of the old tali plantations in Sukkur to allow of more room and light for the growing stock. The material obtained from these thinnings realised Rs. 649. In other divisions, the creeper cutting was attended to by forest guards as far as possible.

\section*{Sub-section (d)-Experiments.}

\section*{71. No new experiments were undertaken during the year. \\ Section 5.-Exploitation. \\ Sub-section (a)-System of management. \\ (i) Major forest produce.}
72. The annual coupes are, as usual, felled under the clean felling system The area so felled during the fuel year onding the 30th September 1904 was 8,171 acres in Sukkur, 1,774 acres in Naushahro, 3,343 acres in Hyderabad and 3,947 acres in Jerruck, or a total of 17,235 acres against 16,328 acres of the preceding year. In Naushahro, the area is just half what it was in the year before, because of the doubling of the rotation, while it is greater in Jerruck by 2,755 , because all the coupes were sold, none being held over as was the case in 1902-1903. The clearing of eroding banks was carried on over an area of 17,235 acres; and applications for free grants were, as usual, met from such of the coupes of the following year as suited the grantees the best.

> (ii) Minor forest produce.
73. The system of exploitation in this case is the same as reported in paragraphs 65 and 66 of last year's report. As regards graziug, the concession of taking out yearly passes at reduced rates has been taken advantage of by but a few maldars in Sukkur. Lac is attracting a good deal of attention, and the revenue from it is increasing greatly. The sales held this year in Hyderabad and Jerruck have fetched Ms. 37,108 against Rs. 22,551 last year. The purchasers of this produce complain that lac is removed by stealth and sold in large towns, But as the special rules for the transport of forest produce apply only to timber as defined in the Indian Forcst Act, the Forest Department is unable to afford them any help whatever. The matter is having attention.

> Sub-section (b)-Agency of exploitation.
(i) Departmental agency.
74. This agency is but sparingly employed either for the exploitation of major or minor forest produee. The out-turn under the former head was only \(17,942 \mathrm{o}\). ft., which realised Rs. 569 , and the value of the minor produce exploited was only Re. 819.

\section*{(ii) Purchasers.}
75. All the coupes that were laid out for exploitation during the fue year 1904-05 were sold. The amounts realised from them are given below, together with their areas:-
\begin{tabular}{|c|c|c|c|c|c|}
\hline No. & Dipivion. & No. of coupes. & \({ }^{\text {areas. }}\) & Value realiced. &  \\
\hline \multirow{7}{*}{\[
\begin{aligned}
& 1 \\
& 2 \\
& 3 \\
& 4
\end{aligned}
\]} & \multirow[b]{6}{*}{\begin{tabular}{l}
Sukkur \\
Naushahro . \\
Hyderabad. \\
Jerruck
\[
\begin{gathered}
\text { Total } \\
1904-1905
\end{gathered}
\]
\end{tabular}} & \multirow[b]{5}{*}{\[
\begin{aligned}
& 72 \\
& 25 \\
& 46 \\
& 44
\end{aligned}
\]} & Acres. & Rs, at p. & Re. a. p. \\
\hline & & & 6,090 & 77,622 00 & 121111 \\
\hline & & & - 1,648 & 5,285 00 & \(3{ }^{3} 3 \cdot 4\) \\
\hline & & & 3,179 & 1,06,862.0 0 & 33910 \\
\hline & & & 3,511 & 62,421 0 & 17126 \\
\hline & & 187 & 14,428 & 2,52,100 00 & 1778 \\
\hline & \[
\begin{gathered}
\text { TOTAL } \\
\text { 1903-1904 }
\end{gathered}
\] & 203 & 17,235 & 2,17,393 00 & 1243 \\
\hline
\end{tabular}
76. The receipts from the sale of wood under the permit pass system declined from Rs. 10,\(9 ; 1\) to IRs. 8,837 for reason that ghat people who retail wood in large towns are now compelled to purchase wood from coupe con-tractors-that is, are confined to the current year's coupes for their material. In Sukkur and Jerruck, there was an increase of Rs. 313 and Rs. 1484, respectively, in grazing collections, while Naushahro and Hyderabad show a decrease of Rs. 1,178 and Rs. 442, respectively, which is said to be due to scarcity of grass resulting from low inundation in the former, and to the migration of cattle owners to the hills in Jahuary and Febrnary 1905, owing to rainfall and failure of the babul pod crop, in the latter. There is a net increase of Rs. 176, the total amount realised being Rs. 48,398 against Rs. 48,223 in the year previous. Babul pods have brought in Rs. 23,131 against Rs. 23,669. The revenue would have been much greater had not the crop been greatly damaged by the unusual frosts mentioned above. The amount which this farm futched was really Rs. 36,675, but the recovery of nearly half the amount has been held in abeyance pending the settlement of the question of remission which is now before Government. The lac farms in Hyderabad and Jerruck were sold for Rs. 37,108 against Rs. 22,551 , while the amount actually credited during the Forest year from this source was Rs. 21,324 against Rs. 7,135 of last year. The sales of other farms, viz., sar reed, kanh grass and fishery, were atteuded also with better results, the realisations from them being Rs. 2,251, Rs. 1,2०2 and Rs. 4,421 against Rs. 1924, Rs. 719 and Rs. 3,197, respectively.
77. The indent of the North-Western Railway for loco.-fuel for the fuel year that onded on the 30th September 190』 was 110 lakhs c . ft ., against which the contractors delivered \(11,4 \in 2,375 \mathrm{c}\). ft. To this, Sukkur contributes 5,136,275 c. ft, Naushahro 900,450 c. ft, Hyderabad \(4,008,900\) c.ft., and Jerruck 1,416,750 c. ft. Their indent for the year 1904-1905 is 150 lakhs c. It., which is unusually large, not having been made in any previous jear since the railway took to burning wood un the Sind section. Our arrangements, the details of which are given below, with the contractors were for 166 lakhs 0 . \(\mathrm{ft}^{2}\). The extra quantity was arinnged for to make up for possible failures. The Manager at first declined to accept the extra wood, but eventually gave in when the inconvenience that would have resulted from his refusal was pinted out to him. The contractors experienced some difficulty at Kotri and Anri, two of the principal fueling stations, for want of space at the former, and owing to the refusal of local zamindars to allow the landing of wood along the siding at the latter place. In consequence of this, the operations of the contraotors were seriously hampered, and they applied for extension of time beyond september 1905 to be able to deliver the stipulated quantities, which was atter some correspondence granted by the Manager up to the end of December 1905, when our connection with the railway ceases, the agreement be tween the Forest Department and that body having been brought to a termination by the orders contained in Government Resolution No. 2777 of the 3rd April 1905.
78. The details of the arrangement mentioned above are as follow:-
\begin{tabular}{|c|c|c|c|}
\hline From coupes of the year & ... & C. ft. & 7,183,000 \\
\hline From erosion fellings : ... & ... & & 449,000 \\
\hline Froni burnt areas & & " & 397,900 \\
\hline From surplus stock in possession of tractors & con- & " & 3,788,300 \\
\hline From revenue waste lands ... & ... & " & 3,260,000 \\
\hline T'o make up last gear's deficits ... & . & " & 1,321,800 \\
\hline Total & ... & ft. & 16,400,000 \\
\hline
\end{tabular}
79. Other publio bodies that were served by coupe contractors were the Hyderabdd Municipality, the Hyderabad Local Funds, the Hyderabad Central Jail, the Commissioner's steamer, and the steamers under'the Indus Commission, the amounts of wood fuel supplied in each case being \(66,992,19,027\), \(5,045,28,648\) and \(66,679 \mathrm{c}\). ft., respectively.

\section*{(iu) Rights and privileges.}

S0. From certain forests of the Naushahro division, 114,311 c. ft. of firewood were removed in head-loads by right-holders for domestic use against 93,703 c. ft . in the previous year, the estimated value of the material being Rs. 1,058 and Rs 868, respectively. Firewood and thorns are also taken from many of \(t^{\text {he }}\) forests of this Circle. both as a privilege under settlement and otherwise,
but of these no record is kept. The value of free grazing enjoyed by virtue of privileges under settlement amountod to R9. 15,291 against Rs. 28,264 in theypreceding year, the number of oatile which these amounts represent being \(\mathbf{1 3 , 6 7 7}\) and 25,719, respectively. Sukkur alone is responsible for this fall, whioh may safely be attributed partly to the suspension of the privilege of free grazing referred to in paragraph 53 above. This difference is due to the faulty system of registration of numbrrs of cattle, the number now being found to be a great deal less thap what was originally registered under the settlements, chiefly in Sukkur, showing the great reduction due to years of bad inundation and other causes, and consequent.shortness of grass and, incidentally, to the deterioration of the jungles.

\section*{(iv) Free grants.}
81. The total value of free grants amounted to Rs. 9,940 against Rs. 6,932 in the year previous. The former figure is made up of Rs. 9,300 in the shape of free grazing and of Rs. 640 in the shape of timber and minor produce given away. The value of free grazing last year was Rs. 6,60 f, the excéss being due to a large number of Kohistan cattle having been admitted to some of the forests in Jerruok and Hyderabad at the request of the Collector of Karachi.

\section*{Sub-section (e)-Out-turn and sources of.forest produce.}
82. These will be gathered from the following statement, which is in the form 'prescribed in Government Resolution No. 2872 of the 12th August 1897. The result of the enquiry referred to in paragraph 74 of last year's report has proved that my surmise that the cattle are counted as many times over as passes are issued for them in a year was cörrect. Passes ane not issued for a less period than two months, and as the bulk of cattle-owners take out such passes their cattle were counted half a dozen times over in order to ascertain the number of cattle that grazed on payment in a twelve-month. The practice has now been stopped, and it is to, this that the reduction in the number of cattle (on which fees were paid) from 516,090 in 1903.04 to 125,417 in 1904-05 is due :-

83. The expenditure incurred under some of the headings dealt with in this chapter is given below:-
1. Communications and buildings.
\begin{tabular}{|c|c|c|}
\hline \[
\ldots{ }^{\mathrm{R}_{\mathrm{L}}} .
\] & \[
13
\] & \\
\hline 289 & 8 & 3 \\
\hline ... 76 & 0 & \\
\hline ... 3,714 & 0 & 0 \\
\hline ...14,208 & 5 & \\
\hline
\end{tabular}

\section*{CHAPTER III.}

Financial besults. .
84. The revenue and expenditure of the Financial year, as compared with the past year, were as followi:-
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Year.} & \multirow[b]{2}{*}{Receipts.} & \multicolumn{3}{|c|}{Expenditurg} & \multirow[b]{2}{*}{Surplus,} \\
\hline & & \begin{tabular}{l}
A. \\
Conservancy and works.
\end{tabular} & \begin{tabular}{l}
R \\
Establishment.
\end{tabular} & Total. & \\
\hline & Rs. & Rs. & Rs. & Rs. & Rs. \\
\hline 1903-1904 ... & 3,19,018 & 19,414 & 1,08,680 & 1,28,094 & 1,90,924 \\
\hline 1904.1905 & 4,05,571 & 31,519 & 1,08,768 & 1,40,287 & 2,65,284 \\
\hline Indrease & 86,553 & 12,105 & 88 & 12,193 & 74,360 \\
\hline Deckease . & \(\cdots\) & ** & ... & ... & ... \\
\hline
\end{tabular}
85. Those for the Forest year are compared below :-
\begin{tabular}{|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Year.} & \multirow[b]{2}{*}{Receipts.} & \multicolumn{3}{|c|}{Expenditure.} & \multirow[b]{2}{*}{Surplus.} \\
\hline & & \begin{tabular}{l}
A. \\
Conservancy and works.
\end{tabular} & \begin{tabular}{l}
B. \\
Establıhment.
\end{tabular} & Total. & \\
\hline & Rs. & Rs. & Rs, & Rs. & Rs. \\
\hline 1903-1904 ... & 3,21,145 & 20,221 & 1,08,075 & 1,28,296 & 1,92,849 \\
\hline 1904-1905 ... & 4,06,954 & 32,123 & 1,08,983 & 1,41,106 & 2,65,848 \\
\hline Increase ... & 85,809 & 11,902 & 908 & 12,810 & 72,999 \\
\hline Decrbase ... & ... & ... & ...' & ... & ... \\
\hline \[
\begin{gathered}
\text { Average of pre- } \\
\text { CEDING } 5 \text { yEARS. }
\end{gathered}
\] & 2,99,022 & 29,029 & 1,15,521 & 1,44,550 & 1,54,472 \\
\hline
\end{tabular}

\footnotetext{
86. The gross revenue is the highest ever obtained since the year 1895-96, in which it was Rs \(4,65,745\), and the surplus also beats all records as far back as the year 1891-92, the year prior to which records a surplus of Rs. 2,72,274. But for the unusually severe frosts, which caused a great deal of damage to babul pods and cultivation, the repenue would have been still greater.
}
87. Except in Naushahro, where there was a falling-off of Rs. 1,412, all other divisions exhibit a substantial increase in reveune, to which the exoeptional prices obtained from the sale of coupes, revenue jungles, and lac have principally contributed. Other minor sources which helped to swell the revenue were erosion strips, burnt areas, confiscated coupe material and fisheries. With the North-Western Railway as the largest consumer of the out-put of the yearly exploitable area, and with a comparative fall in the yield of wood fuel from outside sourcer, there was a steady rise in the coupe realisations. As this source of consumption has ceased, we shall have to face a temporary fall in revenue, although it is hoped that it will not be long before the nirmal figures are resumed Already there have been enquiriesfor Sind timber to the value of about a lakh of rupees from the Gun Carriage Facti \(y\) at Jabalpur and for Sind fuel by the officers in Quetta, and thesesources of demand as well as a growing local market should ensure the return of our receipta and surplus to the figures of the year under report within a season or two.
88. Under "A-Conservancy and Works," the expenditure shows anincrease of Rs. 11,902, as large sums were this year spent on the construction of buildings and irrigation works and the purchase of uniforms for forest subordinates. The increase under "B-Establishment" is small, and does not call for any special remark.
89. The following is the analysis of income derived from major and minor produce and of expenditure incurred :-
\begin{tabular}{|c|c|c|c|c|}
\hline & \multirow[t]{5}{*}{\[
\left\{\begin{array}{l}
\text { Wood ... } \\
\text { Minor forest produce } \\
\text { Grazing ... } \\
\text { Miscellaneous... }
\end{array}\right.
\]} & \(\ldots\) & ... Rs: & 2,34, 817 \\
\hline \multirow[t]{4}{*}{Gross revenue} & & \(\ldots\) & & 54,59.4 \\
\hline & & \(\cdots\) & & 50,86 \\
\hline & & . \({ }^{\text {, }}\) & ... " & 16,679 \\
\hline & & Total & .. Rs & 4,06,934 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|c|}{Expenditure.} \\
\hline & & & \\
\hline \multicolumn{2}{|l|}{\multirow[t]{3}{*}{\begin{tabular}{l}
Extraction \\
Live stock, stores, todls and plant Communications and buildings
\end{tabular}}} & ... - .. & s. 1,378 \\
\hline & & ... & 2,009 \\
\hline & & ... & 10,129 \\
\hline \multicolumn{2}{|l|}{Compensation for land and rights} & ... & 50 \\
\hline Surveys -.. & . & ... & 1,180 \\
\hline Working plans ... & ... & ... & 3,850 \\
\hline Sowing and planting & ... & . & 5,475 \\
\hline Fire-protection ... & . & .-. & 290 \\
\hline Miscellaneous ... & ... & . & 7,762 \\
\hline Superior staff & & ... & 40,889 \\
\hline \multicolumn{2}{|l|}{Exchange compensation allowance} & ... & 1,07́ \\
\hline Subordinate staff & ... & ... & 45,507 \\
\hline Office and contingencies & ... & ... & 21,513 \\
\hline \multicolumn{4}{|l|}{- Total expenditure... Re. 1,41,106} \\
\hline \multicolumn{4}{|r|}{t meyenue ... Rs. 2,65,848} \\
\hline \multicolumn{4}{|l|}{90. The subjoined talle gives the financial results of the in accordance with Government Resolution No. 5385 of the 23rd Ju} \\
\hline Year. & Receipts. & Expenditure. & Surplus. \\
\hline & Rs. & Rs. & His. \\
\hline 1895-96 & 4,65,745 & 2,34,807 & 2,30,938 \\
\hline - 1896-97 & 3,12,297 & -1,34,209 & 1,78,088 \\
\hline 1897-98 & 2,67,114 & 1,39,811 & 1,27,303 \\
\hline 1898-99 & 2,90,207 & 1,49,779 & 1,40,428 \\
\hline 1899.00 & 3,09,488 & 1,45,319 & 1,64,169 \\
\hline 1900-01 & 2,65,089 & 1,44,105 & 1,23,984 \\
\hline 1901-02 & 3,34,738 & 1,63,692 & 1,70,846 \\
\hline 1902-03 .. & 2,61,650 & 1,41,138 & 1,20,512 \\
\hline 1903-04 ... & 3,21,145 & 1,28,296 & 1,92,849 \\
\hline 1904-05 ... & 4,06,954 & 1,41,106 & 2,65,818 \\
\hline
\end{tabular}
91. The outstanding revenue, which was Rs. \(1,24,179\) at the commencement of the year, increased to Rs. 1,72,002 when the year terminated. Whis is due to the high prices which the coupes and lac and babul pod farms fetched. The sums are recoverable by instalments, which were not due when the year came to a close, exoept in the case of babul pods, in which case the ' recovery has been hold in abeyance for the reason stated in paragraph 76 supra.
92. An item of advance, Rs. 52, is outstanding in the name of Saleh Shah, a petty contractor, since 1893. In the Civil suit that was filed agairst him some years baok with the sanction of Government. he was held liable for the amount that he then owed to the department, and which was greater than Rs. 52, part having been recovered; the payment of the remainder is being evaded, although efforts are being made to effect its recovery.
93. No defioit in stocks on hand is to be reported.
94. Appendices \(A, B, O\) and \(D\), showing the area of reserved forests, the revenue realised from the different sources, the expenditure inourred, the area under plantations, and that closed to grazing for each Revenue distriot since the year 1901-1902, are attached to the report, as the details embodied in them are usually wanted for the Census reports, and might be useful.

\section*{OHAPTER IV．}

\section*{Adminiatalition．}

95．Mr．T．R．Bell，Deputy Conservator of Forests，proceeded on a＇ month＇s privilege leave from the 25th November 1004，the olarge of the Circle being held by Mr．O．8．MoKenzie，Divisional Forest Officer，Jerruck，in addtion to his own duties．Mr．V．D．P．Rebeiro，Divisional Forest Officer， Naushahro，availed himself of the three montha＇privilege leave granted to him from the 29th November 1901，and was on his return placed in charge of the Forest Contour Survey which had just then been sanctioned by Government．Mr．B．J．Patel was transferred to the Presidency，and Mr．M D．Jagtiani from Central Thana in the Northern Circle to Sind，and placed in charge of the Forest Contour Survey．Mr．Rebeiro took Mr．Patel＇s place as Divisional Forest Officer，Naushahro．

96．The Divisional Forest Officers，Hyderabad and Jerruck，have continued to work well：both have shown energy in the improvement of the irrigation of their forests；especially is this the case in Jerruck．Mr．Master in Sukkur is not sufficiently active in his inspections，and the division seems to be more than he can efficiently manage．The Sukkur division is twice the size of any of the other three，there is much work to be done，especially this year when the railway indent was double what it was last year：the Range Forest officers are also not all efficient；the same might be，perhaps， said of the office；but even with these handicaps，the Divisional Forest Officer＇s work during the jear has not been altogether satisfactory．

97．The Range Forest Officers are all reported to have worked well， though there is a general consensus of opinion that many of them are not up to the standard required；but the pay is inferior，and good men can－ hardly be expected at the price．

98．The office establishments and surveyors have；all worked well as reported by the Divisional Forest Officers；but I have to repeat that，the provpects of the branch being bad，it is becoming increasingly difficult to obtain good men．If by chance a good man does take service，he generally tries to get away to some other department as soon as he has learnt his work． The members of the Circle office have all worked satisffactorily．

99．The conduct of the Forest staff in general may be gathered from the following statement；
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Divioion．} & \multicolumn{2}{|l|}{1903－1904，} & \multicolumn{2}{|l|}{1904－1905．} & \multicolumn{2}{|l|}{1903－1904．} & \multicolumn{2}{|l|}{1904－1808，} & \multicolumn{2}{|l|}{1908－1904．} & \multicolumn{2}{|l|}{1904－1905．} & \multirow[t]{2}{*}{} \\
\hline & 总 &  & \[
\begin{aligned}
& \text { 兑 } \\
& \text { 曾 } \\
& \text { 兑 }
\end{aligned}
\] & 8
8
事
8
8
0 &  &  &  &  & 吕 & \[
\begin{aligned}
& 0_{0}^{0} \\
& \text { 营 } \\
& \text { 巻 } \\
& \text { M }
\end{aligned}
\] & 茝 &  & \\
\hline Bukkur & 8 & 1.5 & 1 & 0.7 & 4 & 29 & & & 33 & 24－1 & 83 & 241 & － 137 \\
\hline Nanahahro 0.0 & 4 & 59 & 8 & 11.8 & 9 & 132 & 8 & 73 & 19 & 278 & 37 & 544 & 68 \\
\hline Hyderabad ．．．． & 4 & \(6 \cdot 9\) & 4 & 68 & 9 & 31 & 8 & 46 & 4 & 6．2 & 3 & 4.6 & 65 \\
\hline 1erguck & 3 & 51 & 2 & 34 & 1 & 17 & 8 & 8．1 & 23 & 39.0 & 10 & 169 & 69 \\
\hline Torab ．．． & 13 & 40 & 15 & \(4 \cdot 6\) & 16 & 49 & 11 & 3.3 & 79 & 24.0 & 83 & 25.0 & 329 \\
\hline
\end{tabular}

100．There is a notable increase in the percentage of dismissals and fines in Naushahro，which is the result of the enforcement of stricter discipline among the subordinate staff．

101．Two Porest guards died of heart disease，one of pneumonia，and three of ordinary fever．One Range Forest Officer，Mr．Kishinchand Isardas， retired on the 7th February 1905，on attaining the age of 55 years．

102．The relations between Pevenue and Forest offioials were fairly eatisfactory，

103．All Divisional Forest offices were inspected，and they were found in a satisfactory condition，except that punctuality in correspondence leaves much to be desired，

\section*{OHAPTER V.}

\section*{General.}
104. The sorting and classification of records is being carried on in all Forest offlees as time permits, and it will probably take a fev' more years before the work is brought ip to date.
105. The quantity and value of the material removed by the Public Works Department from the temporary alienated strips alongside of canals and bunds are given below :-
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Large'and amall timber, 12,124 o. ft.} & Rs, & 1,164 & & 10 \\
\hline \multicolumn{4}{|l|}{Babul, kandi and lai brauches, 4,105 Nos.} & & 794 & 4 & \\
\hline \multirow[t]{2}{*}{Earth; 3,596,563 c. ft .} & ... & \(\cdots\) & & " & 899 & 2 & 2 \\
\hline & \multicolumn{7}{|r|}{Total . ... Rs. 2,857 100} \\
\hline
\end{tabular}
106. Some thieves broke into the Range Forest office at Sehwan; but, except a tin box and a pair of dividers, no Government property was stolen.
'107. 'A fair export trade in charcoal is said to have been established with some Persian Gulf ports. Large quantities were also exported to Quetta, and to Cutch Mandyi and other Kathiawar ports. The import of wood from the Panjab and other places is said to have declined somewhat.
- 10'. The Collector of Sukkur, Mr. Smart, while forwarding the administration report of the Sukkur Division, states that- "the system * * * of plantations mixed'with juari crops has led to great friction between the Forest Department'and persons holding Revenue land on the same canal." Such, howover, was not the caso. The friction, if there was any, was between the Pablic Works Department and the Revenue Department and the Forets Department.' While the Executive Engineer, Shikarpur Canals, was willing to give us surplus' water (i. e., water over and above the legitimate requirements of Revenue cultivators) to raise plantations with the aid of cereals, the Collecitor was forcing his "own vieews upon'that officer with the object of withholding all water from the forest. The matler, I am glad to state, has since been satisfactorily disposed of by the Commissioner, and it is hoped that his decision will henceforward be acted up to by the officers concerned.
109. It was definitely settled that' the fuel contract with the NorthWestern Railway should come to an'end on the 30th Seplember 1905 'It is probable that the demand for fuel for some few years will show a considerable falling-off compared with the past, which will result in an appreciable decrease in the receipts of the department. I am, however,' sanguine that the decrease will not be for long, for local demand has shown a tendency to increase of late years, and the continued destruction of growth in waste lands ensuing on an extended canal system, coupled with the consequent increase in cultivation and therefore of population, and the establishment of more and more mills and factories, give great promise of the continuance of that increase. As for the future, a present population of over 3,000,000 imhabitants for a possible māximum yield of \(17,000,000\) of c ft. of fael from the forests, and very little from ans other source, gives only about \(5 \mathrm{c} . \mathrm{ft}\). per head per annum-an absurdly small allowanee, and probably only one-fifth of what will really be required.

\author{
T R. BELL \\ Deputy Conservator of Forests, \\ Siụd Circle.
}

APPENDIX 1.
1901-1902.
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Partionlara. & Uppor Sind dantiot. & Sukkur
dutriot & Iarkang & Hyderrbed & \(\underset{\text { Karachi }}{\text { ditreote }}\) & Totis \\
\hline Aroen \(\quad . .\left\{\begin{array}{l}\text { Reoservod, equare milee } \\ \text { Proteoted } \\ \text { do. }\end{array}\right.\) & 87-698 & \({ }_{\text {417-164 }}^{-1}\) & \({ }_{\text {86-58 }}\) & \begin{tabular}{|c}
2590 \\
\hline 298
\end{tabular} & 219-78 & \(1,009-556\)
\(0-585\) \\
\hline Chiof produote- & & & & & & \\
\hline  & 8, 8,613 & 87,054 & 8, 1,117 & 81,699 & 12,685 & \(\begin{array}{r}\text { 46,850 } \\ \text { 1,68,725 } \\ \hline\end{array}\) \\
\hline Grating ... & 1,181 & 8,505 & 1,894 & 18,817 & 9,918 &  \\
\hline Babal ... ... & … & 65 & 539 & 13,134
1,130 & 7,828 & 28,151 \\
\hline Other reooipta ... … & 17,099 & 7.869 & 1,9897 & 9,773 & \({ }^{957}\) & 20,468 \\
\hline Tiotal reoupto ... & \% \({ }^{6,2888}\) & 1,08,518 & \({ }^{10,954}\) & 1,03,6492 & 75,760
88,268 & - \({ }^{2,99,0595}\) \\
\hline Arpen of plantation, \%orres & 8,700 & -85,497 & \({ }_{8}^{8,218}\) & 17,957 & cen & ,77,065 \\
\hline Area oloted do. & 4,765 & 45,467 & 8,968 & 20,350 & 13,303 & 83,847 \\
\hline
\end{tabular}

APPENDIX B.
1902-1903.


APPENDIX C.
1903-1904.

T. R. BELL,

Deputy Oonservator of Forests,
Sind Circle.
Karachis 9th October 1905.

\section*{APPENDICES.}

Fory No. 46,-Area of Reserved Furests, 1001-1205. ,

. 604-24

Form No. 46. - Area of Reserved Forests, 1901-1905-continued.


Foņ No. 16-A-Area of Protected Forest, 1J04-1J05.


Form No. 46.B.-Area of Forest Propor, Reserved or mixed Fuel and Fodder Reserves under the management of the Forest Department during the your 1004-1305.


Form No. 46-C.-Area of Fodder Reserves and Pasture Lands under the management of the Revenue Department during the year 1904-1305.


Abstract of Forms Nos, 46, 46A, 46B and 46C for 1904-05.


\section*{FORM-No. 47.}


Fory No. 47.-Statement showing the Progress made in, and the


Erpendilure incurfed on, Forest Soltlemènta during 1904-1905.


Form No. 47.-Statement showing the Progress mado in, and the


Tependilure incurred on, Forest Seltlements during 1001-1005-continued.


Fons No. 48.-Record of Demarcation and Maintenance of Boundaries, 100 1 -1905.

 compartmente, coopen

Fory No. 48.-Record of Demarcation and Maintenance of Boundaries, 1901-1905-continued.


Form No. 44.-Statement of Forest Alieas aurveyed

and under Survey during the Forest gear 1304-1905.


Form No. 50.-Progress made in Working Plans, 1304:1305.


FORM No 51.

Fory No. 51.-Communicationa

and Buildings,during 1001-1005.


\footnotetext{
в 624 -29
}

Form No. 51.-Communications

and Buildings during 1904-1005-continued.


and Buildings during 1004-1005-concluded.


Fosm No. 52.-Prosecutions for breaches of Forest Rules dwring 1901-1905.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Forest Division,} & \multirow{3}{*}{\[
\begin{aligned}
& \text { Cases } \\
& \text { pend- } \\
& 10 \mathrm{~g} \\
& \text { from } \\
& 1903 . \\
& 1904
\end{aligned}
\]} & \multicolumn{5}{|c|}{Nbw Caseb of the Ybar,} & \multirow{3}{*}{Total Cases.} & \multicolumn{6}{|c|}{Digposed of doring the Year} & \multirow{3}{*}{\[
\left\lvert\, \begin{array}{c|}
\text { Cases } \\
\text { pend. } \\
\text { mg at } \\
\text { close } \\
\text { of } \\
\text { year. }
\end{array}\right.
\]} & \multirow{3}{*}{\[
\begin{aligned}
& \text { Ca- } \\
& \left\lvert\, \begin{array}{c}
\text { eses } \\
\text { writb- }
\end{array}\right. \\
& \text { ten } \\
& \text { off. }
\end{aligned}
\]} \\
\hline & & \multirow{2}{*}{Injary to forest by tire.} & \multirow[t]{2}{*}{\begin{tabular}{l}
Unau- \\
thorized \\
felling \\
pration \\
of wood \\
\& Minor \\
Forest \\
Produce.
\end{tabular}} & \multirow[t]{2}{*}{Grazing without permisalon or in tracts in which grazing is prohibited.} & \multirow[t]{2}{*}{} & \multirow{2}{*}{Total
new cases
of the
year.} & & \multicolumn{2}{|l|}{Convintione.} & \multicolumn{2}{|l|}{Acquitlals.} & \multicolumn{2}{|r|}{Tutal.} & & \\
\hline & & & & & & & & Cases. & Persons & Cases. & Persons. & Cases. & Persons & & \\
\hline 1 & 2 & 8 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 18 & 14 & 15. & 16 \\
\hline NORTHERN CIRCLE. & & & & & & & & & & & & & & & \\
\hline North Thána \(\ldots \begin{cases}(\mathrm{A}) & . \\ (\mathrm{B}) & . . \\ (\mathrm{C}) & . .\end{cases}\) & \begin{tabular}{l}
... \\
... \\
\hline
\end{tabular} & \[
\begin{array}{r}
6 \\
78
\end{array}
\] & 27
67
32 & 149
5 & 8
17 & \[
\begin{array}{r}
30 \\
229 \\
110
\end{array}
\] & \[
\begin{array}{r}
33 \\
229 \\
110
\end{array}
\] & \begin{tabular}{l} 
29 \\
229 \\
.. \\
\hline
\end{tabular} & 74


\(\mathbf{7 5 7}\)
\(\ldots\) & \(\ldots\) & \(\ldots{ }^{2}\) & \begin{tabular}{l}
31 \\
239 \\
\hline .0
\end{tabular} & \(\begin{array}{r}76 \\ 357 \\ \hline\end{array}\) & \(\ldots\) & \(\cdots\) \\
\hline Total ... & 3 & 79 & 116 & 154 & 20 & 369 & 372 & 258 & 431 & 2 & 2 & 260 & 433 & 2 & \\
\hline \[
\text { Central Thena ... }\left\{\begin{array}{l}
\left(\begin{array}{l}
(\mathrm{B}) \\
(\mathrm{B}) \\
(\mathrm{C}) \\
\text {.... }
\end{array} . .\right.
\end{array}\right.
\] & \[
\begin{gathered}
-{ }^{*} 20 \\
\\
\hline \\
\cdots 5 \\
\cdots
\end{gathered}
\] & \(\begin{array}{r}4 \\ 41 \\ -\quad 51 \\ \hline 1\end{array}\) & 5
215
36 & 161
\(\cdots\) & .\(^{24}\) & \[
\begin{array}{r}
12 \\
431 \\
47
\end{array}
\] & \[
\begin{array}{r}
32 \\
488 \\
87
\end{array}
\] & \(\begin{array}{r}24 \\ 467 \\ \hline . .\end{array}\) & \(\begin{array}{r}95 \\ 893 \\ \hline \times-\end{array}\) & 7
\(\cdots\) & \({ }^{10}\) & 31
467
.. & 105
893
..- & \(\begin{array}{r}1 \\ 19 \\ \hline\end{array}\) & \(\ldots\) \\
\hline Total ... & - 75 & 86 & 256 & 162 & 26 & 530 & 605 & 491 & 988 & 7 & 10 & 498 & 998 & 20 & \(\cdots\) \\
\hline South Thána \(\quad\)... \(\left\{\begin{array}{l}\text { (A) } \\ \left(\begin{array}{l}\text { ( })\end{array}\right. \\ \text { (C) }\end{array}\right.\)... & \[
\begin{aligned}
& 59 \\
& 31
\end{aligned}
\] & \[
\begin{gathered}
12 \\
1 \\
79
\end{gathered}
\] & 94
108
151 & \[
\begin{array}{r}
1 \\
123 \\
7
\end{array}
\] & 4
18
26 & \[
\begin{array}{r}
111 \\
-\quad 250 \\
268
\end{array}
\] & \[
\begin{aligned}
& 170 \\
& 281 \\
& 263
\end{aligned}
\] & \[
\begin{aligned}
& 122 \\
& 283 \\
& 2 .
\end{aligned}
\] & \begin{tabular}{l}
260 \\
578 \\
\hline .0
\end{tabular} & \(\xrightarrow{30} \begin{aligned} & \text { \% } \\ & \cdots\end{aligned}\) & \begin{tabular}{l} 
[.. \\
\(\cdots 8\) \\
\hline
\end{tabular} & \[
\begin{array}{r}
152 \\
233
\end{array}
\] & \[
\begin{aligned}
& 349 \\
& 578
\end{aligned}
\] & 18
48
.. & \(\cdots\) \\
\hline Total ... & 90 & 92 & 353 & 131 & 48 & 624 & 714 & 355 & 838 & 30 & 89 & 385 & 987 & 66 & \\
\hline  & \[
\begin{aligned}
& \text { +5 } \\
& 28
\end{aligned}
\] & \[
\begin{array}{r}
5 \\
\cdots \\
\hline 26 \\
\hline
\end{array}
\] & 4
30
4 & 6
37
16 & [ \({ }^{2}\) & \[
\begin{aligned}
& 17 \\
& 89 \\
& 46
\end{aligned}
\] & \[
\begin{array}{r}
22 \\
117 \\
46 \\
\hline
\end{array}
\] & 15
117 & 24
217
\(\cdots\) & \(\cdots\) & \(\ldots 4\) & 19
117
\(\cdots\) & 28
208
\(\cdots\) & ¢
\(\cdots\)
\(\cdots\) & \(\cdots\) \\
\hline Total ... & 33 & 81 & 38 & 59 & 24 & 152 & 185 & 132 & 241 & \({ }^{4} 4\) & 4 & 136 & 245 & 8 & \\
\hline \[
\text { Panch Maháls } \ldots \begin{cases}(A) & \ldots \\ (B) & \cdots \\ (O) & \ldots\end{cases}
\] & \(\cdots\) & 7
7
466 & 25
262
171 & \[
\begin{array}{r}
19 \\
120 \\
4
\end{array}
\] & 2
47
8 & \[
\begin{array}{r}
53 \\
430 \\
644
\end{array}
\] & 57
430
644 & 43
413 & \begin{tabular}{c} 
79 \\
\(-\quad 778\) \\
\(\cdots\) \\
\hline
\end{tabular} & .\(^{6}\) & \(\ldots 2\) & 49
413 & 100
778
- & 8
17 & \(\cdots\) \\
\hline Total ... & 4 & 4.74 & 458 & 143 & 52 & 1,127 & 1,131 & 456 & 857 & 6 & 21 & 462 & 878 & 25 & .. \\
\hline \[
\text { Total } \ldots \begin{cases}(\mathrm{A}) & \cdots \\ (\mathrm{B}) & \cdots \\ (\mathrm{C}) & \cdots\end{cases}
\] & \[
\begin{gathered}
91 \\
114 \\
.
\end{gathered}
\] & \[
\begin{array}{r}
28 \\
39 \\
695
\end{array}
\] & \[
\begin{aligned}
& 155 \\
& 672 \\
& 394
\end{aligned}
\] & \[
\begin{array}{r}
27 \\
590 \\
32
\end{array}
\] & \(\begin{array}{r}13 \\ .128 \\ \hline 29\end{array}\) & \[
\begin{array}{r}
223 \\
1,429 \\
1,150
\end{array}
\] & \[
\begin{array}{r}
314 \\
1,543 \\
1,150
\end{array}
\] & \[
\begin{array}{r}
233 \\
1, \pm 59 \\
. .
\end{array}
\] & \begin{tabular}{l} 
532 \\
2.823 \\
\(\cdots\) \\
\hline
\end{tabular} & 49 & . 126 & \[
\begin{gathered}
282 \\
1,459 \\
\ldots
\end{gathered}
\] & \[
\begin{aligned}
& 658 \\
& 2,823 \\
& \ldots .
\end{aligned}
\] & \[
\begin{aligned}
& \mathbf{3 2} \\
& 84
\end{aligned}
\] & \(\cdots\) \\
\hline Total, Northern Curcle ... & 205 & 762 & 1,221 & 649 & 170 & 2,802 & 3,007 & 1,692 & 3,355 & 49 & 126 & 1,741 & 3,481 & 116 & \(\cdots\) \\
\hline CENTRAL CIRCLE. & & & & & & & & & & & & & - & & \\
\hline East Khándesh \(\begin{cases}\text { (A) } & \cdots \\ \text { (B) } & \cdots \\ \text { (C) } & \cdots\end{cases}\) & \begin{tabular}{c}
11 \\
\(\cdots\) \\
\hline..
\end{tabular} & 1
8
40 & \[
\begin{array}{r}
7 \\
185 \\
52
\end{array}
\] & 50
632
10 & 11
227
13 & \[
\begin{array}{r}
69 \\
1,047 \\
115
\end{array}
\] & \[
\begin{array}{r}
80 \\
1,047 \\
115
\end{array}
\] & \[
\begin{array}{r}
60 \\
1,047 \\
. .
\end{array}
\] & 220
3,006
\(\ldots\) & 10 & 28 & \[
\begin{array}{r}
70 \\
1,047
\end{array}
\] & \begin{tabular}{c}
248 \\
8,006 \\
\hline\(\cdot\)
\end{tabular} & П0
\(\cdots\)
\(\because\) & ... \\
\hline Total ... & 11 & 44 & 244 & 692 & 251 & 1,231 & 1,242 & 1,107 & 3,226 & 10 & 28 & 1,117 & 3,254 & 10 & \(\ldots\) \\
\hline \[
\text { West Khándesh... } \begin{aligned}
& \left(\begin{array}{l}
(A) \\
(B) \\
(C)
\end{array}\right) \cdots
\end{aligned}
\] & \[
\begin{array}{|c}
\hline-\quad 23 \\
\cdots \\
\cdots
\end{array}
\] & \[
\begin{array}{r}
30 \\
21 \\
101
\end{array}
\] & \[
\begin{aligned}
& 105 \\
& 188 \\
& 303
\end{aligned}
\] & \[
\begin{array}{r}
99 \\
426 \\
29
\end{array}
\] & 20
71
17 & \[
\begin{aligned}
& 254 \\
& 706 \\
& 450
\end{aligned}
\] & \[
\begin{aligned}
& 277 \\
& 706 \\
& 450
\end{aligned}
\] & \[
\begin{aligned}
& 207 \\
& 706
\end{aligned}
\] & \[
\begin{gathered}
674 \\
1,889 \\
\ldots . .
\end{gathered}
\] & 24
\(\cdots\)
\(\cdots\) & \(\ldots 2\) & \[
\begin{aligned}
& 231 \\
& 700
\end{aligned}
\] & \[
\begin{gathered}
786 \\
1,889 \\
\ldots
\end{gathered}
\] & 40
\(\cdots\)
\(\cdots\) & \(\ldots\) \\
\hline Total ... & 23 & 152 & 596 & 554 & 108 & 1,410 & 1,438 & 913 & 2,563 & 24 & 62 & 937 & 2,625 & 40 & . \\
\hline \[
\text { Káarl } \quad \ldots \quad \ldots\left\{\begin{array}{l}
\text { (A) } \\
\text { (B) } \\
\text { (B) } \\
\text { (C) }
\end{array} \ldots\right.
\] & \begin{tabular}{c}
46 \\
\(\ldots\) \\
\hline.. \\
\hline
\end{tabular} & \[
\begin{array}{r}
8 \\
10 \\
101
\end{array}
\] & \[
\begin{array}{r}
41 \\
878 \\
285
\end{array}
\] & 40
3 & 14
27
9 & \[
\begin{aligned}
& 108 \\
& 416 \\
& 895
\end{aligned}
\] & \[
\begin{aligned}
& 149 \\
& 418 \\
& 895
\end{aligned}
\] & \[
\begin{aligned}
& 107 \\
& 116
\end{aligned}
\] & 272
971 & 18
\(\cdots\)
\(\cdots\) & \(\cdots{ }^{40} \times{ }^{40}\) & \[
\begin{aligned}
& 123 \\
& 410
\end{aligned}
\] & 318
971
. & 20
\(\cdots\) & \(\cdots\) \\
\hline - Total ... & 46 & 119 & 702 & 43 & 50 & 914 & 960 & 523 & 1,243 & 16 & 46 & 589 & 1,2,9 & 26 & ... \\
\hline Ahmednagar \(\ldots \begin{cases}(A) & \ldots \\ (B) & \cdots \\ (C) & \ldots\end{cases}\) & .... \({ }^{5}\) & \[
\begin{array}{r}
5 \\
23
\end{array}
\] & \[
\begin{array}{r}
8 \\
268 \\
95
\end{array}
\] & \[
\begin{array}{r}
141 \\
1,220 \\
\mathbf{3}
\end{array}
\] & \[
\cdots_{84}
\] & \[
\begin{array}{r}
149 \\
1,534 \\
126
\end{array}
\] & \[
\begin{array}{r}
154 \\
1,534 \\
123
\end{array}
\] & \[
\begin{array}{|c|c}
120 \\
1,584 \\
\cdots
\end{array}
\] & \[
\begin{aligned}
& 234 \\
& 2,813 \\
& \ldots
\end{aligned}
\] & .-8 & \(\cdots{ }^{20} \ldots\) & \[
\begin{array}{r}
1: 29 \\
1,534
\end{array}
\] & 304
420
\(\cdots\) & \begin{tabular}{l}
25 \\
\hline.. \\
\hline
\end{tabular} & \(\ldots\) \\
\hline Total ... & 5 & 33 & 369 & 1,873 & 34 & 1,809 & 1,814 & 1,654 & 3,097 & 0 & 20 & 1,063 & 724 & 25 & ... \\
\hline
\end{tabular}
(A) Means cases taken into Court.
(B) Representa cases disposed of under section 67 of Indan Forest Act, \(18 ; 8\).
(C) Means nndetected cases.
"Central Thana,一Out of 59 cases ehown as pending ngainst " \(B\) " in last year's form, four cascs are traisforred to " A" proscoution I
\(\dagger\) Surat, -Two cases tarned out on enquiry not to be offences and hence were atrack off.

Form No. 52.-Prosecutions for breaches of Forest Rules during 1901-1905-continued.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Forest Division.} & \multirow{3}{*}{\[
\begin{array}{|l}
\text { Oases } \\
\text { pend- } \\
\text { ng } \\
\text { from } \\
1903- \\
1904 .
\end{array}
\]} & \multicolumn{5}{|c|}{Nuw Cages of tif tear.} & \multirow{3}{*}{Total Cases.} & \multicolumn{6}{|c|}{Dibpobid of dueing tar year.} & \multirow{3}{*}{\[
\left\lvert\, \begin{gathered}
\text { Casee } \\
\text { pend- } \\
\text { ing at } \\
\text { close } \\
\text { of } \\
\text { year. }
\end{gathered}\right.
\]} & \multirow{3}{*}{Cases written off.} \\
\hline & & & Unau* & Grazing & & & & \multicolumn{2}{|l|}{Convictions,} & \multicolumn{2}{|l|}{Aequitals.} & \multicolumn{2}{|r|}{Total.} & & \\
\hline & & &  & grazing 18 prohibited. & & y ear. & & Cases & Persons. & Cabes & Persons & Cases & Persons. & & \\
\hline . 1 & 2 & 3 & 4 & 5 & 6 - & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\
\hline CENTRAL CIRCLEoontinned. & & & & & & & & & & & & & & & \\
\hline Poons \(\quad . . . \quad \ldots\left\{\begin{array}{lll}(A) & . . . \\ (8) & \cdots \\ (C) & . . .\end{array}\right.\) & .\(^{4}\) & \(\begin{array}{r}2 \\ 17 \\ 87 \\ \hline\end{array}\) & [ \(\begin{array}{r}31 \\ 662 \\ \\ 212 \\ \hline\end{array}\) & \[
\begin{array}{r}
40 \\
1,819 \\
69
\end{array}
\] & \[
\begin{gathered}
12 \\
60 \\
7
\end{gathered}
\] & \[
\begin{array}{r}
85 \\
2,558 \\
\mathbf{3 7 5}
\end{array}
\] & \[
\begin{array}{r}
89 \\
2,658 \\
375
\end{array}
\] & \[
\begin{array}{r}
75 \\
2,558
\end{array}
\] & \[
\begin{array}{r}
178 \\
4,987
\end{array}
\] & ¢
\(\cdots\)
\(\cdots\) & . 81 & 84
2,558
\(\cdots\) & 209
4,987
\(\cdots\) & \(\ldots\) & \(\ldots\) \\
\hline Total ... & 4 & 106 & 905 & 1,928 & 79 & 8,018 & 3,022 & 2,633 & 5,165 & 9 & 31 & 2,642 & 6,196 & 5 & \\
\hline  & ...7 & \[
\begin{array}{r}
1 \\
41 \\
58
\end{array}
\] & \[
\begin{array}{r}
6 \\
690 \\
85
\end{array}
\] & \[
\begin{array}{r}
29 \\
1,809 \\
2
\end{array}
\] & \[
\begin{array}{r}
3 \\
129 \\
8
\end{array}
\] & \[
\begin{array}{r}
39 \\
2,669 \\
153
\end{array}
\] & \[
\begin{array}{r}
46 \\
2,669 \\
153
\end{array}
\] & \[
\begin{array}{r}
31 \\
2,669
\end{array}
\] & \[
\begin{array}{r}
68 \\
5,319
\end{array}
\] & \(\ldots\) & \(\ldots 9\) & \[
\begin{array}{r}
37 \\
2,669 \\
. . \mathrm{c}
\end{array}
\] & \[
\begin{array}{r}
77 \\
5,319 \\
\ldots . .
\end{array}
\] &  & \(\cdots\) \\
\hline Total ... & 7 & 100 & 781 & 1,840 & 140 & 2,861 & 2,868 & 2,700 & 5,387 & 6 & 9 & 2,706 & 5,326 & 9 & ... \\
\hline Eholápur \(\quad \cdots \begin{cases}\left(\begin{array}{ll}(A) & \ldots \\ (B) & \cdots \\ (C) & \ldots\end{array}\right.\end{cases}\) & \(\ldots{ }^{\text {a }}\) & \(\cdots\) & 3
24
37 & 12
485
1 & \(\ldots 2\) & 15
511
45 & 18
511
45 & 15
511
.. & \[
\begin{array}{r}
44 \\
1,352
\end{array}
\] & ...
..- & \(\ldots 4\) & 17
511
... & \[
\begin{array}{r}
48 \\
1,352 \\
\ldots
\end{array}
\] & 1 & \(\ldots\) \\
\hline Total ... & 3 & 7 & \(6 \pm\) & 498 & 2 & 571 & 574 & 526 & 1,396 & 2 & 4 & 528 & 1,400 & 1 & - \\
\hline Total \(\ldots \begin{cases}(A) & \ldots \\ (B) & \cdots \\ (C) & \ldots\end{cases}\) & 99 & \[
\begin{array}{r}
42 \\
97 \\
422
\end{array}
\] & \[
\begin{array}{r}
201 \\
2,391 \\
1,069
\end{array}
\] & \[
\begin{array}{r}
411 \\
6,403 \\
114
\end{array}
\] & \[
\begin{array}{r}
60 \\
650 \\
54
\end{array}
\] & \[
\begin{array}{r}
714 \\
9,441 \\
1,659 \\
\hline
\end{array}
\] & \[
\begin{array}{r}
813 \\
\mathbf{9 , 4 4 1} \\
1,559 \\
\hline
\end{array}
\] & 615
9,441
\(\ldots\) & \[
\begin{gathered}
1,740 \\
20,337 \\
\cdots \\
\hline
\end{gathered}
\] & 76
... & 200 & \begin{tabular}{c}
691 \\
9,441 \\
\hline..
\end{tabular} & \[
\begin{gathered}
1,940 \\
\times 20,337 \\
\cdots \\
\hline
\end{gathered}
\] & \begin{tabular}{l}
122 \\
\(\cdots\) \\
\(\square\). \\
\\
\hline
\end{tabular} & \(\cdots\) \\
\hline Total, Central Circle ... & 99 & 561 & 3,661 & 6,928 & 664 & 11,814 & 11,913 & 10,056 & 22,077 & 76 & 200 & 10,132 & 22,277 & 122 & --* \\
\hline SOUTHERN OIRCLE. & & & & & & & & & & & & & & - & \\
\hline \[
\begin{gathered}
\text { Northem Divieion } \\
\text { of Kanara }
\end{gathered} \quad \cdots\left\{\begin{array}{l}
(\mathrm{A}) \\
\text { (B) } \\
\text { (C) }
\end{array}\right)
\] & 1
\(\cdots\)
\(\cdots\) & \[
\begin{array}{r}
1 \\
4 \\
185
\end{array}
\] & \[
\begin{array}{r}
7 \\
32 \\
17
\end{array}
\] & \[
\cdots{ }_{55}
\] & 25 & \[
\begin{array}{r}
10 \\
116 \\
205
\end{array}
\] & \(\begin{array}{r}11 \\ 116 \\ 205 \\ \hline\end{array}\) & 3
116
\(\cdots\) & \[
\begin{array}{r}
10 \\
297
\end{array}
\] & \(\ldots\) & \(\cdots{ }^{2}\) & \begin{tabular}{r|r}
5 \\
116 \\
.\(\cdot\)
\end{tabular} & \begin{tabular}{c}
12 \\
297 \\
\(\cdots\) \\
\hline
\end{tabular} & 6 & \(\ldots\) \\
\hline Total & 1 & 190 & 56 & 58 & 27 & 931 & 332 & 119 & 307 & 2 & 8 & \(12]\) & 309 & 6 & \\
\hline \[
\begin{gathered}
\text { Sonthern Division } \\
\text { of Kanara } \\
\cdots
\end{gathered}\left\{\begin{array}{l}
\text { (A) } \\
\text { (B) } \\
\text { (C) }
\end{array} \cdots\right.
\] & \begin{tabular}{l}
36 \\
\(\cdots\) \\
\hline
\end{tabular} & \[
\begin{array}{r}
7 \\
1 \\
204
\end{array}
\] & \[
\begin{array}{r}
34 \\
390 \\
53 \\
\hline
\end{array}
\] & \(\square_{14}^{5}\) & \(\begin{array}{r}8 \\ 159 \\ . . \\ \hline\end{array}\) & \[
\begin{array}{r}
\mathbf{5 4} \\
\mathbf{5 6 4} \\
\mathbf{2 5 7} \\
\hline
\end{array}
\] & \(\begin{array}{r}90 \\ 564 \\ 257 \\ \hline\end{array}\) & \begin{tabular}{c}
\(-\quad 36\) \\
564 \\
. \\
\hline
\end{tabular} & \[
\begin{array}{r}
48 \\
769 \\
\hline .7
\end{array}
\] & \begin{tabular}{l}
88 \\
.0. \\
\hline 8
\end{tabular} & \(\cdots{ }^{18} \times{ }^{18}\) & 44
564 & 66
763 & 45
\(\cdots\) & \(\ldots\) \\
\hline Total & 36 & 212 & 477 & 19 & 167 & 875 & 911 & 600 & 811 & 8 & 18 & 608 & 829 & 45 & 1 \\
\hline \[
\begin{gathered}
\text { Western Divisıon } \\
\text { of Kanara }
\end{gathered} \cdots \begin{cases}(\mathrm{A}) & \ldots \\
(\mathrm{B}) & \cdots \\
(\mathrm{C}) & \ldots\end{cases}
\] & \({ }_{\text {13 }}^{4}\) & \[
\begin{array}{r}
2 \\
7 \\
132
\end{array}
\] & \[
\begin{array}{r}
34 \\
593 \\
123
\end{array}
\] & 1
30 & \[
\begin{array}{r}
3 \\
19 \\
1
\end{array}
\] & \[
\begin{array}{r}
20 \\
649 \\
206
\end{array}
\] & \[
\begin{array}{r}
33 \\
653 \\
\mathbf{2 5 6}
\end{array}
\] & \[
\begin{array}{r}
25 \\
463 \\
\ldots
\end{array}
\] & \[
\begin{array}{r}
93 \\
1,317 \\
\ldots \\
\hline
\end{array}
\] & 5
190 & \[
\begin{array}{r}
42 \\
722
\end{array}
\] & 30
653
\(\cdots\) & \[
\begin{gathered}
\mathbf{1 3 5} \\
\mathbf{2 , 0 3 9} \\
\cdots
\end{gathered}
\] & \({ }^{\text {.. }}\) & \(\cdots\) \\
\hline Total ... & 17 & 141 & 730 & 31 & 23 & 925 & 942 & 488 & 1,410 & 195 & 764 & 683 & 2,174 & 3 & ... \\
\hline \[
\text { Belgaum Division } \begin{cases}\text { (A) } & \ldots \\ \text { (B) } & \ldots \\ \text { (C) } & \ldots\end{cases}
\] & 8
9 & 2
191 & \[
\begin{array}{r}
9 \\
138 \\
77
\end{array}
\] & 5
219
1 & 14 & \[
\begin{array}{r}
16 \\
371 \\
269 \\
\hline
\end{array}
\] & \[
\begin{array}{r}
\mathbf{2 4} \\
\mathbf{3 8 0} \\
\mathbf{2 6 9}
\end{array}
\] & 9
160 & \[
\begin{aligned}
& 15 \\
& 393 \\
& \ldots \\
& \hline
\end{aligned}
\] & \[
\begin{array}{r}
11 \\
203
\end{array}
\] & \[
\begin{array}{r}
25 \\
410
\end{array}
\] & \(\begin{array}{r}20 \\ 368 \\ \hline\end{array}\) & \begin{tabular}{l}
80 \\
\hline 8 \\
\hline
\end{tabular} & 4 4 & \(\cdots\) \\
\hline Total ... & 17 & 193 & 224 & 225 & 14 & 656 & 678 & 169 & 408 & 213 & 435 & 352 & 843 & 28 & \(\cdots\) \\
\hline \[
\text { Dhárwár Dlvısion } \begin{cases}(\mathrm{A}) & \ldots . \\ (\mathrm{B}) & \ldots \\ (\mathrm{C}) & \ldots .\end{cases}
\] & \(\ldots\) & \[
\begin{array}{r}
1 \\
113
\end{array}
\] & 5
53
4 & \(\begin{array}{r}7 \\ 55 \\ \hline\end{array}\) & \(\frac{1}{3}\) & \[
\begin{array}{r}
13 \\
112 \\
120
\end{array}
\] & \[
\begin{array}{r}
18 \\
112 \\
120 \\
\hline
\end{array}
\] & 11
82
. & \[
\begin{array}{r}
43 \\
337
\end{array}
\] & 4
30 & 34
94 & 15
112 & 77
.431
.. & \({ }^{. . .}\) & \(\cdots\) \\
\hline Total ... & 5 & 114 & 62 & 65 & 4 & 245 & 250 & 93 & 380 & 34 & 123 & 127 & 508 & 3 & \(\cdots\) \\
\hline \[
\text { BiJipar Division } \begin{cases}(\mathrm{A}) & . . \\ (\mathrm{B}) & \ldots \\ (\mathrm{C}) & \ldots .\end{cases}
\] & 14 & \(\cdots{ }^{-\cdots}\) & \[
\begin{aligned}
& 16 \\
& 17 \\
& 29
\end{aligned}
\] & 62
110
17 & 11
11
1 & \[
\begin{array}{r}
80 \\
133 \\
89
\end{array}
\] & \(\begin{array}{r}94 \\ 139 \\ 89 \\ \hline\end{array}\) & \[
\begin{array}{r}
66 \\
126
\end{array}
\] & \[
\begin{aligned}
& 274 \\
& 390 \\
& \cdots \\
& \hline
\end{aligned}
\] & \begin{tabular}{l}
12 \\
... \\
\hline.
\end{tabular} & \[
\begin{aligned}
& 84 \\
& . \ddot{ }
\end{aligned}
\] & \[
\begin{array}{r}
78 \\
-126
\end{array}
\] & \[
\begin{aligned}
& \mathbf{3 5 8} \\
& \mathbf{3 9 0}
\end{aligned}
\] & \begin{tabular}{l}
16 \\
13 \\
\hline
\end{tabular} & \(\cdots\) \\
\hline Total ... & 15 & 42 & 62 & 189 & 14 & 307 & 32 n & 192 & 664 & 12 & 84 & 204 & 748 & 29 & \(\cdots\) \\
\hline
\end{tabular}
(A) Means cases taken into Court.
(B) Represents cases dusposed of onder section 67 of the Indian Forest Act, 1878.
(C) Means undetecred cases.
- Four of the cases pending last year were sabsequently compounded.

Form No. 52.-Proseczitions for breaches of Forest Rules during 1304-1305-concluded.

(A) Meand csses taken into Court
(B) Represents cases dısposed of undor aection 67 of the Indsan Forest Act, 1878.
(C) Means undetected cases.
- Throe of the B cases shown an pending last year were subsequently taken into court as the componeation was not paid by the offenders. Hence the difference in columy 2,

Form No 53.-Area of Forest Tracts protected from fire during 1204-1905.


Form No. 53-Area of Forest Tracts protected from fire during 1904-1000゙-continued,


Fonis No. 53.-Area of Forest Tracts protocted from fire during 1004-1005—continued.


Fobm No. 53.-Area of Forest Tracts proteeted from fire during 1904-1905-conoluded.


Foru No. 54.-Area closed and open to Grazing during 1904-1905.


\footnotetext{
B 624--32
}


\footnotetext{

15 to 277 are blank
eatruated at 60,000 .
\(\ddagger\) Out of this number 172 were charged at annas 8 emeh.
}
in the State Foresta duing 1004.1305.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{13}{|c|}{Grazime Frin-Numaze of Armalas.} & \multirow[b]{3}{*}{Grand Total of vaiue at tull raten.} \\
\hline \multicolumn{6}{|c|}{By right under Sottlement} & \multicolumn{6}{|c|}{During pleasure of Government, or otherwise than under Settlement.} & \multirow[b]{2}{*}{Total valua of
Feeant full rates.} & \\
\hline Bufatoes & \[
\begin{gathered}
\text { Cown } \\
\text { and } \\
\text { Ballooks }
\end{gathered}
\] & \[
\begin{aligned}
& \text { Coats } \\
& \text { suld } \\
& \text { sheop. }
\end{aligned}
\] & Camela. &  & Valite of Fees at full ratea. & Buftaloes & \[
\begin{gathered}
\text { Cown } \\
\text { Bund } \\
\text { Bullocks. }
\end{gathered}
\] & \[
\begin{gathered}
\text { Goats } \\
\text { and } \\
\text { 8heep. }
\end{gathered}
\] & Camela. & Other Anuals. & Valun of Fees Bl full rates & & \\
\hline 15 & 16 & 17 & 19 & 19 & 20. & 81 & 23 & 29 & 24 & 25 & \(26^{\circ}\) & & 28 \\
\hline & & - & & & R8. An \(\mathbf{p}\) & & & & & & Re. a. p.- & Rs. a. p. & R. . \({ }^{-}{ }^{-p}\) \\
\hline \(\cdots\) & ** & \(\cdots\) & \(\cdots\) & . 0 & -00*: & 12,595 & 81,189 & ** & 9 & ** & 66,455 \(10 \quad 0\) & 66,455 10 0 & 66,835 10 0 \\
\hline ... & \(\cdots\) & ** & \(\ldots\) & \(\cdots\) & \(\cdots\) & 18,061 & 45,445 & \(\cdots\) & ** & ... & 44,729 60 & 44,729. 60 & 46,653 120 \\
\hline ** & -• & ** & \(\cdots\) & \(\cdots\) & **** & 10,385 & 91,099 & *** & \(\ldots\) & ** & 8,04,152 00 & 3,04,152 00 & 3,04,552 220 \\
\hline *** & \(\cdots\) & ... & \(\cdots\) & \(\cdots\) & [.4.0. & ... & 19,972 & ** & - 0 & \(\cdots\) & 19,972 0 & 19,972 00 & 26,413 0 \\
\hline \(\cdots\) & -.. & -** & ... & \(\cdots\) & ... & 8,777 & 83,930 & - \(\times 4\) & ... & 9,265 & 13,741 \(14 \quad 0\) & 13,741 140 & 14,464 510 \\
\hline - & *** & . 0 & \(\cdots\) & \(\cdots\) & ...... & 44,718 & 271,585 & . & \(\cdots\) & 9,265 & 4,49,050 1410 & 4,49,050 14, 0 & 4,58,918 130 \\
\hline - & & & & & & NuL. & & , & & - & & & \\
\hline ** & \(\cdots\) & ** & - 0 & ... & ... & 44,718 & 271,585 & . \(*\) & ** & 9,265 & 4,49,050 14.0 & 4,49,050 140 & 4,58,918 130 \\
\hline & & & & & & & & & & & & & \\
\hline \(\cdots\) & - 0 & \(\cdots\) & * & \(\cdots\) & -0. & 1,557 & 7,079 & -." & ** & \(\cdots\) & 8,636 00 & 8,686 00 & 2,22,675 00 \\
\hline ** & \(\cdots\) & ** & - & \(\cdots\) & *** & 691* & 11,243 & \(\ldots\) & \(\cdots\) & 75 & 12,012 0 & 12,0120 0 & 1,31,976 0 \\
\hline ** & -... & \(\cdots\) & . . & \(\ldots\) & -....0 & 1,050 & 4,500 & ** & ** & 300 & 5,850 00 & 5,850 00 & 2,05,312 00 \\
\hline " & -. & \(\cdots\) & \(\because\) & \(\cdots\) & ....0. & \(\cdots\) & . \(*\) & \(\cdots\) & ... & & - .a.... & .•曲 & 65,411 0 \\
\hline ** & - & \(\cdots\) & \(\cdots\) & & -• & . \(*\) & :** & \(\cdots\) & & ..* & -." & -.. - - & 44,848 00 \\
\hline - & *** & -..4 & -•* & ** & .." & \(\cdots\) & -* & \(\cdots \cdot\) & \(\cdots\) & -• & -** & .....* & 62,664 0 \\
\hline \(\cdots\) & - \({ }^{\prime}\) & .-8 & \(\cdots\) & ... & ...... & \(\cdots\) & \(\cdots\) & ** & \(\cdots\) & - 0 & ... & ...... & 18400 \\
\hline \(\cdots\) & ... & . & ... & ... & -* & 3,301 & 22,822 & . & \(\cdots\) & 375 & 26,498 0 & 26,498 0 & 7,23,070 00 \\
\hline ** & ... & ... & * & \(\cdots\) & ***.. & ... & - & ... & ... & ... & .-...- & & 59,806 0 \\
\hline *.• & ... & \(\cdots\) & ... & \(\cdots\) & **** & *.. & - & -. & - 0 & \(\cdots\) & -. \({ }^{\circ}\) & -.. \({ }^{\text {- }}\) & 1,14,484 00 \\
\hline -•• & ** & -* & ... & - & "0. \({ }^{\circ}\) & & 0 & ** & -.* & \(\cdots\) & .." & ***** & 1,25,821 00 \\
\hline -** & ... & ... & ** & \(\cdots\) & ...... & * & \(\cdots\) & * & \(\cdots\) & \(\cdots\) & *.'** & **..'4 & 74,531 00 \\
\hline ... & ... & \(\cdots\) & \(\cdots\) & \(\cdots\) & *...]: & - & - & \(\cdots\) & ** & - & ...* & \(\cdots\) & 42,40000 \\
\hline \({ }^{*}\) & - & . \({ }^{\prime}\) & -•* & \(\cdots\) & .. \({ }^{\text {... }}\) & 25 & & ... & . 0 & ..* & 25000 & 25000 & 70,812 00 \\
\hline ** & \(\cdots\) & -• & ... & . 0 & ...... & 25 & 0 & .." & ... & \(\cdots\) & 25000 & 25000 & 4,87,804 00 \\
\hline 1,218 & 5,380 & ** & . & 79 & 8,935 00 & 61 & 1,498 & 105 & .0* & 889 & 1,024 0 & 9,959 00 & 18,587 00 \\
\hline 967 & 3,499 & ... & ... & 24 & 3,621 00 & 190 & 634 & 869 & 11 & 460 & 1,130 00 & 4,82100 & 12,024 00 \\
\hline 65 & 843 & . & \(\cdots\) & -* & 57200 & 122 & 801 & 224 & 666 & 177 & 3,639 00 & 4,211 00 & 25,507 0 \\
\hline 685 & 814 & 91 & 9 & 10 & 2,093 00 & 334 & 834 & 2,412 & 862 & 1,429 & 3,507 00 & 5,500 0-0 & 18,024 0 \\
\hline 2,935 & 10,529 & 91 & 9 & 113 & 15,291 00 & 707 & 3,267 & 3,610 & 1,539 & 2,955 & 9,300 000 & 24,591 0 & 74,142 00 \\
\hline 2,935 & 10,529 & 91 & 9 & 113 & 15,291 o 0 & 346, & 650 & 3,6:0 & 1,539 & 12,595 & 4,85,098 14.0 & 500,389 \(14 \quad 0\) & 17,43,984 130 \\
\hline
\end{tabular}

Form No. s6.-Slatement showing Area of Plantations in tho Bombay Presidency, including Sind, for the year 1901-1305.


\section*{FORM No. 57.}

Fosy No. 57.-Outturn (in culic feet, solid) of Timbor and Fuels,

during the year 1001-1305, and Agency of Exploilation.


Form No, 57,-Owtlurn (in enbiefoet, solid) of Timber and Fuel

during the year 1001-1905, and Agency of Exploitation-continued.


Fony No. 57.-Ontturn (in cubio feet, solid) of Timber and Fuel

during the year 1904-1905, and Agency of Exploitation-continued.


Fony No. 57,-Outlurn (in culic foct, solid) of Timber and Fuel,

daring the year 1001-1305, and Agency of Exploitation-concluded.


Porm No. 58.-Outhurn of Minor Folest Produce in the Bombay Piesidency for the year 1004-1J05.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Description of Produce.} & \multicolumn{10}{|c|}{Produor mbmovid or dtilized.} \\
\hline & \multicolumn{2}{|l|}{By Government Agency.} & \multicolumn{2}{|r|}{By Purchasera,} & \multicolumn{2}{|l|}{By free-grante.} & \multicolumn{2}{|l|}{By right-holders:} & \multicolumn{2}{|r|}{Total.} \\
\hline & Quantity. & Value & Qusntity & Value, & Quautity & Value. & Quantity & Vplue. & Qauntity, & Value. \\
\hline 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 \\
\hline NORTHERN CIRCLE. I.-Reserved Forests. & & Rs, a p & \multicolumn{2}{|l|}{Re. a. p.} & & Rs. & & Rs. & & Rs. at p. \\
\hline Salweod & & & 169 & \(4 \dot{2} 20\) & & & & & & \\
\hline Mandwa wood \(\quad\).... & \(\ldots\) & ... & 253 & \(\begin{array}{llll}42 & 12 & 6\end{array}\) & .." & \(\ldots\) & \(\ldots\) & \(\square\) & ...... & ........ \\
\hline Chunam Kaukar & ...... & ... & 2 & 17100 & \(\cdots\) & \(\cdots\) & -. & \(\cdots\) & ...... & .....". \\
\hline Kankar & \multirow[t]{2}{*}{} & ... & 11 & - 580 & ... & \(\ldots\) & \(\cdots\) & ..' & ..... & ....... \\
\hline Palm leaves \(\quad\)-. & & -* & Contract. & 1,474 00 & '*' & ... & . & - & . \(\cdot\). & ....... \\
\hline Chilari & \multirow[t]{2}{*}{...-} & ... & " & 28000 & \(\cdots\) & ... & ... & .'• & ... & ...... \\
\hline A \({ }^{\text {pta, tembural }}\)
Hirdarnats & & ... & " & 3,845 \(14 \begin{array}{r}5 \\ \hline 611\end{array}\) & -.. & ... & ... & ... & ... & . \(\cdot\). \\
\hline  & ...... & \(\cdots\) & "948 & \begin{tabular}{l}
611 \\
298 \\
\hline 1110
\end{tabular} & .. & ... & \(\cdots\) & \(\cdots\) & ...... & ..... \\
\hline Do. head-loads \(\quad\)... & \multirow[t]{2}{*}{......} & ..." & 1,983 & 298
90 & ... & . \(\ldots\) & \(\ldots\) & .." & ...... & -. \\
\hline Thorns & & \(\ldots\) & 88 & 2380 & \(\ldots\) & \(\ldots\) & \(\ldots\) & ... & .... .. & ..... \\
\hline Mowra flowers and seeds & \multirow[t]{2}{*}{} & \(\cdots\) & ... & \begin{tabular}{llll}
1 & 4 & 0 \\
\\
\hline
\end{tabular} & \(\cdots\) & \(\cdots\) & -.. & 7096 & *-... & ...... \\
\hline \multirow[t]{3}{*}{Total, Reserved Forest II -Protected Forests III-Leased Forests of Dangs (Resarved and Prolected Forests).} & & - & ... & 80836 & & ... & ... & 7,096 & ...... & ...... \\
\hline & ...... & - & ... & 7,505 63 & ... & - & \(\bullet\) & 7,096 & .....0 & .**... \\
\hline & & & \(N \mathrm{~N} \mathrm{l}_{\text {, }}\) & & Nil. & - & \multirow[b]{3}{*}{\(\cdots\)} & \multirow[b]{3}{*}{\(\cdots\)} & & \\
\hline Catechu & \multirow[b]{2}{*}{. ....} & -•• & "• & 67500 & \(\cdots\) & \(\cdots\) & & & ...... & \\
\hline \(\begin{array}{ll}\text { Mowra flowers and seeds } & \text {... } \\ \text { Miscella neous } & \text {... }\end{array}\) & & \(\ldots\) & \(\cdots\) & \(\begin{array}{rrrr}131 & 13 & 3 \\ 1,021 & 1.4 & 4\end{array}\) & ... & - & & & ...... & ....... \\
\hline & & & & & & & & & & \\
\hline Total " Leased Forests" & -••* & ... & - & 1,828 987 & \(\cdots\) & ... & ... & .. & ... & \(\cdots\) \\
\hline Total, Northern Circle ... & , " & -." & . \({ }^{\prime}\) & 9,333 1510 & * & -• & " & 7,096 & \(\cdots \cdot\) & ...0.0 \\
\hline CENTRAL CIRCLE. & & & & - & - & & & & & \\
\hline Hrirda - ... & \multirow[b]{2}{*}{.} & & \(\cdots\) & & & & & & *.... & \\
\hline Shikakái - & & \(\cdots\) & \(\cdots\) & 10
4,918 000 & -.. & \(\ldots\) & .. & ... & .... & \begin{tabular}{r}
10 \\
\hline 1918 \\
4
\end{tabular} \\
\hline Rosha Earth, stones, \&c. No. & ... .. & \(\cdots\) & \(\cdots\) & 4,918 00 & \(\ldots\) & .... & 700 & 175 & 700 & 4,918
175 0000 \\
\hline Do. Cart-loads \& hd.-loads & ...... & - & 11,546 & \(\} \begin{array}{ccc}\cdots & \cdots & 0\end{array}\) & \(\cdots\) & . & 4,2274 & 2,642 & \(\left\{53,820^{\circ}\right.\) & 3,899 00 \\
\hline Do. Cubuc feet - ... & \multirow[b]{2}{*}{\#.....} & \(\cdots\) & 100,740 & \} 1,257 0 0 & -* & " & 4,2274 & 2,642 & \(\{10 \mathrm{~J}, 740\) & \(\} \begin{array}{llll}3,899 & 0 & 0\end{array}\) \\
\hline Leaves and poads, \&c
Do. Cart \& Head-loads ... & & \(\cdots\) & 51
2,556 & \(\} 1,622\) 0 0 & ( & \(\cdots\) & -. & .- & \(\left\{\begin{array}{r}51 \\ \\ 2,556\end{array}\right.\) & \} 1,622 000 \\
\hline Grass and grazing ... & \multirow[t]{2}{*}{- \(\cdots\).....} & 47,353 & 2,656 & 2,67,083 00 & ... & - & 89 & 26,49s & \(\ldots\)... \({ }^{2,59}\) & 3,30,984 0000 \\
\hline \(\mathrm{M}_{1}\) scellaneous- & & \(\cdots\) & \(\cdots\) & . \(\cdot\) & . \(\cdot\) & . & 89 & 11 & 89 & \\
\hline Head loada & \multirow[t]{3}{*}{\[
\begin{aligned}
& \because . . .4 \\
& \because \because \ddot{3,410}
\end{aligned}
\]} & - & 6,947 & 2,010 00 & & & & 3,000 & 6,977
4,310 & \} 5,01C 00 \\
\hline Cart-loads & & - \({ }^{\text {25 }}\) & 4,330 & 2,010 0 & \(\cdots\) & \(\cdots\) & \(\cdots\) & 3,000 & 4,310
3,410 & \(\} \begin{array}{r}\text { 5,012 } \\ 125\end{array} 00\) \\
\hline \multirow[b]{3}{*}{\begin{tabular}{l}
Total, Central Circle ... \\
SOUTHERN CIRCLE.
\end{tabular}} & & 125 & ... & & ... & ... & \(\cdots\) & ... & 3,410 & 12000 \\
\hline & ..... & 47,478 & \(\cdots\) & 2,69,089 0 & \(\cdots\) & -•* & . & 3,326 & \(\cdots\) & 3,48,893 00 \\
\hline & & & & & & & & & & \\
\hline & & & & 11,675 00 & & & & & & 11,681 00 \\
\hline Shigikan & *.1.0 & \(\ldots{ }^{6}\) & \(\cdots\) & 11,075
449 00 & ..." & . \(\quad .0\) & \(\ldots\) & ... & ..-.... & \(\begin{array}{r}449 \\ \hline 150\end{array}\) \\
\hline Grass & \multirow[b]{2}{*}{...."} & . & - & 1,573 00 & \(\ldots\) & ... & .. & ... & .... & 1,578 0 \\
\hline Grazing \(\quad\). & & \(\cdots\) & ..0 & \(\begin{array}{r}66,209 \\ 818 \\ \hline 8\end{array}\) & ... - & .." & \(\cdots\) & ... & ... & 66,209 0 \\
\hline Cunnamon & \multirow[t]{2}{*}{......} & ... & ... & 818
3.418 000 & \(\cdots\) & \(\cdots\) & \(\cdots\) & & . \(\cdot \cdot\) & \\
\hline Honey and wax & & -. & \(\ldots\) & \begin{tabular}{rr}
3,418 & 0 \\
\(2+2\) & 0 \\
\\
\\
\hline
\end{tabular} & ... & \(\cdots\) & ... & 80 & ....... & \(\begin{array}{rrrr}8,488 & 0 & 0 \\ 248 & 0 & 0 \\ 85 & \end{array}\) \\
\hline \(\underset{\text { Dtones }}{\text { Hulgal seed }}\) C & \multirow[t]{2}{*}{........} & \(\cdots\) & ... & \(\begin{array}{lll}242 & 0 & 0 \\ 840 & 0 & 0\end{array}\) & ... & \({ }^{-\cdot}{ }^{15}\) & \(\cdots\) & \(\cdots\) & \(\cdots\) & 85500 \\
\hline Stones
Maram and sand

C & & \(\ldots\) & ... & \(\begin{array}{rrr}840 & 0 & 0 \\ 58 & 0 & 0\end{array}\) & \(\ldots\) & 15 & ... & & \(\cdots\) & 58
58 \\
\hline Karvi and creapera & ..... & . & \(\ldots\) & 51.00 & \(\cdots\) & \(\cdots\) & \(\cdots\) & ... & \(\cdots\) & 51.00 \\
\hline Yalm leaves \(\quad\)... & \multirow[t]{2}{*}{.......} & ... & - 0 & \(\begin{array}{lll}277 & 0 & 0\end{array}\) & ... & \({ }^{*} 2\) & -. & \(\because 0\) & - \(\cdot\) - & \(\begin{array}{llll}279 & 0 & 0 \\ 290 & 0 & 0\end{array}\) \\
\hline Pama trees - ... & & '•' & ..' & 1770 & '.0 & 13 & - & 100 & \(\cdots\) & 290
851
80 \\
\hline Metal a. & \multirow[t]{2}{*}{... ...} & & - \({ }^{\circ}\) & \(\begin{array}{lll}351 & 0 & 0 \\ 377 & 0 & 0\end{array}\) & \(\cdots\) & s & \(\cdots\) & . & \(\cdots\) & 380
380 0 \\
\hline  & & \(\cdots\) & \(\cdots\) & 377
280
20 & \(\cdots\) & 3 & \(\cdots\) & \(\cdots\) & \(\cdots\) & 880 \\
\hline Ramphal, Rampatri
Surgi flawers & ....... & ... & - ... & \(\begin{array}{lll}280 & 0 & 0 \\ 110 & 0 & 0\end{array}\) & \(\cdots\) & ... & ..." & \(\cdots\) & "..... & 11000 \\
\hline Wild pepper & ..... & \(\cdots\) & - ... & 1150 & \(\ldots\) & ... & ... & ... & \(\cdots\) & \(\begin{array}{llll}115 & 0 & 0 \\ 829 & 0 & 0\end{array}\) \\
\hline Nux Vomica & \multirow[t]{2}{*}{...} & ... & ... & 329 0 0 & ... & - & ... & - & \(\cdots\) & \(\begin{array}{rrr}1829 & 0 & 0 \\ 68 & 0 & 0\end{array}\) \\
\hline Earth \(\quad\). & & & ... & \(\begin{array}{lll}58 & 0 & 0 \\ 25 & 0 & 0\end{array}\) & \(\cdots\) & ... & .. & ... & ....... & 68
25 00 \\
\hline Ambéhalad & \(\ldots\) & ... & ".. & 25
236 00 & ... & -." & ...: & \(\ddot{234}\) & .... & \(\begin{array}{r}25 \\ 470 \\ \hline 20 \\ \hline\end{array}\) \\
\hline Thorns atales & \[
\begin{aligned}
& \text { ant } \theta \text { 若 } \\
& \text { att }
\end{aligned}
\] & \(\cdots\) & ... & \(\begin{array}{r}236 \\ 22 \\ \hline\end{array} 0\) & \(\because\) & -.. & \(\cdots\) & 250 & ... & 27200 \\
\hline Tah trees & ....0. & -.. & & \(\begin{array}{cc}1,982 & 0 \\ 113 & 0\end{array}\) & ... & ... & ... & .." & . & \(1,9 \times 2\) 000 \\
\hline Talu leaves & -..... & - 7 & ... & 11300 & ... & .- & ... & \(\cdots\) & ... & 113
14
0 0 \\
\hline Cocoanats & \multirow[t]{2}{*}{-.....} & 7 & \(\cdots\) & 1110 & \(\cdots\) & ... & . \(\quad\). & - & -.. & 11100 \\
\hline Fhigi bark & & \(\ldots\) & \(\ldots\) & 111
1,800 0000 & ... & ...0 & .... & \(\cdots\) & ..... & 1,800 000 \\
\hline Catechn & ........ & \(\ldots\) & \(\ldots\) & \(\begin{array}{r}1,800 \\ 23 \\ \hline 10\end{array}\) & \(\ldots\) & .... & .... & \(\cdots\) & ..... & 23
23
10 \\
\hline Bandurbi branches & .... .. & ... & .. & 180 & \(\cdots\) & \(\cdots\) & .. & ... & ...'0] & 1900 \\
\hline Carried over & -**** & 13 & ..' & 91,245 0 & -. & 83 & \(\cdots\) & 614 & ... & 91,905 0 \\
\hline
\end{tabular}

Form No. 58.-Outturn of Sinor Forest Produce in the Sind Circle during the year 1904-1905-continued.


Form No. 58.-Outtupn of Minor Forest Produce in the Sind Circle during heyear 1901-05-continued.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{} & \multirow{3}{*}{Denoription of Produce} & \multicolumn{10}{|c|}{Produce removed or utilized,} \\
\hline & & \multicolumn{2}{|l|}{By Government Agenoy.} & \multicolumn{2}{|l|}{By purchasers.} & \multicolumn{2}{|l|}{By free-grants,} & \multicolumn{2}{|l|}{By right-holders} & \multicolumn{2}{|l|}{Total.} \\
\hline & & Quantity. & Value. & Quantity. & Value. & Quantity. & Value. & Quantity & Value. & Quantity. & Velue. \\
\hline & 1 & 3 & 8 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 \\
\hline \multirow[t]{11}{*}{} & SIND CIRCLE-
continued. & & .R. & & Rs. & & R. & & Be. & & R. \\
\hline & Babal seed & 415 mdso & 526 & & & ...... & \(\cdots\) & & ... & 415 mannds & \\
\hline &  & & & 63 maunds
635
bundles & 24
44 & 20 bundies. & \({ }^{* \cdot 1}\) & \(\cdots\) & \(\ldots\) & \({ }_{655}^{63}\) bundleo. & 45 \\
\hline & \({ }_{\text {Grass }}\) Bhat & & \(\cdots\) & 2,931 loads & 166 & 420.7. & \(\cdots\) & \(\ldots\) & ... & 2,381 loade & 156 \\
\hline & Bhan (Manure)
Kanh grasa & ....... & \(\ldots\) & \(\xrightarrow{\text { 1,424 }}\) Contract & - 208 & 420 loadr. & \(\ldots{ }^{. . .}{ }^{7}\) & \(\cdots\) & \(\cdots\) & Contract & - 21.140 \\
\hline & Lac & \(\cdots\) & \(\cdots\) & Conkract & 7,525 & ....... & \(\cdots\) & \(\ldots\) & ... & Contract & 7,525 \\
\hline & \({ }^{\text {Babul pods }}\) pod \({ }^{\circ}\) & . & & \(»\) & 16,208 & ...... & \(\ldots\) & .. & ... & " & 16,208 \\
\hline & Mango, Vegotablo, dc. & ..... & ... & ...... & 198 & ..... & ... & ... & ... & *...." & 198 \\
\hline & Compensation_for lop- & ... & ... & ..... & 651 & ...... & ... & ... & ... & -.. & 651 \\
\hline & Glazing fees & .. & ... & ...... & 21,295 & ....0. & 3,639 & ... & 572 & ...... & 26,506 \\
\hline & Total .. & ... & 526 & \(\cdots\) & 47,449 & ...... & 3,647 & ... & 572 & ... & 62,194 \\
\hline \multirow{9}{*}{\[
\begin{gathered}
\stackrel{4}{d} \\
\stackrel{y}{4} \\
\end{gathered}
\]} & Bábul pods Sar grass & & & Contract & 5,073 & ....". & & & & Coutract & 6,079 \\
\hline & Lac & ..... & ... & " & - 18,799 & - & \(\cdots\) & ... & \(\ldots\) & " & 13,799 \\
\hline & - Mango fruit & & ... & \(1{ }^{3}\) bundles & 14 & 132 buñles & \({ }^{\cdot 7} 8\) & ...' & \(\cdots\) & 148 Bundles & 14
9 \\
\hline & Babul and Eandi & ...... & ... & & 88 & … . & ... & ... & \(\because\) & \[
\begin{array}{lll} 
\\
834
\end{array}
\] & 88 \\
\hline & Compensation for & .....* & - & ... & 134 & ...... & \(\because\) & ... & ... & ...... & 184 \\
\hline & Grazring fees . .. & ... & .. & ...... & 12,424 & ... & 3,507 & ... & 2,093 & & 18,024 \\
\hline & Total & ... & '." & ... & 31,698 & ..... & 3,515 & ... & 2,093 & ...... & 87,3166 \\
\hline & Total, Sind & ... & 819 & ..... & 98,060 & ..... & 9,342 & ... & 16,291 & .-7. & 1,23,512 \\
\hline & Grand Total & ... \({ }^{\circ}\) & 48,355 & .* & 4,09,981 1510 & ..."0 & 9,375 & - 0 & 84,787 & ...." & 676,409 \\
\hline
\end{tabular}

Form No. 59.-Account of Timber and other Produce cul or collected by Gonernment Agency and brought to Depots, suld locally or olherwise disposed of during the year 1501-1900.


Fony No. 59.-Account of Timber and other Prodnce cut or collected by Government Agesey and brought. to Depôts, sold locally, or otherwise disposed of during the year 1904-1905-contanued.


Form No. 60-A.-Abstract showing the Talue of Tember and other Produce at Sale Depols for the year 1504-1J05.


Foxy No: 60-A.-Abstract showing the Valne of Timber and other Produce at Sale Depốts for tha year 1904-1905-continued.


Form No. ô0-B.-Abstract showing the Falue of the Live and Dead Stock for the year 1904-1905.
\[
\text { в } 624-37
\]

Fork No. 60-B-Abstact showing the Value of the Live and Dead Stock for the year 1904-1905-oontinued.


Form No. 61.-Summary of Revenue and Expenditure of the different Divisions for the Forest year 1904-1905.


Fonm No. 61.-Summary.of Revenue and Expenditure of the dufierent Dinisions for the Forest year 1901-1305-contd.


Form No. 61.-Summary of Revenue and Expenditure of the different Divisions for the Forest year 1904-1905-contd.


Fory No. 61.-Summary of Revenue and Expenditure of the different Divisions for the Furest year 1901-1005-contd:


Fory No. 61.-Summary of Revenue and Expenditure of the different Divisions for the Forest year 1904-1905.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Badgot Hend. & Direction & Belgaum Division & Biapur Division & Dharway Dinision. & Kánara Northera Division. & KEnart, Southern Division & Ranars, Western Division. & Kolaba
Division. & Ratuagir Division. &  & Total for the Poreat jear 1804-1005. \\
\hline \multirow[t]{3}{*}{\begin{tabular}{l}
SOUTHERN CIRCLE. \\
revenue. \\
1.-Timber and other Produce remosed from the 4goney- \\
a. Timber \\
b. Firewood and char-coal \\
e. Bamboor \\
d. Gamesalwood and othor minor produce
\end{tabular}} & He a p. & Re. s. p & Rg. .1. p. & R.s.as. \(\mathbf{p}\). & Ra. a. p. & Bu. a. p. & Ro. a. p. & Rs, A P p. & Re, at p. & Rs, as p & Re, a. p. \\
\hline &  &  & \[
\begin{array}{ccc}
2 & 0 & 0 \\
850 & 12 & 0 \\
\cdots \cdots & . . \\
\cdots & & \\
\hline & \cdots & \\
\hline
\end{array}
\] & \[
\begin{array}{ccc}
0,780 & 1 & 0 \\
8,779 & 8 & 0 \\
16,18 & 1 & 6 \\
18,888 & 15 & 9 \\
\ldots . . . & \\
\hline
\end{array}
\] & \[
\left|\begin{array}{rrr}
4,28,089 & 14 & 1 \\
20,477 & 13 & 2 \\
5 & 8 & 0 \\
4 & 0 & 0 \\
7 & 13 & 0
\end{array}\right|
\] & \[
\begin{array}{|rrr|}
2,80,407 & 11 & 8 \\
769 & 2 & 8 \\
6,8 & 15 & 0 \\
6,65 & 7 & 7 \\
\ldots \ldots . . & \\
\hline
\end{array}
\] & \[
\left.\begin{array}{ccc}
84,805 & 8 & 9 \\
7,171 & 18 & 7 \\
\cdots \cdots .0 \\
\cdots & 0 & \\
51 & 18 & 0
\end{array} \right\rvert\,
\] &  & \(\cdots\) & \(\ldots\) & \[
\begin{array}{rl}
7,71,160 & 711 \\
2,40,000 & 4 \\
40 \\
22,018 & 6 \\
\hline 6 \\
69 & 9
\end{array}
\] \\
\hline & . \(\cdot \mathrm{m}\) & 2,90,774 81 & 658120 & 25,881 13 B & 4,57,584 11 c & 2,87,924 1 & 41,829 24 & m.0. & . 0 & - & 10,44,633 3 \\
\hline \multicolumn{12}{|l|}{II-Timber and other Proantioe romoved from the Porests by Consumers or Purchavers-} \\
\hline \begin{tabular}{l}
a. Tlimber biremood and ohar:- \\
b. Moombod and ohar- \\
c. Bamboos
d. Grazing
and fodder \\
a. \(\begin{gathered}\text { grass } \\ \text { Other minor produce }\end{gathered}\). \\
f. Forest Etanps \\
8. Other items \\
n. Commutation fees ...
\end{tabular} &  &  &  & \[
\begin{array}{ccc}
10,837 & 19 & 0 \\
1,489 & 0 & 0 \\
3,218 & 7 & 8 \\
10,939 & 14 & 0 \\
474 & 11 & 8 \\
\cdots \cdots . & \\
\cdots \cdots & \\
\hline
\end{array}
\] & \[
\left.\begin{array}{rrr}
24,408 & 1 & 8 \\
685 & 3 & 0 \\
16,085 & 7 & 11 \\
5,069 & 15 & 9 \\
1,262 & 1 & 11 \\
\ldots \ldots & \\
\ldots . . & &
\end{array} \right\rvert\,
\] & \[
\begin{array}{ccc}
16,878 & 0 & 5 \\
1980 & 8 & 2 \\
7,756 & 16 & 6 \\
144,498 & 4 & 3 \\
6,159 & 12 & 8 \\
\cdots \cdots \cdots \\
\cdots \cdots . \\
\hline . . . \\
\hline
\end{array}
\] & \begin{tabular}{ccc}
23,660 & 1 & 11 \\
20,995 & 6 & 5 \\
1,997 & 0 & 7 \\
11,995 & 2 & 0 \\
6,433 & 2 & 7 \\
\(\cdots \cdots \cdots\) \\
\(\cdots\) & \\
\(\cdots\) & \\
\hline
\end{tabular} &  & \begin{tabular}{l}
391148 \\
86106 \\
\(\begin{array}{cc}9071 \\ 0 & 11 \\ 0 & 4 \\ 0\end{array}\) \\
4 \\
- 144
\end{tabular} &  & \begin{tabular}{ccc}
\(1,48,725\) & 10 & 9 \\
\(-41,810\) & 1 & 5 \\
36,218 & 2 & 4 \\
67,818 & 8 & 0 \\
25,188 & 13 & 5 \\
\(\cdots \cdots .0\) \\
\(\cdots\) & \\
\(\cdots\) & \\
\hline
\end{tabular} \\
\hline tal, & . \({ }^{-\dot{4}}\) & 71,026 11 & 1,496 70 & 27,071 15 9 & 48,308 14, 3 & 43,105 12 & 68, 420 19 6 & 83,242138 & 47915 & "• & 3,19,752 611 \\
\hline \multirow[t]{2}{*}{} & ... ... & 186100 & 0110 & 193127 & 28442 & 80 & 3228 & 408118 & ... & \(\cdots\) & 1,882 410 \\
\hline & -.. & 18010 & 0110 & 193187 & 2344 & 80 & 3223 & 400119 & .. & ** & 1,382 419 \\
\hline 17.-Reoenue from Forceita not managed by Govern-mant- & & & & & - & & & & & & \\
\hline \multirow[t]{2}{*}{\begin{tabular}{l}
a. Duty on foreign timber and other lorest \\
b. Rovenue from shared and private Forests
Total, IV ..
\end{tabular}} &  & ***** & . \(\times 1\). & "0.0.0. & ........ & ....... & .". & \%6118 &  & ... & \({ }^{-704}\) \\
\hline & .... & -..' & & ... & *** & ... \({ }^{\circ}\) & -0.0. & 8712 & 882 & ** & 874 \\
\hline \multirow[t]{5}{*}{} & & & & & & & & & & & \\
\hline & \[
83700
\] & \[
\begin{array}{rrr}
85 & 0 & 0 \\
1,60 & 10 & 8 \\
1,100 & 5 & 8 \\
\hline
\end{array}
\] & \[
\begin{array}{rrr}
8 & 0 & 0 \\
335 & 8 & 0
\end{array}
\] & \[
\begin{array}{rrr}
17 \cdots 10 & 10 \\
587 & 9 & 7
\end{array}
\] & \[
\begin{array}{rrr|}
179 & 1 & 1 \\
8 & 8 & 2 \\
1,408 & 10 & 0 \\
\hline
\end{array}
\] & \[
\begin{array}{rrr}
110 & 0 & 0 \\
2,188 & 18 & 4 \\
2,<85 & 10 & 11
\end{array}
\] & \[
\begin{array}{rrr|}
82 & 6 & 6 \\
100 & 6 \\
2,10 & 9 & 0 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 1,86618 \\
& 69 \\
& 6,414 \\
& 68 \\
& \hline
\end{aligned}
\] & \[
\begin{array}{rrr}
7 \dddot{8} 10 \\
146148
\end{array}
\] &  & \[
\begin{array}{rr}
2,897 & 610 \\
15,151 & 7 \\
151 & 1 \\
\hline
\end{array}
\] \\
\hline & 83700 & 1,142 0 5 & 3438 & 60545 & 1,594 68 & 2,634 8 & 2,202 4 & 8,826 8 8 6 & 154 & 230 & 17,761 158 \\
\hline & 8370 & 3,09,709 14 & 2,998 60 & 63,792 130 & 5,07,772 49 & 3,33,572 9 9 4 & 1,08,774 6 & 72,946 14 8 & 68814 & 290 & 13, \(24,404 \mathrm{~S}\) 3 \\
\hline & & & & & & & & & - & & \\
\hline I-Tumber and other ProTuce removed from the Forests by Governmeni
Agency-Agency- & & & & & - & & & & & & \\
\hline  &  & \begin{tabular}{rrr}
9,17311 & 2 \\
\(1,08,258\) & 4 & 9 \\
193. & 8 & 9 \\
\(\ldots\) & 0 \\
1116 & 7
\end{tabular} & 418156 -.... & \[
\begin{array}{cc}
1,229 & 11 \\
2,159 & 2 \\
25 & 0 \\
1,049 & 8 \\
\hline
\end{array}
\] & \[
\begin{array}{cccc}
1,33,890 & 1 & 4 \\
16,039 & 9 & 10 \\
\ldots \ldots . & \\
\ldots . . & &
\end{array}
\] & \[
\left\lvert\, \begin{array}{rrr}
1,10,407 & 6 & 8 \\
240 & 6 & 0 \\
7 & 11 & 0 \\
650 & 13 & 6 \\
\ldots \ldots .0 & & \\
\hline
\end{array}\right.
\] & \[
\left[\left.\begin{array}{c|ccc|}
80,282 & 5 & 8 \\
0 & 3,989 & 5 & 11 \\
0 & \ldots . . & & \\
8 & 2 & 0 & 0
\end{array} \right\rvert\,\right.
\] &  & \(\stackrel{\square}{\cdots}\) & \(\cdots\) & \[
\begin{array}{rrr}
2,74,000 & 8 & 7 \\
1,32,009 & 9 & 6 \\
270 & 9 & 0 \\
1,600 & 8 & 1 \\
13 & 15 & 7 \\
\hline
\end{array}
\] \\
\hline Total, A-1 & . . & 1,17,037 78 & 412156 & 4,448 11 ll & 1,50,829 11 & 1,11,215 4 & 24,273 117 & 75 & ... & & 4,08,825 29 \\
\hline \multirow[t]{2}{*}{\begin{tabular}{l}
II -Timber and other Producs removeg from the Poresto by
\(P_{\text {wrchasers }}\)
Conswmera or \\
Total, A-II
\end{tabular}} & & 1,217 \({ }^{\text {2 }}\) & 21120 & 8916 & 69548 & 7098 & 8,136 \(10{ }^{-}\) & 3,987 < 11 & 225 & \(\ldots\) & 10,650 3 4 \\
\hline & . & 1,247 24 & 21120 & 89163 & 59448 & 70959 & 8, 8,188 10 \% & 8,867411 & 235 & \(\cdots\) & 10,680 3 4 \\
\hline III-Drift and Wanf Wood and Conficated
Porest Produce & d & , 11110 & 040 & 2190 & 680 & 18 & \(16 \% 8\) & 11158 & 0 4-6 & \(\cdots\) & 6129 \\
\hline Total, A-III & * ... & 11110 & 040 & 2130 & 660 & 180 & o 16 - & 1115 & \(0 \times 6\) & m & 51 \\
\hline 1V.-Hevenue from Forests mot managed by Govern-ment- & & & & & & & & & & & - \\
\hline \multirow[t]{2}{*}{\begin{tabular}{l}
- Duty on foreign timber and other forest produce \\
8 Revenue from shared and privata Foresta \\
Total, A.IV
\end{tabular}} & (1)... & -1.4. & -0.... & \(\cdots\) & +....... & \(\cdots\) & - & -100. & \(\ldots\) & - & \(\cdots\) \\
\hline & \(\ldots\) & -* & *** & **" & "mom & - & \(\cdots\) & \(\cdots\) & "' & - & \(\cdots\) \\
\hline
\end{tabular}

Form No. 61.—Summary of Revenve and Expenditure of the diferent Divisions for tho Forest year 1904-1905-contd.


Fopm No. 61.-Summary of Revenue and Expenditure of the different Divisions for the Forest year 1904-1905-continued.


Fomm No. 61.-Summary of Revenwe and Expenditare of the different Dizisions for the Forest Year 1904-1505-concluded.


Form No. 62.-Annual Account Current for the Fovest year 1904-1905.


Form No. 62.-Annual Account Current for the Forest year 1901-1905-continued.


Fony No. 62.-Annual Account Current for the Forest year 1304-1305-continued.

- 62i- 10

Form No. 62.-Annual Account Current for the Forest year 1301-1305-concluded.
\begin{tabular}{|c|c|c|c|c|c|}
\hline SIND CIRCLE. & Rs, a. P. & Re. an p. & & Rs. a. p. & Ir. \& p. \\
\hline To Opening Balance & * & 138111 & By 1. Refunds and Drawbacks- & & \\
\hline \begin{tabular}{l}
„ VIII, Assossed Taxes-Income Tar- \\
- Deductions by Government
\end{tabular} & & & Divided Heads, Forest ... & **.." & 20327 \\
\hline \begin{tabular}{l}
- Deductions by Government from Salanes and Pensiong, \\
Tax on other soarces of Income,
\end{tabular} & -** & 823010 & \[
\text { " 11. Forest (as per Annual Sum- } \underset{\text { mary Form No. } 61 \text { ) }}{\text { Hon }}
\] &  & 1,41,105 \(11 \quad 7\) \\
\hline  & - \({ }^{\text {asa }}\) & 4,06,954 00 & "14. Interest on other Obliga & & \\
\hline n IX. Forest (es per Annual Summary Form No. 61) & ** & .. ... & Savings Bank Deposits- & & - \\
\hline () XII Interest- & & - & Interest on Forest Officers' Prondent Fund... & .. & 519118 \\
\hline Interest on Arrears of Revenue. & ... & . \(\cdot\) & & & \\
\hline n XXV. Miscellaneous- & & & , 32. Miscellaneong-Mascellaneons Refunds- & & \\
\hline Sale-proceeds of Strires and Materials (Provincial) & c* & **." & Lapsed Deposita ... \(\quad .\). & *** & -60109 \\
\hline \[
\begin{array}{cccc}
\text { Unolaimed } & \text { Deposits-Other } \\
\text { Deposits } & \text {... } & \cdots & \cdots
\end{array}
\] & *. \({ }^{*}\) & \(\because\) & , Circil Deposits-Forest Deposits ... & , 3. & 16,045 129 \\
\hline *) Bombay Uncovenanted Service Family & & & , Advances Recoverable- & & \\
\hline & & & Forest Advances ... . & **** & 67,391 134 \\
\hline Widows' Branch ... ... & ..... & 67110 & Tentage Advances .. \({ }^{\text {a }}\).. & ... \({ }^{\text {* }}\) & \\
\hline Life Assurance Branch & ".8. & & . & & \\
\hline & & 36,992157 & Objection Book Advances & .ac .- & 2500 \\
\hline \({ }^{3}\) Civ. \({ }^{\text {d }}\) Deposits (Forest Deposits) & - . & 30,992 167 & & & \\
\hline „ Advances Recoverable- & & & , Cash Recoveries ... . ... & - & 2,494 60 \\
\hline Forest Advances ... . & ...." & 66,376 45 & " Cheques and Bills \(\begin{gathered}\text { Cheques) Forests }\end{gathered} \begin{gathered}\text { (Departmental } \\ \text {.. }\end{gathered}\) & "•* & .00. \\
\hline Tentage Advances ... & ..... & & & & \\
\hline Objection Book Adrances ... & \(\cdots\) & 2500 & \% Forest Remittances- & & \\
\hline & & & Remittances to Treasuries .. & ..... & \(4,40,959 \quad 41\) \\
\hline " Cash Recoveries ... ... ... & *..... & & Inter-departmental Transfers. & ... & \\
\hline \[
\begin{gathered}
\text { Cheques and Bulls (Departmental } \\
\text { Cheques) Forest }
\end{gathered}
\] & - \(\cdot\) & \[
1,54,816142
\] & Accounts Ourrent- & \(\checkmark\) & ..... \\
\hline Forest Remittancea- & * & & & & \\
\hline - Remittances to Treasumes ... & ... \({ }^{\circ}\) & 9130 & By Account between Bombay and Multary, Bombey- & & - \\
\hline Inter-departmental Transfers... & \(\cdots\) & 97121 & IV. Items adjustable by Muli- & ....' & **' \\
\hline Accounts Carrent- & & & , Account between Bombay and & & . \\
\hline "Acrount between Bombay and Post Office- & & & Publio Works DepartinentBombay (Ordinary Branchesj- & & \\
\hline \begin{tabular}{l}
Postal Fund Deduction .. \\
, Account between Indis and Bombay-
\end{tabular} & -••••• & ... & " IV. Items adjustable by Public Works Depart-ment- & & \\
\hline IIL. Items adjustable by India-- & & & Inter-departmental Transfors & \(\cdots\) & 2007122 \\
\hline , Account between Bombay and Public Worke Department, Bombay- & & & Muscellaneous -0. & *.** & . \(\cdot\) • \\
\hline IV. Items adjustableby Public Works Department - & & & , Account between Bombay and Puble Worke Department- & & \\
\hline Payments into Treasuries by Cavil Officers on account of Public Works Department ... & 'm'0 & 248100 & (Railway Branches)-Railway- & & \\
\hline Miscellaneous ... & \(\cdots \cdot\) & ...... & Worke Department & *** & [610* \\
\hline Forest Officers' Provident Fund & ..... & 2,802 118 & Closing Balance & & 249106 \\
\hline Total & .. ... & 6,71,847 48 & Total & ... & 6.71,847 4 \\
\hline Gramd Totar ... & * • & \(\begin{array}{|cc|}6,27,316 & 4\end{array}\) & Grand Totar ... & .... & 60,27,210 40 \\
\hline
\end{tabular}

Fonm No. 63.-Revenue received and Outstandings on account of Revenue during 1001-1905.


Fory No. 64.-Oxtstandinga and Liabilities on accosnt of Contractors and Disbursers for the Furest gear 1304-13C5


Fory No. 64,-Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1304-1305-contd.


Fory No. 65.-Financial Reswlts of the year 1901-1905.
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[^0]:    26. A further sum of Rs. 15,495 was expended on the new metalled road connecting the Tawargatti timber depòt with the forests of the Supa Working Circle. Except for consolidation of the metal and the constraction of 2 or 3 culverts the road is now complete. Rs. 2,835 we:e expended on the construction of bridges on the Katur-Umachgi Road in Kinara Southern Division, and Rs. 1,250 on the new Hosakambi-Changarhalla Road in Kanara Western Division. Iu Koliba a new road was commenced at a cost of Rs. 762.

    $$
    \text { a } 624-15
    $$

[^1]:    - 90. Details according to class of forest cannot be given as separate accounts are not kept.

    91. The quantity of timber extracted is much the same as the average of the past 3 years, the rise in value being due (1) to the substitutiom of teak for jamba in respect of sleepers supplied to the Southern Maratha Railway Company, and (2) to the general rise in the prices of timber.
    92. The fall in the value of minor produce is mainly due to the abandonment of the departmental collection of myrabollams.
