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Proceedings of the Madras Government, Revenue Department, 19*th September* 1862.

No. 383. Read the following letter from Major H. R. MORGAN, late Officiating Conservator of Forests, to J. D. SIM, Esq., Secretary to Government, Revenue Department, Fort Saint George, dated Ootacamund, 5th July 1862:—

SIR,

1. I have the honor to forward my annual Report for 1861-62.

2. I have to explain that there has been some delay in the printing, to account for the Report not reaching Government by the 30th of June.

No. 384. ORDER THEREON, 19th September 1862, No. 2,040.

1. The Government proceed to review the Report of the late Officiating Conservator of Forests for the official year 1861-62.

2. *Waindd Forests.*—Paragraphs 2—5. These forests consist principally of Teak, but they contain an abundance of fine Blackwood and much Bamboo jungle. They have received much damage from the depredations of Kurambars, and by the practice, called "takkul," of making temporary clearings for the clandestine cultivation of Raggee, but "takkul" seems to be on the decline. Paragraphs 2, 3 and 4 will be brought to the notice of the Collector through the Board of Revenue.

3. In paragraph 5 it is urged that the Assistant in charge of these forests should, for forest purposes, be invested with magisterial powers. This the Government cannot permit. It would be contrary to principle that the Conservator should adjudicate in his own cases.

4. *Hoonsoor Forest.*—Paragraphs 6—14. This forest has lately* been transferred from the Commissariat to the Conservator's Department. A grant of 10,450 Rupees has recently† been sanctioned in the Department Public Works for the completion of the Tambracherry Ghât.

* G. O. 10th September 1862, No 1,927.

† G. O. 3rd July 1862, No. 1,560, P. W. D.

5. In paragraph 9 of the Report, Major Morgan observes, that "the boundaries of the different Government forests have not yet been decided." The boundary line between Wainád and Mysore was finally determined on in the Order of Government No. 1,479 of the 8th July last, but this remark seems to refer to the claims advanced by certain Devastanams and Uralars, upon which the Director of Revenue Settlement has been directed to report. The Survey and Settlement parties have now been withdrawn from Wainád, but the Director will report what progress has been made in the demarcation of forest boundaries, and whether any arrangements can be made by his Department for the final settlement of the above claims. It is desirable that the limits of all the forests in the country should be defined where practicable and the progress of the Revenue Survey will tend to this result.

G. O. 166 of 31st January 1860.
" 844 of 15th April 1862.

6. *Mudumalai Forests.*—Paragraphs 15—18. These forests are held on a lease which expires in March next, by which time it is anticipated that nearly the whole of the Teak fit for felling will have been cut. There is a large stock of timber on hand, lying in the forest. This should be removed without delay, as it is stated that all timber remaining in the forest after the expiration of the lease will be forfeited to the proprietor. The question of renewing the lease is now under the consideration of Government. Financially Mudamalai exhibits a very small profit, but the wood in store has not been brought to account.

7. *Sigur Forest.*—Paragraphs 19—22. The cuttings in this forest have been confined to Sandalwood, the Teak jungles having been exhausted by former contractors and requiring rest. Its receipts exceed its expenses by nearly 20,000 Rupees and Government are assured that this profit will be annually maintained.

8. *South Canara.*—Paragraphs 23—27. These forests would not appear from the Overseer's Report to be in a very flourishing condition, though young trees, worth taking care of, are said to be springing up in abundance. The forests of this District should be visited by the Conservator and separately reported on.

G. O. 18th June 1862, No. 1,343.

9. *Neilgherry Sholas.*—Paragraphs 28—31. These Sholas have now been placed under the Assistant Conservator in charge of Sigur and Mudumalai, and a saving of more that 10,000 Rupees has been effected by this arrangement. The case of Messrs. Wilson & Co., who purchased the wood of a portion of the Governor's Shola for the purpose of supplying firewood to the residents of Ootacamund and who subsequently petitioned for the remission of a portion of the purchase money on the plea that they had been great losers by the undertaking, has been disposed of in the Proceedings of Government 29th May 1862, No. 1,190. It was there decided that Messrs. Wilson & Co. must abide by their contract. Up to the date of the report nothing had been done for the Kotagherry Sholas, but Captain Beddome has since submitted a scheme which is under consideration.

10. *Wellington Fire-wood plantations.*—Paragraphs 32—36. Major Morgan shows that these plantations have altogether cost about 170 Rupees an acre, whereas 60 Rupees an acre is the utmost charge that should be allowed, and even that should include roads, ditches, tools, &c. The charge for supervision however has been out of all proportion to the operations. The total amount that has been expended in the year is very insignificant. "Hardly any thing has been "done in fact since November 1861, not a cooly has been employed, as without funds it was "impossible to carry on work." This is a very bad state of things, and should have been reported to Government before. The plantations present a very poor appearance, and but little change is observable since they were first authorized in 1859. Captain Beddome's special attention will be drawn to their condition.

11. *The Chinchona experiment*—(paragraphs 36—58) will be noticed separately.

12. *Anamallai Forest.*—Paragraphs 59—66. The result of the operations in this forest during the year under review is very unsatisfactory. Major Morgan advances various reasons for the falling off in the profits, but it appears to be chiefly owing to the illness of the Officer in charge. The other reasons given would apply equally to preceding years. The Acting Conservator should visit the forest at an early date and submit a further report on its existing condition.

13. *Madura.*—Paragraph 67. The forests of this District should be provided with a regular establishment. Their financial state is satisfactory, and a further increase of Revenue is anticipated.

14. *Cuddapah and North Arcot Forests.*—Paragraphs 68, 69. The seigniorage on Red Sanders-wood has been fixed at 6 Rupees per bandy load in both Cuddapah and North Arcot, and the jungles of the former District, with those of the latter contiguous to it, have been placed under a single Officer.

G. O. 16th July 1862, No. 1,537, paragraph 12.

G. O. 27th June 1861, No. 1,261.

15. The conservancy of the Cuddapah jungles has been delayed by the misconduct of the Assistant Mr. R. Morison. In their Proceedings of 19th May last, No. 1,105, the Government sanctioned the prosecution of that Officer; but in a more recent Proceeding, taking into consideration the state of his health at the time the frauds were committed, they withdrew the Order for his prosecution and directed that he should be dismissed.

G. O. 9th August 1862, No. 1,699.

16. *Nellambore Teak plantations.*—Paragraphs 70—82. These plantations are now under the care of Mr. Fergusson whose appointment received the confirmation of Government in their Proceedings of the 20th May last, No. 1,110. Some progress has been made in thinning the plantations which are stated to be suffering severely from over-crowding. Great attention should be paid to these thinning operations, and application may be made for such extra funds as can be profitably expended.

17. In paragraph 79 it is proposed to employ at Nellambore some of the eleplants which are maintained by the Commissariat at Calicut and Malliapuram but which are said not to be required by that Department. This application will be disposed of in the Military Department.

Proceedings of the Madras Government, Revenue Department, 19th September 1862.

18. The receipts from these plantations are very trifling, amounting only to Rupees 808, as the sales which were conducted by the Collector were not effected in time to appear in the annual returns. Major Babington is of opinion that the 50,000 saplings cut in thinning the plantations will not fetch much, and "in fact that many of them are not worth the carrying "away." Major Morgan on the contrary reports that "the thinnings last year realized 4 Annas "each on an average, and this year, they should bring in a little more, the trees being somewhat "larger." Fifty thousand saplings even at the lower rate would bring in 12,500 Rupees, but the sale proceeds will appear in the current year's accounts. The item of expenditure is estimated by Major Babington at Rupees 5,358, while in the general Statement submitted by Major Morgan it appears as Rupees 3,779. As this is an experiment of importance the annual reports should in future exhibit the receipts and charges up to date, as well as within the year, and they should also show the number and probable value of the trees standing.

19. *Salem.*—Paragraphs 83—96. Major Morgan states that a profit of Rupees 42,947 has been realized from the forests of the Salem District, but in the Statement annexed to his Report the balance in favor of Government is entered as Rupees 44,609. In either case the financial result is satisfactory, but Captain Beddome will be careful to enter the correct amount in his next report. In future the financial Statements should exhibit the results of the year in comparison with the preceding year.

20. The sanction of the Government of India to the revised establishment for this District was communicated to the Acting Conservator in an Order dated 14th June 1862, No. 1,312, and more recently a new Code of Rules for the conservancy of its forests has been specially authorized. The Government wish to be informed what are the "forests products" alluded to in paragraph 96.

9th August 1862, No. 1,696.

21. The Acha-wood forests at Denkincottah which are said to be of considerable value are at present closed on account of the impracticability of the Pennagaram Ghát. In a former report Major Morgan recommended that the Ghát, which is at present merely "the rocky bed of a water-course," should be retraced, and the road at the foot improved. The Government desire further information on this subject, with estimate of the cost and probable consequent receipts.

Vide paragraph 8 of Government Order No. 970 of 30th April 1861.

22. *Chennat Nair Forest.*—Paragraph 97. This forest has been taken by the Railway Company on a lease for three years. It is now suggested that at the expiration of the lease the forest should be put under regular conservation, but the Government presume that this proposal will be brought before them in a more definite form.

23. Paragraph 98 enlarges on the subject of conservancy. The remarks there made will be considered when the reports called for* from the Collectors and Board of Revenue are received, and the Board of Revenue will be requested to expedite those reports. Major Morgan here adduces, as an instance of what conservancy may do for the returns of a forest, a case in which Captains Beddome and Brine recommended that they should undertake a contract which would have been disastrous to the Revenue. This might well have been omitted. The short-comings of Officers should be reported at the time, when they can defend themselves and when Government can punish proved derelictions of duty. They should not be brought forward in an annual report of operations.

* G. O. 1st May 1862, No. 933, paragraph 13.

24. Paragraph 99 contains a suggestion for the preservation of wooden sleepers by fitting small pieces of galvanised sheet iron under the chairs. This will be communicated to the Financial Railway Department, for the information of the Railway authorities.

25. In paragraph 101 Major Morgan brings to notice the fine quality of the Satin-wood to be met with near the foot of the Anamalais, and he recommends that a few hundred loads should be cut for the Madras market. This is a question to be decided by the Conservator himself. There can be no objection to his felling the wood as proposed provided the cost can be met from the allotment contained in the Budget.

26. Paragraph 103 deals with the subject of waste lands, and Major Morgan states his opinion that it would be impolitic to refuse systematically all forest land, and that it should be given on condition that the jungle above 6,700 feet should not be cut, and that for every bandy load of wood sold a seigniorage of 1 Rupee should be paid. The Government have already authorized the reservation of the Devi Shola, and they will be prepared similarly to reserve other forests that may be required for public purposes, or the destruction of which would be likely to affect unfavorably the rain-fall and climate, but where waste land is to be sold they prefer selling it outright with all upon it. The reservation of the timber would lead to endless disputes and its value will always be realized at the sale of the land.

27. A map of the Wainád forests accompanies Captain Hunter's very complete and interesting report, and Major Morgan recommends (paragraph 196) that it should be lithographed. Captain Hunter however states that he has been unable to mark off the forests belonging to Government on account of the uncertainty which exists regarding the boundaries. The Government therefore defer passing any orders regarding the map, pending the submission of the reports called for in paragraph 5 *supra*.

28. Major Morgan expresses himself well satisfied with the exertions of the Assistant Conservators and his other subordinates.

29. *Financial results.*—Paragraph 109. The profits of the year considerably exceed those of the preceding years, as exhibited in the margin, and so far the results of conservancy are satisfactory. North Canara which contains the finest and most profitable forests has now been transferred to the Bombay Presidency, and if the profits of that District be taken at the same amount as in the previous year for the sake of comparison, and because the value of the wood in store appears to have been entered in the receipts, the total profits will be reduced from Rupees 4,28,639 to Rupees 2,03,585. Even after this deduction the profits of 1861-62 show a satisfactory excess over the preceding years.

	Rs.
1859-60	
1860-61	1,98,294
1861-62	1,83,731
	4,28,630

See Statement submitted with the Acting Conservator's letter, recorded in Government Order, 18th June 1862, No. 1,341

30. The value of the timber on hand is estimated at 2,69,000, but this is exclusive of the wood stored in North Canara for which the Bombay Government have to account.* There is in hand 91,000 Rupees worth of Anamalai wood. Had this been sold within the year, as Major Morgan remarks, the operations in those forests would have presented a very different result. In fact instead of a loss of 20,000 Rupees a profit of 70,000 would have been exhibited. Major Morgan says 50,000, but he appears to have deducted the expenses of the year, 42,200 Rupees, which have already been brought to account, and he has omitted to make allowance for the loss now standing in the financial Statement. The profit to be derived from the sale of this timber will appear in the accounts for next year.

* G. O. 9th July 1862, No. 1,500.

(True Extract.)

(Signed) P. P. HUTCHINS,
Acting Deputy Secretary to Government.

Ppt 4 Sept 62

My Dear Hutchins,

Ellis mentioned that you are drawing up the Order on the 1861-62 Forest Report. The head given for the note.

I think, if each year, the receipts & expenditure of each separate forest were summed up, as in this volume, it would

an advantageous
mode of Exhibiting
the Results.

Yours truly
Hy Ayr

This letter referred
to a comparative
statement of the receipts
& Expenditure on
account of the
various English
Forests, Extending
over a period of 50
years. as the Indian
Conservancy depart.
is "yet in its infancy",
it would hardly be
worth while to compile
such a statement at
present.

REPORT

OF THE

CONSERVATOR OF FORESTS,

FOR THE

OFFICIAL YEAR

1861-62.

MADRAS:

PRINTED AND PUBLISHED BY H. SMITH, AT THE FORT SAINT GEORGE GAZETTE PRESS.

1862.

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APPENDIX.

A. Wynád Forest Report.
B. Mudumallai Forest Report.
C. Sigúr Forest Report.
D. South Canara Forest Report.
E. Nilgiri Shola Report.
F. Wellington Plantation Report.
G. Anamallai Forest Report.
H. Madura Forest Report.
I. Nelambore Teak Forest Report.
J. Cuddapah and North Arcot Forest Report.
K. Salem Forest Report.
L. North Canara Forest Report.

ERRATA LIST.

Para 5, line 3 for *Jubbulpore, Pegu and possess them* read *Jubbulpore and Pegu possess them.*

Para 40, line 23 for *dense shola* read *dense sholas.*

CAMP OOTACAMUND,
1st *May* 1862.

No. 1.

From MAJOR H. R. MORGAN,

Officiating Conservator of Forests.

To J. D. SIM, Esq.,

Secretary to Government, Revenue Department.

SIR,

I have the honor to forward my annual Report for 1861-62, of the Forests under my charge.

2. WYNÁD FORESTS.—In the month of February last, I proceeded on a tour of inspection through these Forests, accompanied by the Assistant in charge, Captain Hunter. The Forests were traversed from Korchat in the east to Kooderykote in the west, a distance of some forty miles. Vast clearings for Raggi have from time to time taken place in these Forests, and there is hardly a square mile where traces of the "Tukkul"* system may not be seen, but owing to the richness of the soil, and moisture of the climate, the Teak tree has, in most places, defied all efforts at extirpation. In some parts suckers from the old stoles, shooting up some fifty feet straight as a fir, may be counted by thousands. In other parts it is lamentable to see the destruction caused by Coorumbers; acres and acres of girdled Teak trees of every size, from the sapling six inches in diameter, to the noble tree upwards of three feet. It is the sale of these girdled trees, from which at present, we derive a revenue, and to clear out the Forests thoroughly, it will take at least three years, so numerous are the girdled trees. Very high prices have been realized for this dry Teak, as it is called, eight Annas a cubic foot, or on an average ten Rupees a tree, some of the trees being small, this rate may be considered, as very remunerative.

* Temporary clearing.

3. *Contractors.*—The only thing to be guarded against is fraud on the part of the Contractor, who readily signs a contract, to take away every tree squaring more than six inches, but contents himself with taking only the choicest trees, and leaving the indifferent ones, to the manifest loss of Government. On examining the proceedings of a Contractor, both in the Korchat and Kooderykote Forests, I speedily ascertained that he had helped himself to some of the finest green trees in the Forest, some I measured were fifty feet in length, squaring to fourteen inches, and if cut in two, worth 3 Rupees a cubic foot in the Mysore market. The amount of personal supervision required in a Forest, owing to the distances, is great, but absolutely necessary, as it is impossible to control a Contractor without it.

4. *System of Tukkul or temporary clearing.*—I am happy to report that the system of Tukkul or temporary clearing is on the decline in these Forests, we only found it in full operation in a few places. A complaint was speedily lodged against the parties and the system has, I would hope, received a check. In some places where Tukkul had been very extensively carried on, the Teak tree was quite extirpated, and a noxious growth of weeds and scrub jungle was all that was to be seen.

5. *Assistant to be a Magistrate.*—To render the Assistant in charge of these Forests, fully effective, I would recommend that he should have Magisterial powers, as Forest Officers in Jubbulpore, Pegu, and possess them. Captain Hunter in his report, points out that his hands would be much strengthened, if granted Magisterial powers, and as Coffee planters and others are to be made Magistrates, I think it would be much to the advantage of Government if the Forest Assistant was a Magistrate.

Appendix A.

6. The Hoonsoor Forest.—Whilst examining the Wynád Forests, I took the opportunity of examining the Hoonsoor Forest, which by an Order* of Government had been made over to this Department; but the Order for some reason has never been carried out.

* No. 577, 28th April 1859. R. D.

7. *Wasteful System pursued.*—The wasteful system of felling pursued by the Contractors who leave (tops of trees ten to fifteen feet in length, and squaring from ten inches to a foot) behind them, to be destroyed by fire, has already been reported to Government. The reckless system of Tukkul, more prevalent in this than the Wynád Forests, has also been detailed, and a project for placing and working the Wynád and Hoonsoor Forests under one Assistant, has been submitted to Government; unless speedy measures are adopted, this fine Forest will be ruined, or at least thrown back for years to come.

No 626, 20th March 1862. R.D.

No. 799, 9th April 1862. R.D.

8. *The advantage of a Ghat viâ Tamburcherry.*—The opening of the Tamburcherry Ghat will enable us to carry our timber to the coast at a cost of about 16 Rupees per ton. Whereas the present price of carriage is 50 Rupees. The price of timber on the coast is from 75 to 100 Rupees per ton, according to quality, and it would be very remunerative at even 75 Rupees a ton, or 1 Rupee, 8 Annas the cubic foot. We could fell and deliver the timber at 12 Annas the cubic foot, this would leave at least a profit of 12 Annas the cubic foot, but if only first class timber was sent to the coast, a greater profit would be realized; indeed, the timber could afford to pay a toll of 2½ Rupees the cart or 5 Rupees the ton, merely for using the Ghat; as without the Ghat, one of our principal markets would be closed to us.

9. *Boundaries.*—I regret to report that the boundaries of the different Government Forests have not yet been decided. The consequence is, that in many places we cannot work the Forests, and the Assistant is liable at any time to be involved in a law suit. It is very advisable that not only should the claims of the Devastanum people be settled, but boundaries clearly defined.

10. *Title to land.*—The priest of the ancient Tiromalli Pagoda, claims all the land in that part of the country, and just as I had arrived, made over his so-called claims to various Chetties, who at once began felling, in order to obtain a title, and when called upon to show their title deeds, would at once produce a smoked cadjan leaf, or bamboo, with the title ante-dated some fifty years, to prove the antiquity of their claims. I found the whole system of titles a chaos, it was impossible to say which was Government Forest land; a squatter actually claimed the whole of the Teak Forest of Koderykote, though he knew it had been worked by Government, years before he came there. No claim is too preposterous to be set up, and it is voluminously supported by basket loads of forged documents. Every day increases the evil, and the only remedy that I can suggest, would be the appointment of a Special Commissioner, well versed in Malabar tenures and the history of Wynád to proceed to the spot, and give a title, his decision to be beyond appeal. In this manner our Forest boundaries may be settled and the work of conservancy proceed.

11. *Grants of land.*—I had several applications for land, and it became necessary to draw a line, accordingly, the line of the Teak belt was chosen; all other land in Wynád, though there might be a considerable amount of Blackwood and Vengay on it, was given up, as a general rule. In the north of Wynád, just outside the Teak belt, there is a good deal of Blackwood; but unless we could fell it, and were prepared to remove it, I do not see the use of keeping out the pioneers of civilization, viz. the Coffee planters, for the sake of merely conserving timber we cannot make use of in any way.

12. *Financial condition.*—It will be seen from the returns that the expenses of conserving Wynád have been more than met by the receipts, and next year I anticipate a profit of at least 10,000 Rupees, if the Hoonsoor Forest is incorporated with the Wynád Forests and worked systematically. A grant of Rupees 5,000 has been sanctioned, which I have no doubt will be enough for the present.

13. *Teak a Royalty.*—Captain Hunter speaks of Teak being a Royalty, and I have already brought to the notice of Government the extreme value of the Teak Forests, and the little probability there is of the Devastanum people ever having been granted the right to cut Teak.

No. 844, 15th April 1862, R. D.

14. The settlement of the ownership of the 5,000 logs of Teak mentioned by Captain Hunter is much required, I myself saw many hundred logs at Kakencottah, which had been passed across the river, (after the order to prevent carrying of Teak out of the Forests had been issued) in order that the owners might say it had not been cut in Government Forests.

Appendix A.

15. Mudamallai Forests.—I have visited this Forest three times during the past year, the working of the Forest has been energetically carried on. The Bangalore Barracks, Railway, Neilgherry Barracks, Jail, and other works have been supplied with timber, whilst large Depôts containing 90,000 cubic feet of timber, have been formed at Sawyers village and Tippacadoo, by Captain Gib.

16. *Appendix B.*—I do not think from what I saw that much Teak fit for felling will be left in the Forest by March 1863; at my last visit we were cutting on the borders of the Wynád Forests. As the boundary line was not clearly defined, there was some doubt, and I stopt the felling in that direction, and requested Captain Hunter in charge of the Wynád Forests to have the boundary line defined as early as possible, it was supposed to be clearly known to the Adigarie of the Monenad Umshum, but to no one else.

17. *Financial Results.*—It will be seen from Appendix B, that the expenditure is more than equalled by the receipts, whilst a large quantity of seasoned timber has been collected, so as to be available for any Public Works, either at Bangalore or the Neilgherries.

Expenditure Rs..... 37,474
Receipts "... ,, ... 37,936

The Lawrence Asylum alone will require some 30,000 Rupees of wood this year, and possibly the Bangalore Barracks and Railway, nearly an equal amount.

18. *Stock of wood on hand.*—The value of wood on hand on the 1st of May 1862 is Rupees 1,31,211-0-6 against on 1st May 1861, Rupees 99,492-4-0, which leaves a balance in favor of the Forest of Rupees 31,718-12-6, besides the value of the plant purchased during the year. Very valuable assistance has been afforded by the Manager Kistnapah.

19. Sigúr Forest.—I have visited this Forest during the past year, the Teak is strictly conserved, but no operations in Teak or Vengay have been carried on during the past year.

20. *Waste land.*—Large demands for waste lands in this Forest have been made under the new Act, and much difficulty in meeting the demands is felt. Where all the finest trees grow, there the Coffee planter selects his ground, and to reserve all would perhaps check Coffee planting too much, still some medium must be observed, to give away land which produces Teak and Vengay trees, worth squared from six to twelve Annas a cubic foot on the spot, would be ruinous to the interests of Government. I think Teak might be reserved and Vengay or other woods if sold, should pay a seignorage of one Rupee per cart load.

It has been ruled that, where there are valuable trees, parties desiring the land should purchase them standing, at their value, and this seems a fair rule; still, under these conditions, I do not think much land would be taken up.

E. M C., No. 1,086, 5th August 1858, para. 22. Cleghorn's Forests p. 30.

21. *Financial results, Appendix C.*—The results of working the Sigúr Sandal-wood jungles are, according to Captain Gib, nearly twenty thousand Rupees, of course the profit would have been less, if a portion of the supervision had been charged. The great amount of Mudamallai wood in Depôt relieves the Sigúr Forest much, as it requires rest, owing to Contractors in former years, having taken out nearly every Teak tree fit to be cut.

22. *Future proceedings.*—The work of Sandal-wood cutting is still proceeding, and a large range of country remains untouched, for years to come an annual profit of Rupees 20,000 may be expected from these jungles. Want of labor in the direction of Hassanoor, whither our works tend, will prevent our realizing a larger sum than the above. The jungles are but thinly inhabited and very unhealthy. Local labor is not readily procured.

23. South Canara.—These Forests have hitherto been worked on the stump-fee system, but this year a sum has been sanctioned, to enable the Forest Department, to fell and bring to the Depôt, Teak, Poon, and other timber.

24. *Stump-fee system.*—The system of stump-fees is not remunerative, especially when Government has a small Establishment to look after the work; for instance, trees containing 40 cubic feet of Teak, were frequently sold at Nellumbore for a stump-fee of ten Rupees, or four Annas the cubic foot; if we had felled these trees and dragged them to a Depôt, we should have obtained

nearly 80 Rupees each for them, if the outlay for felling and dragging, say ten Rupees is deducted, we should, instead of ten Rupees, have made a profit of from 60 to 70 Rupees.

25. *Appendix D.*—It will be observed from Overseer Thompson's report that the greater part of the Forests require rest, and the Overseer's time is principally taken up in training young trees of Teak and Blackwood.

26. *Systematic working.*—There are many parts that might be worked with profit, and it was my intention this year, to have gone thoroughly into the subject, and recommended (if found practicable) the formation of a regular Establishment for the systematic working of the jungles; this plan always being more profitable than the stump-fee system, where there are valuable trees.

27. *Financial Results.*—The financial returns more than cover the cost of conservancy, and I have no doubt that in course of time, these jungles will not only be recovering under conservancy, but will also yield a fair revenue.

28. NEILGHERRY SHOLAHS.—I have inspected the woods several times in the past year, preparations for re-planting the Governor's Sholah have been made; several thousand pits have been dug, and the young plants are ready to be put in with the first rains. Those planted out last year are doing well.

29. *Firewood Contractor.*—The case of the firewood Contractors, Wilson and Co., who threw up their contract at the end of the year, has been reported to Government, and is still under investigation.

No. 718, 1st April 1862 R. D.

30. *New leases of land.*—In all cases where the making over of Forest land to parties has been referred to me by the Collector, I have always recommended, that a fee of one Rupee per bandy load, should be levied by the Forest Department, in the event of the landholder, selling the wood off the estate, and that the land should only be granted on these terms.

31. *Financial results.*—The returns show a fair amount realized by the sale of Sholas,* but unfortunately the cost of the supervision, is out of all proportion to the returns; a proposition† has been submitted to Government, to place the Neilgherry Sholahs under the Officer in charge of Mudamalli and Sigúr Forests, and thus save the Budget a sum of more than ten thousand Rupees, this project not having been sanctioned by Government, it was proposed to place the Nellumbore Teak plantations under the Officer in charge of the Sholahs, the matter is still under reference. Considering how very small the returns are, it is a question, if the Nellumbore plantations and Neilgherry Sholahs can at present bear the salary of even Rupees 600 a month, as recommended by me in a former letter.

* Major Babington's Report, Appendix E, Rs. 6,245-9-5.

† No 209, 5th Feby. 1862. R. D

No. 170, 1st Feby. 1862. R. D.

No. 1067, 15th May 1862. R. D.

32. WELLINGTON FIREWOOD PLANTATIONS.—I have twice inspected these plantations in the past year, and consider that they now wear a slightly improved aspect, but the cost of planting is out of all proportion to the results obtained. Major Babington gives the total money expended at Rupees 12,617-0-7, and if we add Overseer Hall's pay for four years at 1,000 Rupees a year, then the total expended is nearly seventeen thousand Rupees, over about 100 acres, or the cost is 170 Rupees an acre, or just three times what it ought to have been. Grass land can be laid out in trenches two feet deep and one foot wide for 30 Rupees the acre, to rear the plants, put them out, and supervise them, 30 Rupees is ample; thus 60 Rupees an acre is an outside cost, and would include roads, ditches, tools, &c., thus one hundred acres should have cost 6,000 Rupees instead of 17,000 Rupees.

Cost of planting, Appendix F.

33. *Future system of planting.*—I have ordered that trenches for the future should be the only system, and have selected an excellent site to commence upon. The estimate for planting an acre of grass or scrub jungle land, is as follows.

5,500 running feet of trenches 2′×1′ at 5 Rs. per 1,000 feet, is Rupees				27	8	0
1,000 Plants of Acacia stricta	...	...	...	10	0	0
Filling in trenches	...	...	...	5	0	0
Planting	...	...	...	1	0	0
Paths, tools, sundries	...	...	...	10	0	0
				53	8	0
Supervision.....				6	8	0
Total Rupees.....				60	0	0

34. In justice to Overseer Hall, I must say that the old system was not his, nor is he responsible for the planting attempts made on soil, that would not even grow grass, much less trees.

35. *Financial results.*—In course of time there may be a demand for the thinnings, but up to this there has been no inquiry for poles, and the firewood will not be fit for the market for some time to come; under the new system the cost will be but one third, and the progress of the trees three times as great as in the old pit system, thus finally the plantations may become remunerative.

26. CINCHONA EXPERIMENT.—*Preliminary remarks.*—Having been called upon to report periodically on the Cinchona experiment, now being conducted by Mr. McIvor* of the Government Gardens, Ootacamund, I take this opportunity of reviewing and reporting upon the experiment from the commencement up to the present date.

No. 2244, 30th November 1861. R. D.

In the year 1859, the Secretary of State ordered the Conservator of Forests in conjunction with Mr. McIvor to select suitable localities for the reception of certain Cinchona plants shortly expected from England. A site at Neddiwattum was selected and in October 1860, Mr. McIvor received charge of certain Cinchona plants from Mr. Markham, these plants being sickly at the time of their arrival, all died; but fortunately Mr. Cross arrived shortly afterwards with 463 plants of the *C. succirubra*, and 6 *C. Calisaya* plants. A liberal supply of *succirubra* and other varieties of *Cinchona* seeds were also received at this time.

Vide letter from Secretary of State, No. 21, 9th June 1859, recorded in Proceedings of Government, No. 1,072, 14th July 1859. P D.

The experiment seemed now to be progressing favorably under the able management of Mr. McIvor, when an order was issued by Government (on the representations of Dr. McPherson who had visited the Java Cinchona plantations) that all operations in the Government Gardens at Ootacamund should be put a stop to, and the plants and seeds taken to Neddiwattum and Dr. McPherson's Java plans carried out.

No. 552, 9th March 1861, para. 5. R. D.

Fortunately for the success of the experiment both Mr. McIvor and myself had strong doubts regarding the value of the Java mode of cultivation, and as both Mr. McIvor and myself had for many years enjoyed practical experience in Arboriculture on these hills, and were moreover acquainted with first principles, (which were certainly not embodied in the Java mode of cultivation) we were in a position to show Government that our plans were safe and worthy of trial. Government accordingly adopted them, and the experiment as far as it has gone, fully justifies the expectations formed. At the same time, however, consequent upon Mr. McIvor's representations, regarding the interference he had already been subjected to, and lest the success of the experiment should be endangered by further interference, he solicited, and obtained, entire freedom of action in his experiment, and I was simply to act as observer and reporter.

Vide Mr. McIvor's letter to Government, No. 59, 9th May 1861, recorded in Proceedings of Government, No. 1,328, 3rd July 1861. R. D.

37. *Firewood.*—It is satisfactory to know that as we have to replant woods and supply the hills with firewood, that after the Cinchona trees are stripped of their bark, the trunks (Vide Mr. Spruce's Report, pages 23 and 24) will afford an excellent firewood and thus a matter which has given rise to much trouble, will be at once set at rest for ever.

38. *Elevation and sites.*—It is a fact worthy of note that Mr. Spruce, page 28, states that the highest growing *succirubra*, (4,500 feet) gave more bark than those grown at a lower elevation, and the value of the bark of this tree at Guayaquil was nearly 800 Rupees. Again page 27, "in "cutting down trees in hot plains, I have often been struck with the thinness of the bark compared "to that of trees growing in *temperate climes*." Again, "the greater the height at which the "tree grows, the larger is the proportion of alkaloids contained in the bark." page 33.

39. *The Dutch failure.*—The Dutch in Java have planted out about 500,000 plants of the *C. Lucumæfolia*, or *Pahudiana*, these at 25 feet* apart will cover the enormous area of ten square miles, and we are told that the Dutch have achieved great success (by Dr. McPherson and others), yet on inquiry it turns out that Howard the great Quinine Manufacturer, can find Quinine in neither root nor bark of the *C. Lucumæfolia* or

* Dr. Junghuhn, page 23.

Pahudiana. This stupendous blunder of the Dutch is without parallel in the history of Arboriculture, and, as if this blunder was not sufficient, we are called upon to imitate the falacious mode of culture adopted by the Dutch in Java, viz., dense shade, and an absurd system of placing single seeds in bamboo pots. It is unfortunate that we are not in a position to know the cost of supervision, &c. per acre of Dutch planting; it would probably be found as expensive and equally futile as the rest of their arrangements. Howard, page 3, gives no hope of *C. Pahudiana* or *Lucumæfolia*, ever yielding Quinine, but Drs. Anderson and Junghuhn are more sanguine. Again at page 5 Howard in his great work "Illustrations of the Nueva Quinologia of Pavon" whilst their *Calisaya* "bark yields more than three per cent. of Quinine, this plant under the same conditions does not "yield half per cent."

40. *Sites*—In page 13 paragraph 3, Dr. Anderson writes "In the 1st instance from there "being no one on the Neilgherries who could point out the sites on those mountains best "adapted for receiving the plants, and thus they were considered to be safer under the pro- "tection of a glass-house." There is a serious error here. The proper sites were well known and settled long before a plant arrived. Placing the plants in the glass-house was done purposely to acclimatise them, and we should have been foolish indeed to plant them out at once. Again in paragraph 4 page, 14. Dr. Anderson says. "The great *difference** that "exists between the climates of the South American Cinchona Forests and "the Neilgherries ought to have received greater attention than it has, and "in the selection of sites, convenience of access from Ootacamund should "have been made subservient to the greater consideration of climate." I have studied the climate of these hills for seventeen years. I have introduced at various elevations plants from all parts of the world, from Japan, California, China, Jamaica, Australia, &c., &c., and am informed that the matter of sites has not been properly considered! Again in paragraph 7, regarding climate, Dr. Anderson is entirely mistaken. As for dryness I can only say that in January and February I was on each occasion wet through in visiting a forest which I had selected as a site for a Cinchona plantation, and though we have one or two dry months in the year, as a rule, anywhere south or west of Otacamund, the climate is humid to a degree.† At page 23, para. 16, Dr. Anderson has fallen into the same error as the Dutch, and speaks of the "shady moist woods of the mountain" as the *sine qua non* for *C. Micrantha.* It is a fact as proved by Mr. Spruce that the more shady the place the worse the bark, and the tree never flowers; page, 23. I have observed Orchids which grew luxuriantly in dense shola, but never flowered, the same kind exposed to sunshine. at a few hundred yards distance flowered in perfection. At page 10 para. 9 Dr. Anderson tells us that the plants at Tjibodas "from exposure *to the sun and air* are mere leafy bushes 10 or 15 feet in height," but Dr. Junghuhn page 15, tells us that the cause of this failure was "1st they were *too low and too hot*; 2d, they are, or rather were, shoved as it were into "spanish boots, that is, with their roots in thin, *half foot thick earth*, right above a *ledge of rocks*. In answer to paragraph 12 page 11 of Dr. Anderson's report, I can only again repeat what I said in my former report, that "a good practical gardener would have done more for them", and their gigantic failure would have been avoided.

Mr. Spruce page 23, speaking of the Red Bark says, "It is far more abundant on their "*northern* than on their *southern* slope, nor did I see a single tree with flowers or fruit in a "*southern* aspect. The northern and eastern sides of the trees themselves had borne most flowers, "and, except on one tree of more *open growth* than the rest, scarcely a capsule ripened on their "southern and western sides. These phenomena are explained by the facts that, in the summer "season, the trees receive most sun from the east and north, for the mornings are generally "clear and sunny, whilst the afternoons are almost invariably foggy, and the sun's declination "is northerly. Another notable circumstance is that the trees standing *in open ground*-pasture, "cane-field, &c.—are far healthier and more luxuriant than those growing in the forest, where they "are hemmed in and *partially shaded* by other trees, and that, while many of the former had "flowered freely, the latter were, without exception, sterile. This plainly shows that, although "the Red Bark may need shade whilst young and tender, it *really requires* (like most trees) plenty "of air, light, and room, wherein to develope its proportions."

* Vide Mr. Cross page 5. The climate is certainly very similar to that of the Neilgherries.

† Mr. Cross page 5. "The climate is certainly "very similar to that of the "Neilgherries, but the al- "luvial deposit is shal- "low."

41. *Temperature.*—Mr. Spruce at 2,800 feet elevation ascertained the mean temperature to be 68°, therefore it may fairly be assumed that at 5,000 feet the elevation at which the Red Bark grows best, the mean temperature was probably 58°, as I have observed on these hills, that the mean temperature is 5 degrees for every 1,000 feet of elevation, thus Ootacamund is 56° and Kulhutty, 2,000 feet lower, is 66°. The same remark will apply to the nursery at Neddiwattem which at 5,400 feet will nearly equal the temperature best suited to the *succirubra*, viz 64°; the plantation site at 6,000 feet would then be 61°, an extremely favourable temperature for developing alkaloid. As for *C. succirubra* being a tropical tree, (Page 22 Page 14, Dr. Anderson) I know many spots on the Hills, where palms such as, *Calameæ* grow at 6,600 feet or 600 feet above the elevation of the Neddiwattem plantation.* I would also here observe that *Cinchonas* are neither to be planted in swamps nor on bare hills, but in protected ravines which are always 5° warmer than plains and 10° warmer than swamps, and that we do not require to know the degree of cold in a *swamp* vide Dr. Anderson.

* Mr. Cross page 2, found *C. succirubra* up to 9,000 feet elevation.

42. *Value of Bark and age of Trees.*—The value of the bark of the tree mentioned by Mr. Spruce as having been cut at 4,500 feet was nearly 800 Rupees and two trees, shoots from old stools, (Page 31 foot note) were calculated to yield at fifteen years of age two quintals each of bark which at 43 dollars the quintal is equal to 172 Rupees each, but the Dutch, vide Dr. Anderson's report page 10, paragraph 9, "do not expect *C. Pahudiana* to yield bark of any value under fifty years," (if it ever yields at all) of this kind they have nearly ten square miles. This is indeed a contrast!

43. *Rain-fall.*—Dr. Anderson has quoted our rain-fall at 48 inches and seems to infer that the whole of this amount falls within six months. The rain-fall in woods south or west of Ootacamund is nearer 80 inches and distributed over ten months of the year. For weeks together we have a driving mist and perhaps not a quarter of an inch of rain per diem. In the west of Ireland where it rains for more than 300 days in the year, the rain-fall is not much more than 36 inches, and the climate very moist. It has been ascertained that the greatest rain-fall on mountains takes place in a zone at an elevation of from 4 to 5,500 feet or just the elevation where the *C. succirubra* was found on Chimborazo, it is therefore satisfactory to know that the *Cinchonas* growing from 6 to 10,000 feet elevation, do not obtain the same amount of rain as those growing lower, consequently the amount of rainfall necessary for *C. nitida, Condaminea* and others, would fall far short of that required by the lower growing *C. succirubra.*

44. *Conclusion.*—From the above remarks it is clear that if we obtain certain conditions, the *C. succirubra* will be a success.

I. If the mean temperature at 5,000 feet elevation on Chimborazo is nearly 61°, and the mean temperature of the plantation at Neddiwattem is the same, then the condition of temperature is satisfactorily established and, I think, I have proved that it is likely to be so.

II. If the plants at the elevation of 6,000 feet grow well, then it matters not if the rainfall is 80 or 150 inches, (though, I believe, the latter is nearer the mark,) and we shall have secured what is indispensable to the production of Quinine, viz. *elevation.*

III. The planting of trees in open tracts in the Forest is, I consider, indispensable to the production of healthy bark, indeed, no one conversant with first principles could argue otherwise.

IV. The success of *C. succirubra* established, that of *C. Calisaya, Condaminea, Micrantha, Peruviana* &c., must follow.

V. Exception has been taken to garden cultivation for Cinchonas, I would ask why is the Cinnamon tree cultivated? Why is the soil dug and aërated? The Cinnamon tree is cultivated for its bark, the tree in dense shade and damp woods at Neddiwattem and elsewhere grows to a large size, but art, combined with nature, produces a finer article of commerce than nature alone. It is not so much the size of the tree as the amount of alkaloid contained in the bark that we require; and to produce this, we plant Cinchona as we would Coffee, Tea, Cinnamon or spices. I have already shown that the Sandal tree grown in shady moist ravines produces no fine scented heart-wood, but grown in the open, the heart wood is very superior. The like successful result will take place if the Cinchona is properly treated.

VI. From Mr. Cross' report just received, it is very satisfactory to know that he approves of the sites selected on these Hills, more especially, as he is the only practical man who has examined the sites here and those on the Andes where the best varieties of Cinchona grow.

45. *Nursery at Neddiwattem.*—On the 30th of April last, I inspected the Cinchona sites at Neddiwattem, the plants in the Nursery at an elevation of 5,400 feet were looking remarkably well, and are from 12 to 15 inches in height; they consist of 500 *C. succirubra, Micrantha* and *Peruviana.* At present only four beds are filled, but shortly some fifty beds capable of holding about 50,000 plants will be ready. The site of the Nursery is well chosen, the soil is a rich brown loam, and the aspect is north. Some 3,000 plants have since been sent out.

46. *Upper plantation.*—Seventy acres have been felled and burnt, and about 5,000 running feet of trenches 2′ × 1½′ have been dug. It will be advisable to have catch drains with silt traps on both faces of the plantation; otherwise, the rush of the storm waters will infallibly denude the plantation of the whole of the surface soil. As the sides of the ravine in which the plantation is situated, are rather steep, it will be necessary to leave one trench in ten open to serve as a catch drain, with silt traps at one hundred feet intervals, the traps may be 10′×4′ ×4′, when filled, the contents should at once be removed and spread round the roots of the trees; in this manner an efficient system of manuring can be kept up. Mr. McIvor, has very properly dug his trenches at right angles to the slope of the hill, this method will greatly prevent a rush of water. From an acre of cleared land on a steep slope, I have taken after a heavy shower as much as three cubic yards of silt.

47. *Elevation.*—The greatest elevation of this plantation is 5,900 feet, it faces the north, the surface soil is excellent, the sub-soil consists of decomposing gneiss boulders.

48. *Plants.*—I examined some plants of *C. succirubra* and others which had been put out in November last; all that I saw were healthy, and one *succirubra* reported to be 9′ when planted out, is now twenty-five inches in height and very healthy; this is encouraging, when it is considered that the plants were delicate when first put out, and have only just weathered the most unfavorable part of the year, and at an elevation of 5,900 feet.

49. *Overseers' houses.*—Very little has yet been done for the Overseers' houses, want of labor has been Mr. McIvor's great difficulty; bricks are ready, a site prepared, and a branch-road made. It would have tended to expedite the building of these houses, if they had been made over to the Department Public Works, as they had labor on the spot, in fact had just repaired the public Bungalow. Instead of tiles, it would be well if galvanised iron was substitued, as unless the tiles are dipped in coal tar, they soon accumulate moss in this damp climate.

50. *Cooly lines and Store house.*—A small thatched hut for the Overseer in charge of the Nursery is finished, a temporary Store-house and Cooly-lines have been run up; but it is very important, that as soon as possible substantial brick in mud lines be built; otherwise, from being badly housed the Coolies may get sick and leave. The Store house for grain should be of brick in chunam with asphalted floor.

51. *Glass-house.*—A glass-house for the propagation of the plants is much required, at present the cost of carriage cannot be under half an Anna a plant, or on a hundred thousand it will amount to 3,000 Rupees, enough to build two glass-houses. There is also some risk of damage to the plants in their carriage from Ootacamund to this; the plants can also be propagated more quickly under glass than in the nursery, and will be less liable to damage from hail, &c.

52. *Fencing.*—The best fence for the plantation would be a ditch three feet wide at top and one at bottom, and three feet deep, with a stout fence on the top four feet high; this would last for years, and be cheaper than anything I know. A wall was proposed but it would take too long to build, and be very expensive; a wall six feet high of brick in mud, could not be built out here under 3 Rupees the running yard, then 100 acres require 3,000 running yards or 9,000 Rupees; whereas a ditch 3′×3′×2′ would cost per running yard 2 Annas and 2 Annas for the fence equal 4 Annas, or Rupees 720 against Rupees 9,000 for the wall. Rose cuttings may be planted on the loose soil taken out of the ditch, and before the fence decays will form an impenetrable barrier.

53. *Ootacamund plantation.*—A sholah containing about 40 acres has been partially trenched and filled, the situation is excellent, well protected, and the generality of the soil is a rich black mould. I have recommended Mr. McIvor to have catch-drains and silt traps, as some of the ground is very steep. Mr. McIvor has very properly trenched nearly the whole of the ground, this, I

know from practical experience to be the best plan, as it gives the plants a start of at least two years over those in pits. I have myself tried *Eucalypti* in pits and trenches on grass land, the trees in the latter, are certainly three years in advance of those in pits. The great secret is to give the plant a start the first year, after that it can take care of itself.

The trees in this plantation have in some places been left, so that the effect of partial shade may be tested. Not that Mr. McIvor is not fully confident of success in following the plan of cuting awayt everything, but he has determined to try both plans.

I have tried both plans with *Eucalypti* and have found the trees grew as fast again where there was no shade. In fact the shade from large trees, makes the young trees tender and unhealthy.

54. *Propagating House.*—An excellent propagating house has been built by Mr. McIvor on the newest system, with bottom heat, and from this and a lower house some 12,000 plants are turned out monthly, the success in propagating the plants has been extraordinary, and reflects the highest credit on Mr. McIvor's skill and perseverance, for it required no ordinary care to obtain such success as he has. The Cinchona plant is very delicate in its first stages, requiring immense watchfulness, but hardy enough when a year old. The lower glass-houses are full of plants in all stages, from the delicate seedling, to the large plants brought by Mr. Cross, two of which will probably seed next year.

55. *Seeds.*—Seeds of the *C. Condaminea* have lately been received from Mr. Cross, and have germinated with hardly a failure; they are now coming up by thousands, this plant is eminently suited for the Dodabetta site. A variety *C. Crespilla* which curiously enough Mr. Cross found on mountains with peaty soil, is also germinating, and will apparently suit our black peaty soil, which abounds in many parts of the grass land of these Hills.

56. *Trees planted out in the Ootacamund Garden.*—Mr McIvor as an experiment, put out last September six *succirubra* plants, they have not grown much, as the season has been unfavorable, but they are now beginning to push their leaves, under the influence of the prevailing showers, they are perfectly healthy, and will soon increase in size, the large leaves, suffered a little from the unprecedented violent hail storms; the general health of the plant was uninjured.

57. *Overseers Houses, &c.*—An excellent bungalow adjoining the propagating house has been built by McIvor, for the Overseer in charge, and a bungalow for the Overseer in charge of the upper plantation is nearly finished, as also substantial buildings for his gardeners.

58. *Number of Plants.*—There are 1,200 large plants, from which small plants are constantly being propagated, the rest consist of seedlings and rooted cuttings. A memorandum of the plants, furnished by Mr. McIvor, is appended. The total number is 31,495.

Report on the number and condition of the Cinchona Plants in cultivation on the Neilgherries on the 30th April 1862.

	Botanical Names.	Commercial Names.	No. of Plants.	Value in the London market per lb. of dry Bark.
				s. *d.* *s.* *d.*
1.	Cinchonæ succirubra.....	Red bark ...	14,450	2 6 to 8 9
2.	,, Calisaya.....	Yellow bark ...	237	2 10 to 7 0
3.	,, Condaminea *var.* Uritusinga. ...	Original Loxa bark.	1	2 10 to 7 0
4.	,, ,, *var.* Chahuarguera.	Rusty crown bark ...	8,000	2 10 to 7 0
5.	,, ,, *var.* Crespilla.....	Fine crown bark ...	105	2 10 to 6 0
6.	,, Lancifolia from Java.....	Crown bark ...	1	1 8 to 2 10
7.	,, Nitida.....	Genuine grey bark...	2,922	1 8 to 2 9
8.	,, Species without name.....	Fine grey bark ...	1,211	1 8 to 2 10
9.	,, Micrantha.....	Grey bark.	3,786	1 8 to 2 9
10.	,, Peruviana.....	Finest grey bark.....	357	1 8 to 2 10
11.	,, Pahudiana from Java...	Unknown... ...	425	Worthless...
		Total number of Plants.....	31,495	

Remarks.—The whole of the plants are in the finest possible state of health, with the exception of *C. Lancifolia* and and *C. Chahuarguera.* Our plants in the open air, within the last two months in rapidity of growth, general health and luxuriance, having much exceeded those in our glass-houses.

The *C. Lancifolia* lately imported from Java, being affected by fungi at the roots, it is doubtful if we will be able to save it. As several cuttings of this sort although successfully rooted, the fungi, which apparently spreads along the pith, has attacked these rooted cuttings and killed them. The *C. Chahuarguera*, only lately imported, has suffered much during the voyage, the whole of the leaves and part of the young shoots having been dried up, still, as it seems not to have contracted any disease, I hope it will recover.

In the portion of our Nurseries under the protection of the shade of living trees, layers made in this position on the 3rd of January, were found not to have rooted on the 27th of April, while layers made at the same time in the open sunshine were found rooted by the end of the same month or in 28 days. The growth under the shade has also been unsatisfactory, not having in any case exceeded 4 inches in the last two months, while in the same period many hundreds of the plants in the open ground have grown from 12 to 16 inches. Nothing can exceed the luxuriance and bright healthy look of the leaves in the open sunshine, while the leaves on the plants under the shade are pale and covered with small hairs.

The six plants were placed out on the highest and coldest part of the Neddiwattum site at the end of September 1861—their height being as follows.

	Height when planted out 29th September 1861.		Height on the 14th May 1862.	
No. 1, C. succirubra red bark.....	9	inches.	2 feet	5 inches.
„ 2, do.	4	„	2 „	3 „
„ 3, C. Micrantha	3¼	„	1 „	4 „
„ 4, do.	3	„	1 „	4 „
„ 5, C. Nitida	3½	„	1 „	7 „
„ 6, do.	3	„	1 „	6 „

(Signed) W. G. McIVOR,
Supt. Govt. Cinchona Plantations.

59. ANAMALLAI FORESTS.—I visited these Forests in July and November last year, on my first visit, there was no officer to give me information on any point, Captain Brine being on sick leave. I was therefore compelled to open the season, engage axemen, and superintend the general duties of the forest, myself. The head Overseer Lennon I found was either unable or unwilling to give me all the information required.

No Officer in charge.

60. In August Lieutenant Ouchterlony joined and would no doubt have worked out the estimate for 3,000 planks if he had received proper assistance from his Overseers. As it was he cut 1,799 planks against 1,100 planks of the previous year. In my annual report for 1860-61, I was induced to expect a favourable result this year, from Captain Brine having reported that he had cut and *slipped*, 1,345 planks, and that the whole were being rapidly carted away to Mungarah. On enquiry I found that Captain Brine had not cut more than 1,100 planks, of this number as late as the end of July, 100 were still at the head of the slip and 200 in the forest.

Lieutenant Ouchterlony appointed.

Appendix A. Annual report 1860-61.

61. The estimate by Captain Beddome was for 1,500 planks, a very small amount of work for the season; but even this amount of work fell short by nearly a third and finally from Captain Brine's Report it appears that only 669 planks reached the Depot at Punani and realized the very small sum of Rupees 18,086-14-6, though the previous year's planks realized nearly a fourth more, thus showing a want of care in the preparation of the planks. As the inferior planks cut by Captain Beddome were 92, those cut by Captain Brine 192.

Appendix A. Annual Report. 1860-61.

Appendix G. Annual Report 1861-62.

Appendix G.
Planks 656=23,698 Rs.
Do. 669 =18,086-14-6

62. *Financial results.*—The expense of preparing these planks or rather the outlay for the receipts of the year, must be taken as follows, to arrive at a fair approximation of the cost.

	Rs.	A.	P.
Expenditure in 1860-61 under Captain Brine.	29,911	15	11
Receipts for 1861-62...	18,086	14	6
Deficient Rupees...	11,825	1	5

Deduct from this other wood, and value of planks and logs in Forest, (the year's work is erroneously stated by Captain Brine to be worth 86,470 Rupees) gives as follows:—

Appendix A. Annual Report 1860-61.

Sales of planks	18,086	14	6
Other sales	4,003	11	7
Value of 450 planks, not delivered, at 16 Rupees per plank ...	7,200	0	0
245 Heads and Butts at 10 Rupees	2,450	0	0
Total Rupees...	31,740	10	1
Balance in favor of Forest.....	1,838	10	2

This is a very poor result from our best Forest, and one possessing an excellent market, first class planks fetching 2-14-3 per cubic foot, and average timber 2 Rupees.

63. *Causes of failure.*—The causes of the great falling off in the Anamallai profits are as follows:—

I. When Captain Brine took charge in September 1860, he was perfectly new to Forest work, and moreover was very liable to fever. The Anamallais require an Officer of robust constitution and skilled in Forest operations.

II. I found that the Forest establishment, were frequently employed in cutting, dragging, carting and slipping Vengay and other jungle woods, which produced 4 Annas a cubic foot, or in other words a dead loss, as a Contractor refused to deposit Vengay at the foot of the slip under 4 Annas, 6 Pice the cubic foot. As it costs as much to fell, square, drag, cart and slip Vengay as Teak, which all round is worth 1-8-0 the cubic foot, it is apparent, when Vengay only produces 4 Annas the cubic foot and Teak 1-8-0, that we lose on every cubic foot 1-4-0. I have forbidden the cutting of any wood but Teak and Blackwood, which are alone remunerative. In June last, the monthly report of operations stated, that the Elephants had been employed during the month in slipping Vengay for a Contractor of the name of Bake, this at a time when 3 or 400 of Captain Brine's Dockyard planks, were lying at the top of the slip and in the Forest. No wonder the elephants are not considered sufficient for the work. A quantity of Ven-Teak and Vella Naga was pointed out to me lying at the foot of the slip, it was not worth and will not realize four Annas a cubic foot, and yet it cost us fully that.

III. There are no branch roads in the Forest, hence the dragging is much increased.

IV. There are no carts or bullocks; in Mudumallai Forest, there are generally twenty carts working, this is a check upon the Contractors. Anamallai Forest should have the same.

V. There are no Coolie lines, provision stores, proper Offices, or Bungalows of any kind, the situation of Tunacadavoo is very bad, dense jungle all round, and the place a very focus of miasma. All this should be altered, proper Bungalows, with glass-windows and brick-walls should be erected on a hill near the cart road, a good Office with lines should be built, a Store house with asphalted floor, and galvanised iron-tiled roof should be erected, and everything done to make the place comfortable and cheerful, instead of gloomy and unhealthy. I pointed out a spot where a well should be dug, in case of water failing in the dry season. If all these improvements were made, Natives would not entertain so great a dread, of the Anamallais, and labour would increase. That the Anamallais are unhealthy cannot be doubted, but matters are rather exaggerated, I was up there as late as the 23rd of November, and amongst some eighty people at work, consisting of axemen, cartmen, elephant men and others, I only saw one man suffering from fever.

VI. The slip I found was but the rocky bed of a water course, I gave a plan for its thorough drainage, and repair.

VII. There are a number of Teak trees in the Forest that will not split into planks, from the twist in the grain, but would make excellent logs. I recommended that these should be felled and squared, as the Railway is now open they might be carried to Madras, Salem, and elsewhere, at a profit. There are also a number of axemen obtainable who are not skilful enough to split planks, but are quite able to square logs, these men might be profitably employed on the above work.

VIII. Want of personal supervision on the part of Captain Brine is another cause, had he supervised his work or had he even been acquainted with his accounts, he could not have

reported 1,345 planks as cut and slipped. Personal supervision would have told him, they were not at the bottom of the slip, and by his books, he might have ascertained, that they had never been cut.

IX. It has been the custom for the Superintendent to visit the Forest only from July to November, I think it would be better if he made Coimbatore his Head-Quarters, and visited the Forest every month from June to February. As during these months, work in the Forest is always going on. Merely to see the work between July and November is not sufficient, the principal carting work above the slip, does not commence before December, in fact most of the work is done in December, January and February. Axemen cutting planks up to the end of February.*

* Appendix A. Annual Report 1860-61.

64. *Travelling allowance.*—The Superintendent should draw 5 Rupees a day travelling allowance, when marching, the extra amount of supervision would more than repay the outlay.

65. *Supervision cost of.*—The average cost of supervision for the Anamallais is 10,000 Rs. per annum so that if even 40,000 cubic feet of timber are cut, the supervision amounts to the large sum of 1 Annas a cubic foot; but in Captain Brine's year only 18,000 cubic feet were cut, the supervision actually amounted to more than eight (8) Annas a cubic foot, the supervision on the Anamallais should never exceed 3 Annas a cubic foot, or for ten thousand Rupees, some 53,000 cubic feet of planks and logs should be turned out. It will be seen from the abve approximate data which are nearly correct, how much may be saved or wasted by a Superintendent.

1,100 planks	× 13 =	14,300 logs.
245	× 16 =	3,920
Total C. feet...		18,220

66. *Anamallai profits.*—The profit for 1858-59 of the Anamallais, was 45,173 Rupees, not Rupees 2,43,468 as erroneously entered in the report for the year 1859-60; how the mistake arose I cannot say, but in looking over the Central Office accounts, I found that the profits of the Anamallais for three years, instead of one year, had been entered. This reduces the real profit of 1858 and 1859 to Rupees 1,98,294, against Rupees 1,83,732 for 1859-60, or a falling off of Rupees 14,562, entirely due to the Anamallais; the receipts from the other Forests, having rather increased than diminished, with the exception of Mudumallai, where a great outlay had been incurred to store the timber against any future demand. I have been induced to correct this mistake at this late date, lest Government should think that there had been a great falling off in the receipts.

67. Madura Forests.—From Mr. Sperschneider's report, it will be seen that, there is an improvement in the revenue, as I anticipated, and this year I intended to have fully explored the Cumbum valley and Palatoor Sandalwood jungles, and to have organized a small but efficient establishment for working these Forests. The demand for Vengay and other woods being considerable, I have no doubt, but that a fair revenue would in course of time be realized. The receipts of this year exceed the expenditure. In paragraph 6, Mr. Sperschneider is of opinion, that to work the Forests ourselves, is the best both as regards "Revenue and Conservancy," provided there is a market. I agree with him.

Appendix H.

68. Cuddapah and North Arcot Forests.—From the returns received, the receipts exceed the cost of conservancy, but fall far short of what they ought to be. If Government accede to my request to equalize the rate on Red Sanders, viz. 3 Rupees per bandy load both in Cuddapah and North Arcot, the returns from these Forests should not fall short of Rupees 15,000 a year, or show a clear profit of Rupees 10,000. I have every reason to believe, from the reports I have received, and from what I know of these jungles, that the above return would be obtained.

Appendix J.

69. *Mr. Spring placed in charge.*—Owing to the misconduct of the Assistant Mr. Morison, (now under investigation) the conservancy and working of these Forests has been delayed. The particulars showing how Mr. Spring was placed in charge, and Captain Beddome requested to inquire into Mr. Morison's conduct, have already been reported to Government.

No. 4 of 5th May 1862.

70. Nellumbore Teak Plantations.—In December last I visited these plantations, and marked 20,000 saplings for removal, 20,000 were marked by Overseer Hall, and 10,000 by the Sub-Conservator Chatoo Menon, in all, more than 50,000 saplings have been cut, this will tend much to relieve the plantations, many of which were suffering severely from overcrowding, as detailed in my Report in May 1861.

Thinning of the Plantations.

No. 1,553, 5th August 1861. R. D.

71. *Scarcity of labor.*—Notwithstanding the extra grant of money, so emergent was the thinning work, that we were unable to plant one hundred acres as intended, only thirty were cleared ready for planting. Want of labor at the exact time of felling was experienced.

72. *Table shewing growth of trees.*—I append a table compiled, under my instructions, by Overseer Hall, from which the growth of the Teak tree, from seven to eighteen years of age may be seen; from this table will also be seen, how uniform the growth has been in the different plantations. In good soil where the trees had room, the rate of increase per annum in circumference averages, for first class trees 2 inches, second class 1½ inches, third class 1 inch.

73. *The Sub-Conservator recommended for a Pension.*—I regret to report that during the past year, the health of the Sub-Conservator Chatoo Menon, has been failing rapidly, and it became my duty to recommend this faithful and valuable servant of Government for a pension; but to obviate any delay in the current operations, I recommended the appointment of Mr. Ferguson as an Overseer; he was strongly recommended by Dr. Cleghorn as a good Forester. Mr. Ferguson was directed to proceed to the plantations as a temporary measure, and make himself thoroughly acquainted with the system introduced by Chatoo Menon.

Appointment of a European Forester.

74. *General operations.*—Every year sees the work increase, more plantations have to be kept clean, thinnings to be attended to, new ground to be cleared for planting, ripe Teak trees to be felled for sale, jungle woods of the more valuable kinds to be marked, thinnings to be floated to Calicut for sale, and lastly the rafts on the river to be watched.

75. *Proposed increase of present grant.*—In the coming Budget it was my intention to have applied for an increase of the present grant, as I considered it good policy to restrict our planting operations to a spot, where there is water-carriage to the coast. The price of Teak on the spot is nearly 100 Rupees the ton, and the locality as far as soil and climate are concerned, the most favorable in India for the growth of the teak tree. It is true we have had a difficulty about labor, but more energetic action, will this year no doubt remedy the defect.

76. *Financial results.*—The thinnings last year realized 4 Annas each all round, this year they should bring in a little more, say 5 Annas each, the trees being somewhat larger. Some old Teak to the extent of 7,500 cubic feet has been cut, this with the thinnings should realize at least 20,000 Rupees.

Major Babington's report shews a very small return for the year, which was calculated at 6,000 Rupees but has only reached 800 Rupees. His report is certainly a very "meagre one," he does not seem to have inquired or made himself informed, why so small an amount was realized. The sales were formerly conducted by the Collector's Department, but when made over to the Assistant, he should at least have inquired into the matter, nor does he give the estimated value of the wood on hand.

Appendix I.

77. *Felling.*—Felling is not carried on in the rains, the felling for clearing ground is done in November, nor is it necessary to float the timber at once, in fact the longer it remains on the bank, the fewer are the bamboos required to float it.

78. *Seignorage on trees.*—I am quite opposed to selling valuable trees on seignorage, where there is an Establishment to work the Forest, it is a simple way of saving the Assistant trouble and conveying the largest share of the profit in the pocket of the Contractor. Trees measuring 40 cubic feet were sold on stump fee for 10 Rupees; had we felled the logs and floated them to the coast, we should have realised at an outlay of 20 Rupees, at least 60 Rupees, or a profit of 40 Rupees, *versus* ten, on a hundred trees, this becomes a serious item.

79. *Commissariat Elephants.*—No doubt it would be an excellent plan to use the Commissariat Elephants when not required by that Department, it would be a saving to the State, and an advantage to the Forest Department.

80. *Boundaries and Survey.*—It is extremely important that the boundaries should be marked out, I have already brought to the notice of Government the necessity of a Survey.

81. *Charcoal.*—The Assistant's idea of burning charcoal when he complains of a want of labor in his legitimate occupation of extending the Teak plantations is untenable, further, he furnishes no data of any kind.

Appendix I.

82. *Style of Report.*—The style of Major Babington's report is unsatisfactory, there is a want of care in drawing it up; he altogether under-rates the value of the saplings, there is an immense demand for them for export to the Arabian Coast, and he should occupy himself with arrangements for floating them to Calicut, with the first freshes.

Return showing the age, circumference in inches at 6 feet from the ground, of eighteen Trees, viz., six largest, six middle, and six smallest trees in each yearly planting from 1844 up to 1855, in the Nellumbore Teak Plantations.

Year when planted.	First Class, numbered from 1 to 6 and their circumference.	Second Class, numbered from 1 to 6 and their circumference.	Third Class, numbered from 1 to 6 and their circumference.	Average height in feet from the ground.	Remarks.
1844 ...	1 ... 40 2 ... 40 3 ... 38 4 ... 36 5 ... 36 6 ... 36	1 ... 32 2 ... 30 3 ... 29 4 ... 26 5 ... 24 6 ... 24	1 ... 20 2 ... 20 3 ... 18 4 ... 17 5 ... 16 6 ... 13	46 ...	On good soil, distance tree from tree, about 22 feet.
1845 ...	1 ... 44 2 ... 40 3 ... 40 4 ... 40 5 ... 38 6 ... 34	1 ... 30 2 ... 29 3 ... 26 4 ... 25 5 ... 24 6 ... 24	1 ... 17 2 ... 16 3 ... 16 4 ... 16 5 ... 16 6 ... 16	48 ...	On very good soil, distance about 18 feet tree from tree.
1846 ...	1 ... 30 2 ... 29 3 ... 28 4 ... 27 5 ... 25 6 ... 24	1 ... 22 2 ... 19 3 ... 17 4 ... 17 5 ... 17 6 ... 16	1 ... 14 2 ... 14 3 ... 14 4 ... 13 5 ... 13 6 ... 13	45 ...	On good soil, distance about 18 feet tree from tree.
1847 ...	1 ... 30 2 ... 28 3 ... 25 4 ... 24 5 ... 24 6 ... 23	1 ... 21 2 ... 21 3 ... 20 4 ... 20 5 ... 19 6 ... 19	1 ... 14 2 ... 14 3 ... 14 4 ... 13 5 ... 13 6 ... 13	40 ...	On general good soil distance about 14 feet tree from tree.
1848 ...	1 ... 28 2 ... 28 3 ... 27 4 ... 26 5 ... 24 6 ... 22	1 ... 20 2 ... 20 3 ... 20 4 ... 19 5 ... 18 6 ... 17	1 ... 13 2 ... 13 3 ... 12 4 ... 12 5 ... 12 6 ... 12	34 ...	On not very good soil, stony in places, distance about 10 feet tree from tree.
1849 ...	1 ... 27 2 ... 24 3 ... 24 4 ... 24 5 ... 23 6 ... 22	1 ... 16 2 ... 16 3 ... 16 4 ... 16 5 ... 16 6 ... 15	1 .. 13 2 ... 12 3 ... 12 4 ... 12 5 ... 12 6 ... 11	40 ...	On very good soil, distance about 10 feet tree from tree.

Return showing the age, circumference in inches, &c. (Continued.)

Year when planted.	First Class, numbered from 1 to 6 and their circumference.	Second Class, numbered from 1 to 6 and their circumference.	Third Class numbered from 1 to 6 and their circumference.	Average height in feet from the ground.	Remarks.
1850 ...	1 ... 26 2 ... 25 3 ... 24 4 ... 24 5 ... 24 6 ... 23	1 ... 17 2 ... 16 3 ... 16 4 ... 16 5 ... 15 6 ... 14	1 ... 12 2 ... 12 3 ... 12 4 ... 12 5 ... 12 6 ... 11	35 ...	Not good soil, in some parts stony, distance about 12 feet tree from tree.
1851 ...	1 ... 28 2 ... 28 3 ... 26 4 ... 25 5 ... 24 6 ... 24	1 ... 18 2 ... 16 3 ... 16 4 ... 15 5 ... 15 6 ... 15	1 ... 13 2 ... 12 3 ... 12 4 ... 12 5 ... 12 6 ... 11	24 ...	Some very good and some very bad soil, distance about 9 feet tree from tree.
1852 ...	1 ... 20 2 ... 20 3 ... 20 4 ... 19 5 ... 19 6 ... 16	1 ... 15 2 ... 15 3 ... 15 4 ... 14 5 ... 14 6 ... 14	1 ... 11 2 ... 11 3 ... 10 4 ... 10 5 ... 10 6 ... 10	28 ...	Average good soil, distance about 10 feet tree from tree.
1853 ...	1 ... 20 2 ... 17 3 ... 17 4 ... 17 5 ... 16 6 ... 16	1 ... 13 2 ... 12 3 ... 12 4 ... 12 5 ... 12 6 ... 12	1 ... 10 2 ... 10 3 ... 10 4 ... 10 5 ... 9 6 ... 8	23 ...	Average good soil, distance about 9 feet tree from tree.
1854 ...	1 .. 20 2 ... 19 3 ... 18 4 ... 18 5 .. 18 6 ... 18	1 ... 16 2 ... 14 3 ... 14 4 ... 14 5 ... 13 6 ... 13	1 ... 12 2 ... 11 3 ... 11 4 .. 11 5 ... 10 6 ... 10	26 ...	Soil very good, distance about 9 feet tree from tree.
1855 ...	1 ... 17 2 ... 16 3 ... 16 4 ... 16 5 ... 16 6 ... 15	1 ... 12 2 ... 12 3 ... 12 4 ... 12 5 .. 11 6 ... 10	1 ... 9 2 .. 9 3 ... 9 4 ... 9 5 ... 9 6 ... 8	23 ...	Soil good in general, distance about 9 feet tree from tree.

N.B.—These measurements were taken in January 1862.

(Signed) E. HALL,

7th February 1862. *Overseer, Forest Department.*

Note.—On comparing this Table with those drawn up by Brown of Arniston, Forester, page 428, it appears that the increase of the Teak is greater by twenty-five per cent. than that of the Larch, and is three times as great as that of the Oak. The Teak at 18 years being 12 inches in diameter, the Oak at 20 years being only 4½ inches, the price of Teak and Oak is about the same, hence it follows that a Teak plantation must be three times as paying as an Oak plantation.

(Signed) H. R. MORGAN.

83. Salem Forests.—The returns from these Forests are far more than even I anticipated, a profit of Rupees 42,947-3-8 being shown, besides Sandalwood in store to the value of 20,000 Rupees, the latter is, I think, too high a valuation.

Lieutenant Ouchterlony's report, Appendix K.

84. *Accounts.*—Lieutenant Ouchterlony's account of the pay of the Establishment and working charges, is not very clear, and I should have sent it back for revision, had time allowed, but, as it only reached me at the end of May, I am compelled to submit it in its present state, trusting Government will excuse it, as much of the confusion that has arisen in the accounts was due to the sudden death of the Assistant, and the great delay that arose in obtaining sanction for the employment of a proper Writer and Establishment.

The Extra establishment was sanctioned, but Government declined to pass their pay until the sanction from the Supreme Government arrived.

In order not to lose the services of men collected with some trouble, I directed Mr. Blenkinsop to employ them on the work of forming Depots of wood, for Auction sale, and to pay them out of the grant sanctioned for working the Forests. Without this Establishment we should not have obtained half the results noted above.

On Mr. Blenkinsop's death, Overseer Yarde was left in charge of the Forests, and neglected to pay the men, though in justice to Overseer Yarde, I must say, he carried on the duties of the District very well, and I have already recommended him to Government for a portion of the Assistant's allowances, during the time he had charge of the District.

No. 790, 1st Feby. 1862.

85. *Lieutenant Ouchterlony assumes charge of the District.*—On Lieutenant Ouchterlony assuming charge of the District, I directed him at once to pay the men, as they had been employed on Government work, and the satisfactory returns of the year were principally due to their employment.

86. *Disarrangement of plans through the death of the Assistant.*—Mr. Blenkinsop having last year accompanied me in an extended tour, lasting nearly two months over the greater part of the Salem Forests, and having also this year accompanied me, to some jungles in South Arcot bordering on the Cotaputty jungles of Salem, was in full possession of all my plans, and was fully prepared to carry them out, his death in October last, just as everything had been got into working order, was a great blow, and has tended much to throw things back; still from the large returns, Government will observe, that the careful exploration, and systematic conservation and working of the Salem jungles has not been without good results, and next year I trust, that under Lieutenant Ouchterlony, matters will be improved.

87. *Depots.*—Lieutenant Ouchterlony has omitted to notice in his report, that the formation of Depots was a project already ordered.

88. *Establishment.*—The full Establishment having been sanctioned by Government, pending the sanction of the Supreme Government, that matter is arranged.

89. *Travelling Allowance.*—Travelling allowance at the rate of 60 Rupees a month has also been sanctioned, indeed, considering the great distance to be traversed in the Salem Forests, it is absolutely necessary.

90. *Houses.*—Small houses at Hurrúr and on the Munchy hills might be built out of the sum allowed for working the jungles, they would be very useful for the Officer, Overseers and others.

91. *Licenses.*—Salem is not yet in a fit state to dispense with Licenses.

92. *Stamp.*—Under the head of Stamps, Lieutenant Ouchterlony seems to have overlooked the fact, that none but printed Licenses were issued, a book containing several hundreds was kept by Mr. Blenkinsop, the system was as nearly perfect as possible, it was on the principle of a Check book, one-half in Tamil, the other in English. The Tamil half was torn off and given to the License holder, the other or English half remained in the book as a record. I had intended to introduce the same plan into Cuddapah, had the Collector approved of the Salem rules.

Appendix K.

93. *Sandalwood sales.*—It could not be expected that merchants would go into the jungles to buy Sandalwood, and until brought into a town, such as Denkincottah, sales could not be effected. I had directed that tenders for the purchase of Sandalwood at Denkincottah should be advertised

for in all the District Gazettes, but not bringing the wood into Denkincottah, was clearly the cause of no buyers appearing.

94. *Nurseries.*—I have instituted a plan on a small scale for the planting out of Sandalwood trees at Sigúr, if successful, it can be tried at Denkincottah.

95. *Forest products.*—These at the request of the Collector were taken over by us at Denkincottah, next year probably the results will be better.

96. Denkincottah Forest.—In my report on the Salem jungles I particularly mentioned the Achawood* Forests, they cannot be worked, as you descend from Denkincottah by a paved Ghat at a gradient of one in four, the outlet near Pennagram, is up the rocky bed of a watercourse, over which even a wudder cart would fail to make way. I then explained that until a proper Ghat was made, these Forests could not be worked for anything but Sandalwood. The timber cannot at this point be floated down the Cauvery, many miles lower down, perhaps floating may be practicable, but I am not aware that there is any valuable wood below Cauveryputnum.

Enclosure to letter No. 440, 11th April 1861.
* Hardwickia binata.

97. Chennat Nair Forest.—I visited this Forest in December last, it is worked by the Railway on a lease of three years, and has been very serviceable to them in producing Erool sleepers. It may be worth while at the expiration of the Railway lease, to locate an Overseer in this Forest, as from its proximity to Palghat and the Railway, a ready market for the sale of timber may be obtained.

98. Conservancy.—In my last annual Report, I remarked that Conservancy was yet in its infancy, the system is every day getting into shape, and its advantages becoming manifest. The loss of North Canara has been a terrible blow to our financial condition, about one lac and fifty thousand Rupees of profit disappearing at once. Government in their Proceedings, No. 933 of 1st May 1862 have taken exception to the small returns of Conservancy compared with the outlay, and have called upon Collectors for their opinion, regarding the conservation and profits of certain Forests.

To give some idea of the returns under the old system, Captain Hunter states the returns of the Wyánd Forests for three years to be Rupees 640, and this the first year of Conservancy, they amount to Rupees 5,389-13-9. The Collector of Salem, Mr. Brett complained bitterly of the destruction of the Salem Forest, under the old system, and a short time ago in a letter addressed to me, stated that as the returns from Licenses &c., were more than the cost of the Conservancy Establishment, that the taxes on wood should be reduced. I need hardly bring to the notice of Government the state of the Nullah mallais in Kurnool, where Conservancy is called for by the Collectors and others. In Madura and Cuddapah matters are not yet arranged, but from the former at all events, a fair revenue will, I have no doubt be eventually obtained, and the Forests conserved at the same time.

Appendix A.

In the Sigúr Forest sandalwood was cut once in 5 years, and the returns were very small, whilst bands of Moplahs constantly made inroads and carried off large quantities; four years ago, I captured a band of thirty Moplahs in Sigúr Forest. The revenue has now risen to 20,000 Rs. and will for some years continue at this rate. Stealing has been put a stop to, and conservation attended to.

If Mudumallai Forest had not been worked by this Department, not a single public or private building of any size could have been commenced in Ootacamund, as the only Timber merchant in the place has not a log over 15 feet in length. Now that the system of Railways is being developed, and branch Tram-ways are about to follow, a small, but certain revenue must accrue from the conservation of all Forests: it will take years for many of the Forests to recover from the wholesale system of destruction to which they have been subjected.

Making the cutting of full grown trees compulsory is alone the salvation of some Forests, as in Salem and elsewhere, I have noticed the tendency to cut saplings, because the log just squared to a post or rafter. In many poor Forests the great end and aim was to prevent their total disappearance. To give Government an idea of what conservancy may do for the returns of a Forest, I mention the following facts which occurred a short time ago. Some two years ago, Captain Beddome then in charge of the Anamallais, recommended to Dr. Cleghorn, that he should supply a Mr. Bake with 75,000 cubic feet of Vengay at the bottom of the Anamallai

slip at 4 Annas per cubic foot. Dr. Cleghorn replied that as the distance was likely to be great the price per cubic foot, should be 6 Annas; fortunately he did not close with Mr. Bake, but agreed to supply the Railway with the above amount at the rate of six Annas per cubic foot. In November last, Mr. Bake came to me at the Anamallais and demanded his 75,000 cubic feet of Vengay, I replied, there was no contract with him. After Captain Brine took charge in December, Mr. Bake through Captain Brine again renewed his demand, and Captain Brine in several letters pertinaciously assumed the fact that Mr. Bake had a contract. I refused to entertain Captain Brine's view of the question, had I done so, Government will observe from the calculations below, how disastrous to the Revenue the result would have been.

To cut and deliver 75,000 cubic feet of Vengay at the foot of the slip, would have taken Captain Brine two years, as he did not in his year deliver more than 18,000 cubic feet of planks and logs at the foot of the slip, at a cost of eight Annas per cubic foot for supervision; the Vengay being only in logs I allow that he would have cut about double the amount say 37,000 cubic feet per annum which reduces the supervision to four Annas per cubic foot, and I as he could not possibly have cut any Teak in those two years, Government would have lost two years profit.

As I consider that Government have a right to expect an annual profit of Rupees 25,000 from the Anamallais, then they would have lost two years profit or Rupees 50,000. The case then stands thus.—

CAPTAIN BRINE IN ACCOUNT WITH THE ANNAMALLAI FORESTS.

Dr.

	Rs.	*Cr.*	Rs.
To felling, squaring, dragging, carting, and slipping 75,000 cubic feet of Vengay at 4 Annas 6 Pice and Supervision at 4 Annas per cubic foot..	39,483	By amount received from Mr. Bake for 75,000 cubic feet of Vengay delivered at the foot of the Anamallai slip at 6 annas per cubic foot..	29,375
To two years' loss of Revenue at 25,000 Rupees per Annum	50,000		
Total Rupees.....	89,483	Total Rupees.....	29,375
		Loss	60,108

Or sufficient to pay a Conservator for five years. There is not a single item on the debit side that is not under the mark. I do not think Captain Brine could possibly have delivered the Vengay at the foot of the slip for 4½ Annas the cubic foot, as

	As.	P.
Felling and squaring, is, per cubic foot.....	1	3
Dragging to road.....	1	0
Carting.....	1	0
Slipping.....	1	3
Supervision.....	4	0
Total, Annas ..	8	6

With good management the above rates might have been sustained, but certainly not if Captain Brine's year is to be taken as a specimen; for instance the cost of his Elephants for the year was above 4,000 Rupees, he did not deliver more than 18,000 cubic feet at the foot of the slip, or the cost for dragging and slipping was nearly four Annas the cubic foot, instead of two Annas three pice.

I have, in the above calculation, allowed nothing for the seignorage on the trees which at 1-8-0 per tree producing a log of 16 cubic feet, 4,690 trees to make the 75,000 cubic feet or Rupees 7,035, or a total loss of 67,143 Rupees.

Had Captain Beddome's recommendation of four Annas a cubic foot been carried out, the loss to Government would have been much more, or nearly 77,000 Rupees.

99. SLEEPERS.—It is a question if the Railway will not have to return to wooden sleepers, it has been found at home, that the want of elasticity of the iron-pot sleeper destroys the rolling stock, and unless some method of obviating the damage be discovered, iron sleepers must be

abandoned. Travellers at home have given up their season tickets, sold their country houses, and returned to town, being no longer able to endure the concussion caused by travelling on iron sleepers. There is also the liability to damage from salt-earth mentioned in my last Report.

One cause of wooden sleepers not lasting, is, that under the chair a hollow forms, in this, water lodges, and causes rapid decay. A small piece of galvanised sheet-iron fitted over the part, would prevent the formation of a hollow.

100. MALABAR TEAK.—This wood for the use of Gun carriage wheels has been discontinued by the Superintendent, as it was found quite brittle. I have explained this to Colonel Maitland by showing him that he must have been supplied with girdled Teak. Good cross-grained Malabar Teak is superior to any wood for wheels. Girdling Teak has long ago been given up, it makes the wood birttle and deprives it of its oil.

101. SATINWOOD.—Some of the finest Satinwood that I have seen any where, is to be met with near the foot of the Anamallais; this valuable wood is rapidly disappearing, under the cultivator's axe, I would recommend a few hundred loads being cut, and stored near the foot of the hills, it could be sent to Madras per Rail.

102. TEA PLANTATIONS.—I have inspected the Tea plantations of Messrs. Mann and Rae, they are both being extended. Mr. Thomas, the Collector of Coimbatore, made a mistake in supposing that a Tea tree should be five years old before plucking, the best Tea is made from three years' old trees. I have again to offer the remark that, I do not think, much land will be taken up unless the market value of the Tea is established, and Burgher holdings carefully defined.

103. WASTE LANDS—The numerous applications for Forest land that have poured in, has caused considerable embarrassment, where the opening up of the country is so desirable, it does not seem right, to refuse all Forest land, and I would again bring to the notice of Government, that unless ten to twenty per cent. of the land given is Forest land, it cannot be expected that any extensive cultivation of Tea or Cinchona will be tried. In a letter addressed to Mr. Thomas, Collector of Coimbatore, on certain applications for the Devi sholah, I remarked that it was not compatiable with the advancement of enterprize to systematically refuse all Forest land, for Tea or Cinchona, that I saw no objection to giving the land, provided the following conditions were observed:—That the Forest above 6,700 feet should not be cut, thus leaving a ridge of 450 feet to attract the rain fall, that for every bandy load of wood sold, one Rupee seignorage should be paid. These, I think, were fair conditions for both parties, and would whilst protecting Government from all loss, have encouraged enterprise. The first pioneers should have liberal terms. Tea and Cinchona once successfully established, the conditions might be made more stringent.

104. ASSISTANTS.—With the exception of the Annamallais and Cuddapah, I am well satisfied with the exertions of the Assistants.

105. OFFICE.—Native Surgeon F. Appavoo has conducted the duties of the Office satisfactorily. My Head Clerk Mr. Spring has also rendered satisfaction.

106. MAP.—A map by Captain Hunter showing the Wynád Forests accompanies this report, if it were lithographed it would be found useful and might be appended to the report.

107. NORTH CANARA.—This our finest Forest having been made over to the Bombay Government, I have but few remarks to make.

108. *Financial remarks.*—It appears that Mr. Muller failed to realise the value of his wood this year, but has accumulated a large stock in Depôts, which I have taken credit for in the receipts of the year, as timber made over to the Bombay Government.

Appendix L.

109. FINANCIAL REMARKS.—From the table above it appears that the net profit of the year amounts to the large sum of four lacs, twenty-eight thousand six hundred and thirty-nine Rupees with a stock of Timber, worth two lacs and sixty nine thousand Rupees, this is entirely due to the large amount of Timber transferred to the Bombay Government, on the making over of North Canara. If the North Canara profit is reduced to the same figure as it stood last year, viz. 1,74,754-11-7 then the results of Conservancy for the year, show as compared with last years a follows:—

	Rs.	A.	P.
Profit for 1860-61....	1,83,731	10	9
Do. 1861-62.....	2,03,585	0	0

or an increase in the general Revenue of Rupees 19,853-5-3, had the Anamallais not exhibited such an extraordinary deficiency, the profit would have been much greater. The profits for the last 3 years then, taking the Revenue on the above data for a fair comparison will be as follows:—

		Rs.
See page under Anamallais.	Receipts for 1859-60	1,98,294
	Do. 1860-61	1,83,731
	Do. 1861-62	2,03,585

It will from the above be apparent that notwithstanding the Department has been saddled with the whole of the Military pay, making a difference of some 20,000 Rupees in the salaries for the year, that the general results of Conservancy are in favor of 1861-62, and had North Canara not been lost to us, I have no doubt, but that next year would have shown, increasing favorable results, for though the Anamallais exhibit a deficit of Rupees 20,000, still as I have explained some 3,000 planks, worth 90,000 Rupees were cut last year, at a cost of Rupees 42,200, so that in fact, if the whole of the Annamallai wood cut last year had been sold, there would have been a profit of Rupees 50,000 instead of a loss of 20,000 Rupees, this amount of profit will only appear next year, when the planks have been sold.

South Canara has slightly fallen off for want of a proper Establishment, this Forest as I have explained, requires to be systematically worked, to produce a fair Revenue.

Mudumallai Forest exhibits a slight profit, with a large stock of timber on hand, there is also an item of Rupees 6,000 due to the Forest by the Wellington Barrack's for wood supplied, but as the matter is still under inquiry, the Forest has not been credited with it.

Sigúr exhibits a good balance and one that will annually be kept up.

The Neilgherries show a defecit due to the excessive cost of supervision, if placed under the Officer in charge of Mudumallai the balance will shew a fair profit.

Salem exhibits a large profit, and a good stock of wood on hand, the demand for every kind of wood in this District and the Railway passing through it, explain the large returns.

Madura shows a fair return, which as I have explained might be more than doubled, if the Forests are systematically worked.

Cuddapah the above remark applies also to these Forests.

Wynád, if the proposed amalgamation, of the Wynád and Hoonsoor Forests, is carried out, a handsome annual profit should be realized.

Nellumbore, the sales here were not effected by the Collector in time to appear in the annual returns, hence the apparent defecit and the large stock of wood on hand.

110. CONCLUDING REMARKS.—What the Financial results of the present year will be, can only be approximately arrived at, the loss of North Canara will of course reduce them materially, still if the Neilgherries are placed under Mudumallai, the Annamallais, South Canara, Wynád, Madura and Cuddapah worked vigorously and the pay of the 1st Assistant merged into a Forest charge, the profit may probably amount to a lac of Rupees.

As I have no longer any records to refer to, much of this Report is written from memory, I therefore trust that Government will excuse any shortcomings that may be due to want of documents.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) H. R. MORGAN, Major,
Late Offg. Conservator of Forests.

Financial results of Forest Conservancy, for 1861-62.

	Disbursements.	Receipts.	Balance in favor of Government.	Excess of expenditure over receipts.	Estimated value of Timber on hand.	Remarks.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Anamallai	42,200 14 11	22,090 10 2	...	20,110 4 9	91,000 0 0	
North Canara	92,435 12 9	4,90,147 0 0	3,97,711 3 3	...	...	
South Canara	2,939 11 3	8,594 7 0	5,654 11 9	...	1,28,000 ...	
Mudumallai	34,316 14 7	37,936 5 1	3,589 6 6	...	10,000 ...	
Sigur	5,643 0 5	25,006 11 4	19,363 10 11	...	...	
Neilgherries	8,865 5 4	6,245 9 5	...	2,619 11 11	20,000 ...	
Salem	7,515 10 10	52,124 14 8	44,609 3 10	...	...	
Madura	2,154 0 0	6,526 7 10	4,372 7 10	...	...	
Cuddapah	2,759 1 10	5,481 13 3	2,722 11 5	...	...	
Wynad	5,210 15 9	5,389 13 9	178 14 0	...	...	
Nelumbur	1,473 5 6	803 0 0	...	2,971 5 6	20,000 ...	
Australian Plantation	...	...	...	1,473 6 0	...	
	2,09,324 3 2	6,60,351 12 6	4,78,202 5 2	27,174 12 2	2,69,000 0 0	

Deduct General charges.		
Pay of the Conservator, Office Establishment, travelling allowance, Contingent charges, &c.,	22,387 14 1	...
Excess of expenditure over receipts	27,174 12 2	49,562 10 3
Net profit		4,28,639 11 3

APPENDIX A.

Annual Administration Report of the Wynád Teak Forests for the official year ending 30th April 1862, under the charge of Captain A. Hunter, Acting Assistant Conservator of Mysore and Wynád Forests.

Wynád Forest Establishment why and when raised.—As this is the first Annual Report regarding the Wynád Teak Forest, I shall commence by showing why the Establishment was made. It appears that in the year 1858, the Conservator of Forests visited the Wynád Teak Forests for the first time, and considered them of such great value, and extent, that he recommended that an Officer should be appointed to traverse these Teak Forests, till a system of robbery and spoliation introduced during the last few years by certain trustees of certain ruined Devastanums was suppressed. To prevent the great waste of Teak &c., and to fix the boundary and watch it, the Government on the 18th September 1860 sanctioned the present Establishment, consisting of

1 Assistant Conservator	at Rupees	100	0	0
1 English Writer	at „	11	10	8
1 Duffadar	at „	3	5	4
1 Goomastah	at „	6	10	8
14 Peons	at 2 „	28	0	0

Being one-third of the pay of the Establishment, and amounting altogether, including Militarypay, to Rupees 4,980 per annum. An arrangement was effected with the Commissioner of Mysore for the remaining portion of the salary and expenses of the Establishment. Captain Hunter, the present Officer in charge having raised the Establishment entered on his duties on the 22nd February 1861, and the result of his labours has been as follows:—

The extent of Wynád Teak Forests.—The Teak Forests in Wynád lie along the Mysore frontier, from Mudumallai in the South to the confines of Coorg in the North, a distance of about forty miles. The Belt of Teak on an average is about six miles in breadth. This Belt also contains an abundance of very fine Blackwood, Honah and Muttee. The central portion is the broadest and richest in Teak, it grows straight and to a good height, and contains fully fifty good teak trees to the acre. The Northern part of the Belt from Bowally to Coorg is narrow, but also very rich in fine teak. In the days of Hyder and Tippoo, these Forests were worked to a great extent, there are good cart track-road and outlets to the Eastward, and timber is easily floated down the Cubbany river.

Waste of Teak.—Of late years and previous to Dr. Cleghorn's visit in 1858, any one who chose took prime teak from these Forests into the Mysore country, paying a small stump fee, either to the Tahsildar of Wynád or to the Devastanum representatives; but whether these fees were paid to the rightful proprietors is a very important question.

Damage done to the Teak Forests.—These forests were consequently much damaged not only from this cause, but from squatters and Coorooburs burning and felling the trees in large quantities yearly, for the purpose of cultivating Raggee.

Value of the Wynád Teak Forests.—The value of these Forests, is very great and in my opinion are now the first in importance, as Wynád will soon have outlets towards the West to the sea coast. In 1855 the price of Teak at Mysore was from 6 to 8 Annas a cubic foot, which gave the wood merchants who worked the Forests (as they chose) not less than 25 per cent. profit, and if taken to Bangalore fifty per cent. more. The Mysore Government, some five years ago, saw their mistake, and at once stopped this system of "Gooty Kanum," or stump fee and worked their Forests themselves, and now obtain at least one Rupee per cubic foot profit.

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Price of Teak at Mysore in consequence of that Government taking the working of them into their own hands.—During the last three quarterly sales at Mysore, Teak* cut in the Forests which adjoin those of Wynád, the receipts per foot of first, second, third, and fourth class by auction quarterly has been on an average as follows:—

* Usual dimensions.
20 feet long 12 X 2
10 do 21 X 21
15 do. 18 X 10
Branch pieces.

August 1861 ... ... at Rupees 1 9 3½ per cubic foot.
December 1861 ... at do. 1 12 7 do.
March 1862 ... ... at do. 1 6 4 do.

Present value of old girdled Teak in Wynád and amount sold.—Even with my small conserving Establishment during the dry weather, I have been able to work on contracts some of the Government Forests in this Belt of teak. I found that many trees, years ago, had been girdled, and would not last long. I obtained at different periods the following rates, and sold Rupees 5,389-13-9 worth.

In Kotheraycottah Forest . at Rupees 0 5 2 per cubic foot.
In Koorcheat do. ... at do. 0 6 6 do.
In do. do. ... at do. 0 8 0 do.

Expected profit, should Government work the Wynád Teak Forests.—This was a clear profit, as the Contractors had to fell, trim, and remove at their own expense, and the Railway demand is so great that I have no doubt that they would buy any quantity at the highest market price, if it was removed to Mysore.

Thus the value of Teak in these Fosests if worked by Government would, I should say, bring a profit of at least twelve Annas per cubic foot, and when the road to the coast is opened, a distance of not more than eighty miles, the profit would be at least one Rupee. The supply is immense and the Belt also abound in Blackwood, Anjley, Honah, Muttee, and Cedar, and as it pays Coffee planters to saw up the Blackwood on their estates, and to send it to the coast by coolies. I have no hesitation in pronouncing these Forests as about the most valuable in Southern India.

The tenure on which the Teak Forests are held.—The Teak Forests are contained in the Eastern Umshoms or Parishes mentioned in the margin, the Forests in the two former are escheats, as they belonged to the Pychee Rajah who was killed in the palace of Poolpully in 1806 as a rebel. Those in the two latter are partly claimed by some pagodas, and the question as to who is the rightful owner to the Forest Teak lands is now before Government. In the mean time all felling in these disputed Teak Forests is stopped. Colonel Wilkes, many years resident of Mysore, in his history of that country states, that the Rajah of Coorg obtained the whole of Wynád as far as Kulpatta as blood-money, and that the Poon was a royalty. Teak to this day is a royalty of the Nellumbore Rajah in the South of Wynád.

1. Moonenaud.
2. Ganaputty Vuttem.
3. Hloornaud.
4. Poolpully dasum of Koopatode.

Escheats.

Poon and Teak a royalty.

Why Tippoo kept this Belt of Teak Forest as a royalty.—Tippoo evidently used this Belt of Teak Forest both for timber and as a barrier, in a Military point of view. He erected forts along the Belt, and through it he had his only road via Sultan's Battery into Malabar, down the Tambecherry Ghát. At Moogoodoo or Moorgull there are three stones with the name of the (two) Rajahs and the Crest of the Honorable East India Company dated 1805, and the records of Mr. Warden, who was then Collector of Malabar, might be able to throw some light regarding the tenure and boundary of these Teak Forests.

Boundary Stones dated 1805, at Moogoodoo or Moorgull.

Why the Teak Forests were not declared escheat in 1824.—It would also appear that in 1824, Collector Mr. Vaughan did not declare the disputed portion of these Teak Forests escheat, the eastern boundary of which was unknown and, I doubt, if he

could have done so, as it was only in the year 1825 that the Trigonometrical Survey of Wynád was done by Captain Ward, and it could not have been published till long after. The Eastern boundary of Wynád according to the said survey runs almost in the centre of the Teak belt, and this was done by Order of the Supreme Government, with a view I imagine to give Mysore half the Teak Forest and the Madras Government the other half; however, the claims now put up by the Devastanums are modern and it is only in the last few years that both the Mysore and Madras Governments have been made aware of the great damage and robbery committed in their valuable and extensive Teak Forests.

Boundary between Mysore and Malabar laid down by Order of the Supreme Government.

Resources of the Wynád Forests.—The following is a list of the Teak Forests in the Belt from Mooroogal or Moogoodoo in the North on the confines of Coorg to Tippoocaudoo in the South on the high road to the Neilgherry Hills.

Name.	Resources.	Who claimed by.
Iyapenpara Kukary.....	Possessing teak in abundance.	By the Tiruelly Temple.
Kooteray Cotta	Do. do.	Government property.
Masaul.....	Possessing but teak young. This Forest having been exhausted of prime teak.	Do.
*Susyvile *Hoolhully *Pambray *Kaper *Poolpully (Commonly called the Veddykynad.)	Possessing teak in abundance.	Claimed by Poolpully Temple.
Koorcheadoo Kallymallay Mungigal Toromungal Hurrygoonge Echecoon (Commonly called the Veddykynad Escheat.)	Possessing teak in abundance.	Government property escheat.
Edditoracottah ..... Kalamungul..... ... ... Bene.....	Do. but not easily to be got at.	Government property escheat.
Nardimallay ..... Tippoocaudoo... ..... Caroor.....	Do. easily worked.	Do.
Moodoomallai.....	Do. teak nearly worked out by Government who obtained it on lease.	Claimed by the Nellumbore Rajah but the Umshom is an escheat.

The above marked* are all I believe in the Veddykynad or North portion which is the central portion of the belt is from Bowally in the North to Edditoracotta or Ooscottoh in the South.—See map.

Government, I believe, ruled in an Order dated 24th August 1841, that the Forests in the Veddykynad was their property; but still, the Poolpully Temple puts in a claim now for a great portion of it and the Nellumbore Rajah claims a large portion of the Southern portion of the Belt.

Regarding Order of Government dated 24th August 1841. Writer has not got it and therefore cannot quote it in a detail.

An idea of the resources of the teak Belt may be formed when, in 1855, the Trustee of the Tiruelly Temple offered to give Mr. Williams for the Railway (under penalty in case of failure) three thousand Teak trees, one thousand of which were to be of not less than four feet in diameter and the rest not less than two feet from the Forest of Iyapenpara in the North (between Moogoodoo and Masaul) and he, the Brahmin Trustee estimated this portion claimed by him to contain ten thousand of Teak trees fit for immediate felling and several thousands of other useful timber trees, and Mr. Williams had no doubt he could easily fulfil the contract.

Resources of the Northern portion of the Belt. Offer made to Mr. Williams of 3,000 prime Teak trees in 1855.

The consequence likely to arise if Forest teak lands are granted to Trustees of Temples.—The Temple Trustees have already done great damage to the Forests. If what they claim is granted they would sell all their Timber trees at once and then sell the land for Coffee (and it is the best in Wynád), but it is a fact that the large Coffee plantations between this part of the Belt claimed by the Tiruelly Temple Trustee and his own lands have been mostly granted to the Planters by the Government or by squatters, such as the Bagherry estate, the two large Pen estates, Oliate, Calipa, Dr. Magrath's, &c.

The claim of the Trustees of Temples modern and unfounded.—If the modern custom of these Temples, of having sold timber on stump fee of 8 Annas per tree to the wood merchant, without the knowledge of Government (Wynád being then a sealed book to all but the Tahsildar of the taluq which contain 16 villages and 1,160 square miles of land) is to establish a claim to the proprietory right, it will be found in the records in the Cutcherry at Calicut that the revenue derived from 1851 to 54 on account of Government, for felling at the same rate was Rupees 640 for 1,280 Teak trees. The records may go still further back, and may also show that Government exercised the same right as the Temples. I am unable to state in what forests these honest men cut, who paid the Tax to Government. The tax doubtless was often evaded, and Tahsildars in a wild Taluq like this, in olden days were not backward in allowing temples every possible liberty.

The difficulty in controlling the revenue when the taluq of Wynád was under a Tahsildar.—In November 1849 for instance Mr. Chatfield writes from Manontoddy to Mr. Conolly the Collector thus, "In respect to the difficulty of controlling the revenue every body now cuts timber as it pleases them and from the nature of the country it is most difficult, if not impossible to prevent such proceedings."

5000 logs of Teak stopped on the frontier by the Assistant Conservator till the right of felling is settled.

On the 5th October 1860 Government directed that no teak cut in the Belt should be passed into Mysore, till the question of ownership was settled, and I stopped at least five thousand logs, which are now lying, three thousand on the Mysore frontier and two thousand on the Wynád side worth fully one lack of Rupees as they now stand, at one Rupee per cubic foot. The claimants, wood merchants state they were cut in the forests of Wynád belonging to the temples but this remains to be proved. This shows what the resources of these forests are and the above must have been less than one seasons work.

They also state that they cut and removed a great portion of the timber before the order was published, but if this was the case the Mysore authorities would not have prevented the wood passing through the first Taluq. They would have been but too glad to do so to obtain the tax on Wynád Timber, and the wood merchants have tried their utmost to evade this order.

Benefit arising from robbery of Teak being stopped.—In consequence of the robbery and spoliation of timber in Wynád being stopped, teak was sold at a fair price both at the Government Wood Depôt at Mysore and that of Madras at Mudumallai under Captain Gib, and I have even been able to sell some from the Wynád forests at eight Annas per cubic foot, the rate Government formerly got for a prime teak tree containing perhaps one hundred cubic feet.

Hoonsoor Commissariat Teak Forest much neglected and requires to be conserved.—I cannot in this report make mention in detail of the Hoonsoor large Teak Forests which is exclusively under the Madras Commissariat and worked by them, but it is highly desirable that it should be placed under the Forest Department, because the wasteful exhaustion of teak has not been stopped here. The Coorooburs revel in this Forest and have done immense damage and it is still going on. It is supposed that this Forest alone if worked under a systematic plan would give a regular supply of good timber to the State and the public. It has better means of communication than any in the Belt of Teak, and contains about one hundred and thirty square miles of Timber trees.

Means of Communication.—A glance at the map will show how rich in outlets the Belt is towards the East. With the exception of the main road in the North, these are good tracks and practicable for six months out of the year, from October till April and even May. From May to September the rains here are very heavy and the nature of the country and soil would stop carting, but this remark is not applicable to the roads leading from the main Depôts to Mysore if established as I propose at Antersuntry, Bagoor, and Koornajah. In fact towards the East they would be worked as easily as the present working Forest of Mudumallai. The Belt also enjoys the convenience of water carriage down the Cubbany river after the freshes, from Calavully and Susymallay to Humpapoor, a few miles from Mysore itself. Floaters are easily obtained at the latter place in Mysore. When Wynád is opened towards West, Teak timber could be sent down the Tambercherry Ghát as easily as Coffee, from the Kootheray Cotta and Masaul Forests via Bawally and from the central Forests of Koorcheat &c. via. Sultan's Battery. The present track roads will require to be improved gradually and widened, as the Bamboo which surround all Teak Forest is very dense and chokes up their approaches. I am not yet prepared to lay out a plan of new roads for opening out the virgin Forests between Ediltorahcottah and Mudumallai.

Government Forest lands in Wynád not Teak.—These lands are principally contained in the four Umshoms adjoining the Teak Forests. They contain Blackwood, &c. and much bamboo land. In many places the land is well fitted for Coffee, the destruction of these Forests not containing teak for the *bona fide* cultivation of Coffee may be considered legitimate, but not so for Raggee, which spoil the land for ever from being cultivated for coffee. At least, if Raggee is cultivated on lands unsuited for Coffee, it should be done on a Puttah, with premission of the Deputy Collector and taxed at a low rate, and the present system of every man clearing and sowing Raggee where he pleases and paying no tax for the same should in my opinion be stopped. This system is carried to a great extent in the Umshoms of Ganaputhy vuttum and Moonanád in bamboo and tree jungle. The Chetty cannot afford to pay a high tax for Raggee which is cultivated to feed his servants (or to pay them the rates of wages given by the planters) who cultivate the rice lands. The price of labor is so high that they might also be allowed a portion of land at a low rent on Puttah in case they are compelled to leave their holdings but the portion given should not be extended without taxation and a Puttah. The present system as I observed is ruinous to Government and no Nair or Moplah land holder would permit such wasteful clearings without being well paid for it. By Order of Government, dated 16th January 1862, No. 402, all Raggee cultivation in Wynád is taxed 2 Rupees per acre.

1 Moonanád.
2 Gunaputhy vuttum.
3 Ellornaud.
4 Poolpully dasum of Koopatode.

Fitted for coffee cultivation.

Caused by Raggee cultivation.

Raggee cultivation under no check or taxation.

Extent of Government lands in Wynád not known.—Government also possess some Forest lands towards Periat and Teriate, and in fact in several spots over Wynád, but I have been unable to find out their position, however, I have no doubt if they are well fitted for Coffee when applied for the real owner will be found. It is almost impossible to remove the squatters from them without a suit in Court.

Teak line natural Boundary of Teak Forest.—The line of teak is the natural boundary of the really valuable Forest, it will always grow and yield well on this Belt and every exertion is used to preserve it I believe that the Coffee planters are most anxious to know where the Government lands are available for Coffee, but the question I fear is unanswerable till they are demarcated and fixed by competent authority.

Coffee planters anxious to know where Government Forest land available for Coffee are situated,

Increase of Wynád in Coffee plantations.—In 1858 Wynád contained (30) thirty Coffee plantations and now it contains [illegible] of one hundred estates. Europeans have greatly increased as well as labour and [illegible]al. Another great question [illegible] rest is the demarcation of the Teak Forest lands belonging to Government, [illegible] for instance extent of the Mudumallai Teak Forest, in the South of the belt, claimed by the Ne[illegible] bore Rajah is not known.

Map of the Teak Forests and the reason why the Government Teak F[illegible] not clearly laid down.—I have prepared a map of the Teak Fore[illegible] in Wynád portions belonging to Government cannot be marked off till decided by competent au[illegible] The Settlement and Survey parties have left Wynád, but what they have done tow[illegible]s demarcating and surveying the Government Forest lands, Teak or other For[illegible] is not known.

Price of Forest Coffee-land in Wynád.—The Nairs towards the West are selling their Forest lands for Coffee planting at twelve Rupees an acre and one Rupee per annum quit-rent, which shows how valuable and how great is the demand for land at present and will give some idea of the value of Government land and the advantage that will be gained by having them demarcated and fixed for ever.

Population of the Teak Forests and their wants.—In the Teak Belt we have several bands of Coorooburs some of the Jani and others of Moolly caste they amount to about

Coorooburs	200
Gurcheas	50
Panniars and Pooliars	100
Chettys and Squatters	50

The former live entirely in the Forest. They are our only axemen, and without them it would be difficult to work a Forest. They do immense damage in clearing fine Forest for Raggee cultivation in fresh places yearly. The clearings are for many years after useless, even for Coffee. The destruction of useful timber trees is incalculable, but means have been taken to prevent this and this evil is now in a fair way of being put down.

It is one of my principal duties to put a stop to this "Takul" or Raggee cultivation in the Teak Forests, I have received prompt assistance from the Deputy Collector of Wynád Mr. Herbert Richardson in every case I have brought forward, and many Coorooburs and Chettys have been fined, some even to the extent of fifty Rupees.

Provision for the Coorooburs and Farm Slaves of Chettys or Farmers.—The Coorooburs through their Headmen are held responsible and the Chettys are also responsible for their Panniars or farm slaves. The practice would soon be put down if the Assistant Conservator was armed with powers to fine for such wilful waste and destruction of Government Forest, and which no amount of planting will counteract.

This power is allowed in Pegu (see Page 327, Rule 20, 21 and 22 in Cleghorn's Forests of South India).

The Coorooboor has no lack of labor. His services are constantly called for by the wood Contractor and the Planter. They will not leave their haunts in the Forests for any time, and if they must have clearings, it would be advisable to give each Headman a portion of land already cleared on Putta. Some arrangement of this kind might be made through the Deputy Collector, and the same might be allowed to the slaves of the Chettys who make this clearings in the Forest, near their rice holdings in the swamps. If we withhold the privilege of clearing for Raggee, these Chettys will be ruined and their servants will leave them,

under restrictions a piece of land might be granted, there are lots of old clearings near such holdings, and they have done what no Planter dare to, burning and felling the Forests in fresh places yearly, and will secretly continue to do so, till the matter is taken up by the Revenue authorities. I calculate that, at least, one hundred acres of Teak Forest is thus destroyed annually containing fully five thousand Teak trees, the evil has been in a great measure reached and I trust will soon be entirely stopped.

Damage done to the Forests by Coorooburs and Chettys' servants.

Fever and sickness in Wynád.—The months of April and May, September and October, before and after the heavy rains are the most sickly for fever, and during the rains it is with great difficulty my Establishment can traverse the Forests. The grass is there very high, leeches and flies abound, and in this large range there is not a single village, here and there one may meet with a solitary squatter or a small congregation of Jani or Moolly Coorooburs; but the Peons often find no shelter and dislike to move about in the wet season. I have lost one Peon from fever, and others have left very sick, almost in a dying state; others again have deserted and I find it most difficult to get men fit for the work on the salary now allowed, six Rupees per month.

Difficulty in traversing the Forests.

Sickness among the Peons.

Want of Medical aid and Medicines.—I may also observe that there is no Government Medical Officer at Manantoddy. A private Practioner, Surgeon G. Cream, is here, who has shown my Establishment every kindness in his power, in every way, as yet without any remuneration.

Contractors.—Most of the applicants for timber are wood merchants at Mysore, who have worked these Forests before they were conserved, and claim timber now lying on the frontier of Wynád and Mysore. I have therefore been obliged to be careful in accepting and framing contracts, especially as my establishment is small, a watching one in fact, and not yet on a footing to work the Forest to any large extent. The Contractors I find are ever ready to enter into contracts, and it is with the greatest difficulty I can get them to fulfil them.

Why more revenue has not been obtained.—The large extent of my charge and my duties in Mysore have prevented me showing more revenue. The Forests have been carefully watched, I am acquainted with their resources, outlets, extent, and value, the system of Takkul cultivation has been in a great measure stopped, the boundary has been laid down and all clandestine felling and removing of felled timber (till the rightful owner is known) has been stopped and guarded.

Progress made during the year.

Boundary between Mysore and Wynád.—The disputed portion of boundary eight miles, in length between Moogoodoo (the three stones and the bridge of Bawally) has been laid down. A belt of twenty-five feet having been cleared, on the 17th January 1862, I accompanied the party under Messrs. Stuart and Ricketts, and understand that when the line receives the approval of both Governments, I shall be directed to lay down the boundary Stones at every two furlongs and keep the Belt clean. These pillar stones are ready at Kakencotta. The whole boundary to the intersection of the three boundaries of Mysore, Coimbatore, and Malabar, will then be clearly defined and marked with the exception of a small portion between the fifth boundary stone in the vicinity of the Rampoor ford towards the Shegabetta tree (Trigonometrical station). I have had stones prepared for this latter portion and hope to lay it down next season. The party in 1859, with Dr. Cleghorn, were prevented doing so on account of fever.

Conclusion.—Should this Report be considered incomplete, I beg to mention that as I am also Assistant Conservator of the Mysore Forests, much of my time and duty has been taken up in that country, in supervising the working of their Forests, in traversing them to prevent robbery and spoliation. In making myself acquainted with their resources and outlets. In checking the tax on junglewood and also the illicit smuggling of Sandal-

wood. In marking out the boundary between Mysore and Malabar and looking after it. It will be observed that my Establishment is but a watching one, that the charge is a large one and gradually extending, and if separated into two, greater progress and check would be the result. Especially in the working of the Wynád Forests, the value and extent of which, I trust, is now well known. The Conservator of Forests, Major Morgan, proceeded on a tour of Inspection in the Wynád Forests and traversed them from the 19th February to the middle of March 1862, and in my monthly Progress Reports, full particulars of my proceedings during the year are given.

(Signed) A. HUNTER Captain,

Acting Asst. Conservator of Mysore and Wynád Forests.

APPENDIX B.

MUDUMALLAI FOREST.

Administration Report of the Mudumallai Forest for the official year 1861-62.

Financial results.—On 30th April 1861, there was an outstanding balance of Rupees 1,954-6-4, with this, Rupees 30,000 were first granted to work this Forest with during the year. Rupees 5,000 and 917-12-5 were subsequently received from the Annamallai and Sigúr Forests respectively, total Rupees 37,872-2-9, of this Rupees 34,346-14-7 have been spent; but in order to show the exact expenses incurred in working the Forest, a portion of the Military pay and allowances of the Assistant Conservator in charge, amounting to Rupees 3,127 3-0 which was not drawn from the Forest grant must be added. This gives a total of Rupees 37,474-1-7, while Rupees 37,936-5-1 have been realized by the sale of Timber &c. &c, and remitted to the Collector of Coimbatore; balance in favor of the Forest Rupees 462-3-6. But to arrive at the exact Financial state of the Forest it will be necessary to add to the above sum, the value of the Timber felled and squared during the year and now lying in the Forest as well as of that which has been carted and placed in Depôt at Tippacaudoo, Musnigoody, and Ootacamund, and still remains at those places unsold. Placing the low valuation of eight Annas per cubic foot upon the Timber in the Forest, twelve Annas upon that at Tippacaudoo, twelve at Musnigoody, and one Rupee at Ootacamund. Thus we have—

		Rs.	A.	P.
1,03,623½ cubic feet in Forests, &c.		51,811	12	0
45,179	" at Tippacaudoo	33,884	4	0
52,927¾	" at Musnigoody	39,695	13	0
2,805¼	" at Ootacamund	2,805	12	0
	Rupees...	1,28,197	9	0
Add excess of Receipt and Expenditure		462	3	6
Add 2,041 cubic feet of Timber supplied to the Wellington Barracks at 1-4-0 per cubic feet		*2,551	4	0
Gives Total in favor of the Forest		1,31,211	0	6

*This amount has not been realized in cash, because at the time of transfer of the Forest from the Barracks to the Forest Department, it was supposed the Forest was still indebted to the Barracks, Rupees 52,413-8-2; but the Board of Revenue have lately ruled that this was not the case in paragraph 8 of their Proceedings, dated 7th April 1862, No. 2,279.

This balance would of course be greater were a portion of the pay and allowances of the Assistant Conservator in charge debited against the Sigúr Forest, which is also under his care.

Roads.—No new roads have been opened, but the old ones have been kept in thorough repair, and three new Bridges have been made.

Coorumbers.—The Coorumbers have as usual been employed in felling Teak trees only, it being against the terms of the lease to fell any other. On two occasions numbers of them have run away, but as they had received advances most of them have been brought back. The increased demand for labor in Coffee plantations where not only the able bodied men, but also the women and children find employment, is no doubt the great inducement for them to abscond, and this will always be a difficulty in Forest operations as it is impossible to employ the women and chidren.

Sawyers.—There are seven sets of Sawyers employed. There is work for more, but they cannot be induced to come in consequence of the unhealthiness of the place.

Elephants.—The same four Elephants that were in this Forest last year are there still employed in dragging Timber. There was a fifth, but it being very young and too small for work was sold and the price realized placed to the credit of the Forest along with that of the Timber sold. Another sick Elephant which was sent from the Annamallai Forest in hopes that it might derive benefit from the change, died in March 1862. More elephants were much required, but until last month, when six Commissariat ones were obtained, could not be procured.

Bullocks and Carts.—The Bullocks have constantly been employed in carting Timber either to the Karkana in the Forest or to the Depôt at Tippocaudoo. Twenty-five bullocks have been purchased during the year. But unfortunately in March and April which are good months for carting almost all the Bullocks on the Establishment both old and new were laid up with sore mouths and feet, and this of course lessened the quantity of Timber placed in Depôt. Thirty-seven old and useless Bullocks were sold and the proceeds placed to the credit of the Forest with the Timber money.

Buffaloes.—The Buffaloes have, as occasion required, been employed in dragging and carting Timber.

Bandy Contractors.—Much of the Timber that is carted out of the Forest is taken by contract, but during the past year, the Contractors have given a great deal of trouble. They have been willing enough to take advances, but have been slow in working them off, and there is consequently a balance of Rupees 1,548-2-1 still against them, which they must work off in the ensuing year. For the future it is proposed to trust more to our own carts and bullocks and a number must be purchased. Provision for this has been made in the Budget estimate for the year 1862-63, and this is more urgent during that year as the lease expires on the 23rd March 1863, after which date all Timber left in the Forest escheats to the Nellumbore Rajah, the proprietor of it.

General Remarks.—The health of the Establishment employed in the Forest has been tolerably good. Of course, fever has at times prevailed, but not more so than usual in Forests. Great credit is due to Kistnappah, the Karkana manager, for the way in which he has conducted his most arduous and onerous duties. Until last month when unfortunately he had an attack it was supposed that he was constitutionally quite impervious to fever, and this peculiarity makes him invaluable for Forest work.

(Signed) W. A. GIB, Captain,

Asst. Const. Mudumallai Forest.

OOTACAMUND, MUDUMALLAI FOREST OFFICE,
5th May 1862.

APPENDIX C.

Sigúr Forest.

Administration Report of the Sigúr Forest for the official year 1861-62.

Financial Results.—During the past year there has been no felling of Timber in this Forest, but the Curumbers have been employed in the Suttiamungalum Taluq felling Sandalwood; six thousand Rupees was granted to work the Forest with, of this Rupees 917-12-5 have been transferred to Mudumallai Forest, and Rupees 5,050-7-4 have been spent, while Rupees 25,006-11-1 have been realized by the sale almost entirely of Sandalwood and remitted to the Collector of Coimbatore, leaving a balance in favor of the Forest of Rupees 19,956-4-0. There would have been a larger profit as there is still plenty of Sandalwood, but labor is not procurable owing to the unhealthiness of the District.

(Signed) W. A. GIB, Captain,
Assistant Conservator in charge of Sigúr Forest.

Oodiámund, Sigur Forest Office
5th May 1862.

APPENDIX D.

South Canara.

On looking over former annual Reports forwarded by the Collector, I find that a description of the Jungles placed under my charge have not been given, and as I consider such description necessary to enable you to form a correct idea of the supplies that may be expected from them, I beg to submit the following:—

Description of the Jungles in South Canara.—The jungles in this District bears no comparison to the jungles of Malabar or North Canara where there are large tracks of Forest uninhabited, and where, by making a single road, some three or four thousand trees could be got out. Our jungles are thickly populated, not by wild or wandering tribes, but by farmers, who carry on cultivation to a considerable extent, each farmer is allowed the space of 100 yards all round his fields, of which he is allowed to cut Timber and bamboos for his own use, free of all charge; besides this, there are several tracks of good Forests which are called Merchi wurgs (Pepper wurgs). The Ryot pays a Beriz on the wurg of five Pie per Pepper vine, I believe, but whether the vines are ever counted or not, I cannot say. When the Koomki land and Merchi wurgs are separated from the Government jungles there is but little left, and on this little, ripe trees are few and scattered. I may here state that I am at present engaged in girdling 1,500 trees of restricted timber, in the jungles in the Uppenangadi Talúq, and they are scattered over a track of jungle some thirty miles long, by five miles average width. Young trees are found in abundance, and with care there may be a considerable quantity of Timber got in this part some years hence.

Cassergode Taluq—This Taluq has been almost all under Coomry cultivation, there is at present nothing left in it except small tracks on the face of the Ghauts, and such tracks are unfortunately so situated that it would be very expensive to get Timber out of them.

Sooliah.—This jungle is situated partly in Cassergode and partly in Uppenangadi Talùq. There was formerly some good Teakwood in this track, but it is now exhausted, however, there is a quantity of young Teak and Blackwood springing up again, which are worth taking care of. During the year there has been 50,000 young trees pruned, all of which have a healthy appearance.

It is in this track of jungle that we have commenced to prepare ground for planting in. We have at present 6,000 pits dug, which I hope to be able to fill with plants during the rains.

Uppenangadi Talúq.—The greater part of the Timber and Bamboos cut yearly by the Merchants come from this jungle. Ripe trees of any kind are getting scarce; we have some difficulty in finding the number of trees required yearly.

Mangalore Talúq.—The jungle part of this Talúq runs along the face of Koodramuck, there is some good junglewood here, but restricted trees of any kind are few, the Timber in this part is comparatively speaking valueless. As there is neither road nor river leading from it, except at Naravu, where the Goorpoor river rises, at the head of this river we have some Poonspars, but merchants will make no bid for them, as they consider, that bringing them out, would be too expensive.

Oodipi Talúq.—From Mala to Andar the jungle is inferior, a good tree being seldom met with; it is in this track that the Sandalwood-oil stills are erected. From Andar to Someshwar (in the same Taluq) along the face of the Ghauts, we have some good Timber, the restricted kinds are Blackwood and Siripoona. There are five rivers running from this part to the coast, and there would be no difficulty in getting Timber out of this jungle, but merchants refuse to work it, as they consider it would be too expensive to bring Timber from there to the Mangalore market.

Timber supply.—I cut no Timber; I merely mark the trees, they are then given over to merchants who pay a seignorage of six Annas per Bombay candy on as many candies as they think they can cut and bring to the coast in one year, any Timber left behind is forfeited to Government, and sold by auction. The seignorage on Bamboos is eight Annas per 100. The following table shows the quantity of Timber and Bamboos taken to the Coast during the year.

Source of Revenue.	Amount.		
	Rs.	A.	P.
3,756 Bombay candies, at 6 Annas per candy.....	1,408	8	0
30 Boats, at 3 „ per running foot.....	115	0	0
2,51,915 Bamboos, at 8 „ per 100.....	1,259	9	3
440 Sandalwood Stills, at Rupees 1-10-6 per Still.....	728	12	0
Sale of confiscated Timber.....	3	0	0
Timber supplied to Ryots by Forest Department.....	10	3	6
Total Co.'s Rupees...	3,525	0	9

This table does not represent the whole of the Forest Revenue; the remainder is collected by the Collector and his Subordinates. The following are the different heads under which the remainder is collected:—

Timber supplied to Ryots.
Sale of confiscated Timber.
Firewood exported.
Seignorage on firewood, cut by Sandalwood-oil Distillers.
Seignorage on Charcoal, burnt by Iron Smelters and Blacksmiths.

As I receive no accounts from the Collector, I am unable to state the amount collected under the above heads.

Engineer's Department.—The Engineers cut their own Timber and pay the usual seignorage on it, so what they have cut is included in the above table.

Charcoal.—There is no Charcoal made in this District for sale; the Coast towns are suplied from the Malabar jungles. The Blacksmiths and Iron Smelters of the interior burn their own charcoal and pay a fee of six Pie per Moodah to the Potails of their respective villages.

(Signed) E. THOMPSON,
Overseer of South Canara Forests.

Uppenangadi
3rd May 1862.

APPENDIX E.

Neilgherry Sholas.

There is not much pertaining to these affording new matter. The accounts show the receipts as Rupees 6,852-5-11 and expenditure as Rupees 837-6-5.

Receipts & Expenditure.

As the Establishment is chiefly kept up for the purpose of conserving the Sholas, in the vicinities of the large Stations, and not as in the various Forests, for cutting Timber, it is not to be expected that the expenditure will be met by the return.

The revenue from the Neilghiri Sholas, which embraces the Hill Stations of Ootacamund, Wellington and Coonoor, is derived from the following sources, *viz.*, sales of contract for firewood to these Stations, contract for sale of charcoal to them, a tax of Rs. 2 on each new house, and 1 Rupee for repairing every old house of the Burghers, and also fines from people caught cutting wood without permission.

Sources of Revenue.

The contract for sale of firewood to Ootacamund for 1861-62, was sold for Rupees 3,900, by monthly instalments of Rupees 325, but the sum realized only amounted to Rupees 1,625. The Contractors Messrs. Wilson & Co. reporting they were losing much money, owing to Mr. James McIvor not being prohibited from selling wood, which he felled on Government land, in the vicinity of Ootacamund.

Contract for sale of firewood to Ootacamund.

Charcoal Contract.—The charcoal contract was sold for Rupees 260, the contractor has afforded any thing but satisfaction, ever endeavouring to evade terms of the contract. The sales of firewood and charcoal to the stations of Coonoor and Wellington was sold for Rupees 2,400, by monthly instalments of Rupees 200, but the Contractor threw up his contract in January last, as he reported that the removal of the Troops from Wellington caused him to sustain a great loss, moreover in Coonoor very many parties, (generally Coffee planters) sell the felled timber off their plantations, to the people of Coonoor and Wellington; a practice, which it seems might be stopped, as the Government Pleader has stated that no Lessee can sever the wood from the land; were this once acted upon by an order of Government, it would prevent future misunderstanding.

Contract for sale of firewood &c. to Coonoor and Wellington.

Wood cannot be legally carried off leased lands.

Burghers Houses...	Rs.	279
Fines for cutting wood without authority..	,,	34
		313

Burghers Houses.—The amount realised from Burghers for their houses new and old appears in the margin.

The firewood for the station of Ootacamund was procured from a large Shola, generally known as the Governor's Shola, situated (where the cutting was carried on) about seven miles from the Church. The charcoal was burned in the Shola known as the Peria or Devy Shola. The wood for Coonoor and Wellington was procured from a large Shola, a continuation of the Shola, which the Barracks got a grant of.

Firwood where procured.

Nurseries.—As there was no regular conservancy Establishment previous to this year, every thing in the way of Nurseries &c. here, for replanting the Sholas had to be initiated. But in a small shola which during the preceding year had been rented to the contractor Madanah, and almost entirely cut down, 20,000 young plants, chiefly suckers of the *Acacia Molissima* were put down, and appears thriving very well, about 24 *Ecalyptus* plants also were planted, which also are growing very well. In the Nursery at this Shola, there are about 80,000 young plants of the *Acacia Stricta*, ready for transplanting as soon as the season admits of the operations.

Replanting Sholas.

A small portion of the Governor's Shola has been pitted and will be planted as soon as the season will allow of it. A Nursery has been made in this Shola and a quantity of seeds of *Acacia Stricta* and *Molissima* and *Eucalyptus* sown, which are just coming up; and it is hoped will suffice to replant the Shola. Much injury to the young plants arises fron the cattle, which Burghers and Toders will persist in allowing to enter these plantations.

Replanting Governors Sholas.

A portion of the forest cut down at Coonoor, has also been replanted with plants chiefly *Acacia Stricta* which are coming on well.

Subordinates.—With regard to the Establishment, Forester Friend has resigned his appointment and been succeeded by W. Taylor, late a private in the 3rd Battalion 60th Rifles. Forester Seffield has given great satisfaction by his zeal, willingness and energy in the discharge of his duties. Of the peons not much can be said, they are very far from being what they ought to be, and instead of putting a stop to depredations in the Sholas, it is much feared that they connive at these acts.

Kotagherry.—Nothing has been done as yet for Kotagherry, as without a watcher stationed there, no stop can be put to irregular cutting in the Sholas; an attempt was made to dispose of the sale of the firewood to the station to a contractor, but no one is willling to purchase the right, this seemed the only way by which a watcher could have been kept.

J. H. BABINGTON, *Major.*
Assistant Conservator of Forest.

Ootacamund, *9th May* 1862.

APPENDIX F.

Wellington Australian Plantation.

The amount expended on these plantations is very small, viz. Rupees 333-6-0, this is owing to the sum of Rupees 2,500 sanctioned in January 1860 being expended, and the annual grant of Rupees 500 not having been received from the Collector, for want of instruction from the Accountant General, besides this, a sum of Rupees 692-7-3 was deducted by Captain Farewell (from the amount lodged in his hands by Dr. Cleghorn, for convenience, to be paid to the Plantation Overseer from time to time as it might be required); the claim was preferred by the Wellington Barracks for stores, reported to have been issued to the Plantations.

Amount expended.

From the above cause hardly anything has been done in the plantation, in fact since November 1861, not a cooly has been employed on it, as without funds it was impossible to carry on work. A sum of Rupees 100 was borrowed from the Nilghiri Shola Fund, and agreeably to the Orders of the Officiating Conservator of Forests paid to the Special Engineer of Wellington, towards the expenses of a new road, he is making along the southern margin of the ground for the plantations.

No funds—no work.

Rupees 100 borrowed and paid for a road.

The trees generally have improved greatly since the last annual Report; the Porcupines destroy a considerable number of the healthy young plants; the remedy for this appears difficult. A piece of ground has been selected by the Officiating Conservator of Forests for planting, during the ensuing year, which as far as soil and exposure go, ought to prove very good; hitherto sufficient attention does not appear to have been paid to these necessary objects; the aim in view apparently having been, to make the whole a continuous plantation, and poor soil twice and even thrice planted without success. In some parts the plantation requires thinning, but at present there is but small demand for the description of timber the thinnings furnish. A fringe of *Pinus longifolia* on the west side of the old plantation is very thriving, and it is much to be desired that this description of tree was more cultivated in this place, but at present no seeds are available. Though were applications made to Bengal, a supply could readily be procured.

Trees greatly improved.

Pinus Longifolia thrives well.

It appears that from the commencement of the plantation in 1856, about 106 acres have been planted with 2,40,000 young plants, chiefly *Acacia Stricta* and *Molissima*, but there are also a few *Eucalyptus* trees growing very well. The cost as taken from Dr. Cleghorn's reports,

Quantity planted and amount expended.

and what has been expended since the plantation was placed under charge of the Assistant Conservator, Nilgiri Shola, amounts to Rupees 12,617-0-7, but in this is not included Overseer Hall's pay of Rupees 80, and horse allowance Rupees 15 per month.

Government Gardens ought to supply plants.

The Garden at Ootacamund being kept up by Government, it is highly desirable that plants from it should occasionally be sent to Wellington, for trial in the plantations there, particularly plants of the *Coniferæ* tribe, for which Ootacamund may be too cold; at all events it would be worth the trial, having two or three dozens of each kind of the above genus, planted at Wellington; mention has already been made of the *Pinus longifolia*, which the Superintendent of the Botanical Gardens, Calcutta, reported as growing more luxuriantly than in its own locality on the Himalays.

Overseer.

Overseer Hall has been as usual hard working and zealous, but in the plantation owing to the want of funds has been able to do but little, he has however not been idle, having looked after the Sholas at Conoor and planted a portion of one, which was cut down for firewood.

OOOTACAMUND.
9th May 1862.

(Signed) J. H. M. BABINGTON, Major,
Assistant Conservator of Forests.

APPENDIX G.

ANAMALLAI.

I have the honor to forward the annual Accounts of the Anamallai Forest for the Official year 1861-62, countersigned by the Collector in accordance with Extract Minutes of Consultation, dated 12th November 1857 No. 1,153 paragraph 9.

2. The amount realized by the sale of timber to the Bombay Government during the past year is Rupees 18,086-14-6, The Madras Gun Carriage Manufactory has not been supplied with any Blackwood or other description of timber during the past year, no requisition having been made by that Department. The only other source therefore from which revenue has been derived is from the sale of timber to private individuals. The usual annual auction sale did not take place, there being no bidders. I purpose having an auction sale in the begining of next September, which a more convenient as well as healthier time of year. The aggregate receipts for the past year amounts to Rupees 22,090-10-2. The expenditure exclusive of the pay of the establishment is Rupees 32,448-12-11 making a total debit of Rupees 42,200-14-11. The expenditure for the past year therefore exceeds the assets by Rupees 20,110-4-9. The profit on the former years transaction was Rupees 14,166-2-6.

Viz. Rupees 9,752-2.

I beg to remark in explanation of what may otherwise be deemed a serious falling off in the revenue returns of this forest, that during the past year no less than 2,046 planks 257 heads and butts have been cut, and are in progress of carting and slipping. This has of course involved an unusually large outlay, while the proceeds of the sale of the timber cut cannot be realised in the present official year; as the timber cannot be entirely removed from the forest to the foot of the slip, and to the floating station till after the month of May. Meanwhile there is a large amount of cut timber on hand which will, when sold realise a considerable profit. The cut timber of all descriptions now lying in the forest in course of transit from it and in Depot of Mungarah, the floating station, is valued at Rupees 146,403-8-10. Out of 3,000 planks estimated to be cut in the past year 504 were cut by contractor and 1,799 by the Forest Department.

3. The sum of Rupees 2,500 has been included in the charge on the estimate for the past year on account of the purchase of one elephant. This sum I expected would have been paid out of a fund of Rupees 10,000 formerly granted for this purpose, and of

which a balance of Rupees 4,333-9-6 still remained unexpended. The Collector however objected to the disbursement of Rupees 2,500 from this balance, alleging that the sanction of Government was requisite.

4. With the exception of 6 logs lying near the Depot at Perwarry no loss or damage has occurred from the jungle fires.

5. I have endeavoured in accordance with your instructions to entertain Mulsars as permanent labourers on a fixed monthly salary; but they will not work on those terms. Their disinclination to take the permanent service is the result of their now possessing lands of their own, the cultivation of which partly occupies their time; and the produce of which I imagine is sufficient to enable them to live free and unshackled. They never can be got to work for more than a few days at a time, being altogether a wild, roving, and most dissipated set. My predecessor Lieutenant Ouchterlony could not obtain any of them to work as sawyers. I will try what I can do with them when I resume my residence in the Forest.

6. On my return to the Forest I intend executing the following extensions of existing roads to enable me to cart the Timber about to be cut with greater convenience viz. Present Main Road to be extended 4 miles a branch to be made from it at Perwarry, about 5 miles in a westerly direction, and another branch some 3 miles towards the south. The reconstruction of the Timber slip on the plan devised by you shall also have my attention.

7. I have experienced both this year and the last great difficulty in getting the cartmen to faithfully fulfil their contracts. This I apprehend will always be the case so long as the work of carting of the Timber above and below ghat is placed in the hands of so many individuals. It results in, but comparatively a small quantity of Planks and Logs being got out of the Forest during the current year, and consequently small sale either at Ponany or elsewhere. While the amount of Timber cut and lying in the Forest for want of cariage is always increasing in quantity, but diminishing in value, being exposed to risk of damage by fires and to all the alternations of heat, damp, and cold.

Answered H. R. M.

To remedy this I would suggest that parties be invited to tender for the conveyance of of all the Timber requiring carriage. No Contract to be made for less than 500 Planks or part of that number to be Logs; and the whole to be completed in the current year under certain penalties, and good securities to be given. I would further suggest that instead of devoting the whole amount of the estimate for the ensuing year to the cutting of a large number of Planks, a few more Elephants to be hired to drag and slip the outlying Timber in the Forests so as to render it available for sale. A matter I conceive of some importance, now that the Railway is completed from coast to coast. The Elephants now belonging to the Establishment 6 in number would be barely sufficient for current work of the year's estimate.

8. The Bombay Government having declined taking any more Timber for Dockyard purposes, I would suggest that Teak and Blackwood might be advertised for sale in the Fort St. George Gezette. There is probably a large demand for it at the Presidency; and it could be conveyed there by intending purchasers by Rail.

9. I conclusion I beg to observe that I was absent on Medical Certificate for 6 months during the whole of the working season, and am therefore precluded from offering for your consideration or information, such remarks as might have presented themselves to to my mind during a personal Superintendence.

10. The following is a Comparative Statement of Teak Timber supplied to the Bombay Government for Dockyard purposes in the years 1860-61 and 1861-62, showing the increase or decrease in the number of Planks, quantity and class delivered; and the amount realised in each year. The rates being determined by the Collector of Malabar from their fair Market valuation.

Comparative Statement of Teak Timber supplied to Bombay Government for Dock-yard purposes in the year 1861-62, shewing the Increase or Decrease in the number of Planks, quantity and class delivered and the amount realised in each year.

For the year 1860-61.									For the year 1861-62.									
Number of planks.	Class.	Quantity. Koles.	Barrels.	Vessels.	Rate per 100 Koles.	Rate per cft.	Amount.		Number of planks.	Class.	Koles.	Barrels.	Vessels.	Rate per 100 Koles.	Rate per cft.	Amount.		Increase.	Decrease.
															Rs.				
254	1st	19,363	3	4 75	..		14,522	7 3	160	1st	9,717	7	...	75	2-14-3	7,288	3 ...		
123	2nd	7,405	4	2 60	..		4,443	3 ...	89	2nd	4,855	..	9	70	...	3,398	8 4		
108	3rd	5,171	10	13 50	..		2,585	15 3	187	3rd	7,534	8	3	55	..	4,144	1 3		
55	4th	2,031	5	14 40	...		812	9 6	53	4th	1,667	1	2	50	..	853	8 9		
24	5th	744	4	6 30	..		223	4 11	8	5th	226	...	4	35	..	79	1 5		
92	Inferior	4,442	3	3 25	..		1,110	9 1	192	Inferior	9,373	11	4	25	..	2,343	7 9	5,611	2 9
656	..	39,158	7	10 ...	..		23,698	1 3	669	...	33,374	4		...	..	18080	14 6		

KOTAGHERRY,
10th May 1862.

(Signed) J. J. BRINE, Captain,
Assistant Conservator of Forests.

APPENDIX H.

MADURA.

I have the honor to submit my second Annual Report, shewing the Forest operations of the Madura District, during the official year 1861-62.

2. The operations in the Forests have been principally confined to the marking of full grown trees, which are fit to be felled and selling the same to the public.

3. The Forest Revenue of this Disirict is a mere trifle compared to that of the other Districts. The receipts of the past year amounts to Rupees 6,526-7-10, which shews an increase of Rupees 3,958-2-9, to that of the previous year. Besides there is on hand timber which may be valued at Rupees 420, whilst the expenditure, including the cost of the fixed establishment amounts to Rupees 2,154, thus leaving a profit of Rupees 4,372-7-10, in favor of Government.

4. The trees felled comprehended various kinds of superior jungle wood as well as teak and blackwood, but of all the indigenous trees, Vénga *(Ptero carpus Marsupium)* has been most greedily purchased by native traders from Trichinopoly and Madura, as the well grown timber of this kind is greatly prized for house building purposes.

5. There has been a great demand for Bamboos also; the total number of bamboos cut during the year both small and large amounts to 1,04,145. The bamboo Forests are confined to two places, Kumbum and Virupatchi Hills, the demand for them is very great at certain times in the year.

6. There can be no question as to the advantage of Government working the Forests and sell the timber at regular Depôts by Public Auction. By so doing a better and a more careful system of Forest Conservancy would be introduced and Government derive an increase in the Forest Revenue.

7. Punakád cultivation is still practiced I am sorry to say in the unfrequented vallies and on the slopes of the Hills at Kumbam without the knowledge of the Revenue authorities. The past year has been one of famine arising from the failure of the dry crops, this appears to have led the Ryots of the plains to adopt this practice as a means of livelihood.

8. I beg to forward a receipt to show that the amount noted in the account current has been duly credited to Government in the year under Report.

OVERSEER'S OFFICE, PERIYAKULAM, (Signed) E. SPERSCHNIEDER,

5*th May* 1862, *Forest Overseer.*

J. H. LEVENGE,

Collector.

APPENDIX J.

CUDDAPAH AND NORTH ARCOT.

I have the honor to submit my Progress Report for the month of May 1862, so far as it appertains to the North Arcot District.

2. *Kircumbaddy.*—This place forms the most convenient junction for all roads from Cuddapah and that portion of the North Arcot District where the red Saunders abounds. From twenty to thirty bandy loads pass daily through the Kircumbaddy valley, containing different descriptions of timber, chiefly the red Saunders. This valley is being deforested with great rapidity, and if strict vigilance is not exercised, the already impoverished Forests will disappear, and the ryots will not only suffer from want of fuel, but the climatic effect may be disastrous.

3. I stopt several bandy men and demanded their passports, they did produce such a document in Telugu, but these were all signed by the headman or Manager of the village. Government in their Proceedings, No. 1,261 of 27th June 1861, Revenue Department, desired that the jungles in the District of North Arcot, contiguous to the Cuddapah border, should be placed under the charge of the Conservator of Forests. What attention has been paid to these instructions is beyond my means to discover! There is not one peon, so far as I can ascertain, that regularly belongs to the Conservancy; there are few men belonging to the Collector's Establishment, engaged not to guard the jungles from spoliation or wasteful cutting, but as tax-gatherers, a proceeding which will materially thwart the object Government had in view when sanctioning the creation of this Department.

4. *Red Saunders.*—In paragraph 2 of your letter to the Board of Revenue, No. 533 of 24th June 1861, you state, that there is no difficulty about the seignorage, as the value of a bandy load of red Saunders at Madras is from 40 to 50 Rupees. This assertion is quite correct, so far as the question appertains to the Cuddapah Forests, and while I admit the justness of these premises on the one hand, you will allow me to hold to the conclusion that the Collector of North Arcot is also correct in stating that the red saunders in his District is not sufficiently valuable as an article of trade to bear the proposed seignorage of Rupees 6 per bandy load.

5. The above will appear at first view incongruous, but this incongruity will admit of an easy solution. In the Cuddapah Forests, the red saunders may be had in any quantity, of a superior quality both in logs, which are converted into posts for houses,

and which the Natives prefer to any other timber, as well as in pieces and roots for export as dye. A bandy will contain from 20 to 25 converted logs, which at Madras readily fetches from 2 to 2½ Rupees the log, then 20 logs × 2½ Rupees = 50 Rupees.

In North Arcot, the red saunder tree is of a very inferior description and unsuited for posts, the roots, therefore, are the most sought for the dye, and even these, in a commercial point of view, will bear no comparison to what may be had from the Cuddapah Forests, hence the objection of merchants to pay so high a rate of seignorage as Rupees 6 per bandy load. Two and half candies, equal to 1,250 pounds, go to a bandy and a candy at Madras sells for Rupees 6, then two and half candies × 6 Rupees = 15 Rupees.

6. Your decision, therefore, to strike the average and assimilate the rate of seignorage, viz., Rupees 3 per bandy load, both in Cuddapah and North Arcot, and which I hear the Collector of the latter District has concurred in, is not only judicious but extremely just, and this proceeding will, I have no doubt, yet afford means of subsistence to a large portion of the "dangerous* classes," and who these are I have not yet discovered.

* Vide Proceedings of Government, No. 1,261 27th June 1861 R. D.

7. Should you deem further information necessary, I shall again resume the subject after I have made myself further acquainted with it, but before I draw to a close, I would solicit of you to make such arrangements in communication with the Collector of North Arcot for placing the jungles in question under your control, as I feel that it is not a matter of seignorage alone but of conservancy. The question, however, that presents itself is, that, were these jungles placed under your charge, how I am to carry out your plans without an Establishment. The Collector, I have no doubt, will remove his men or ask you to take them over on your Establishment. I fear nothing can be done till the close of the present official year, unless you obtain permission for the Collector to make over to this Department that portion from his Budget estimate, where such salaries are provided for. This I shall leave for your better judgment to work out.

8. One hint I would beg permission to throw out for your consideration, but do so with diffidence, as I am unable, till officially announced as your Assistant in this District, to obtain accurate information. I have, however, casually learned that the headman of each village in North Arcot is allowed *twenty* per cent. on *all seignorage* collected by him on the different descriptions of timber, but this, I respectfully maintain, was only intended to be charged on *fuel, firewood* and *bamboos*, as per Section 10 of Circular promulgated by the Board of Revenue, No. 5,497 of 27th November 1860, laying down rules for the preservation of the jungles in the Provinces. If such be the case, what guarantee is there that these men will act honestly while so many instances of extreme accessibility to venality and corruption has often been exemplified by uneducated natives. Will an appeal to their fears, by declaring them liable for any misappropriation or malversation to the penalties provided in Regulation IX of 1822, keep them honest? I trow not, were only a hundred Rupees collected in North Arcot, twenty per cent. on that sum would maintain four peons at 5 Rupees each per month, who would patrol the jungles and maintain conservancy.

(Signed) THOMAS SPRING,

Acting Asst. Conservator of Forests in charge.

BALPILLI,

7th May 1862.

APPENDIX I.

NELLUMBORE TEAK PLANTATIONS.

The report of these is necessarily meagre, the Assistant Conservator having only been placed in charge of these on the 13th of March 1862, when he immediately visited them and found that about 30 acres of ground had been cleared, and was having the felled timber burnt off it Several logs of Venteak, Errool and Kurramurda had been laid on the bank of the nullah, to be floated away with the freshes. At that time much difficulty was experienced in getting Coolies, as some early rain had fallen and all parties were busy in sowing grains.

Quantity of ground ready for planting.

The Receipts by sale of timber, &c., according to subjoined Memo. amounts to Rupees 808, and expenditure to Rupees 5,358-10-2. This is certainly far from satisfactory, but it is hoped now that the plantations, &c., are under an Officer, a more satisfactory return will hereafter be shown.

Receipts and expenditure.

49,705 Saplings were cut in thinning the plantations, but the sale of these will not bring much, in fact many are not worth the carrying away.

Saplings cut.

The hot weather is the unhealthy season in that part, and felling, &c., is only carried on in the rains, the timber being at once floated down to Calicut.

Hot weather the unhealthy season.

There are extensive Forests in the vicinity of Nellumbore which are leased to Government for future planting operations; two of these have no water carriage for the timber, and before any cutting can be profitable in them, a road to the river would require to be made. Hitherto it has been usual to sell standing trees, exacting a certain seignorage, a plan which appears to answer, though perhaps the seignorage charged may have been too little. With regard to the valuable timber, such as teak, &c., growing within reach of the streams, it would be better to cut them for Government. A difficulty exists with regard to having these conveyed to the river; as when in flood every available Elephant is engaged by parties who desire to get their wood to market, this causes the hire for Elephants to be very high. It is therefore proposed that some of the Commissariat Elephants at Calicut, and Malliapoorum, be employed at Nelumbore on the above work, this would be of service to these Elephants also, as forage for them is more easily procured at Nellumbore, than Calicut. A shed would have to be erected for them, but that might be easily run up. It is hoped that this suggestion will be acted upon, and application made for the services of 3 or 4 Elephants.

Seignorage on trees.

Commissariat Elephants wanted.

An intelligent Forester, by name Ferguson, has been engaged for the Nellumbore plantations; he is an experienced man in his profession, having been engaged in it many years in Scotland. He is not in the regular establishment, but it seems very desirable that Government be solicited to appoint him at once as Overseer, in the same manner as Overseer Hall was appointed. He ought to be permitted to reside in Calicut, during the most unhealthy months of the year, paying occasional visits to the plantations.

Forester Ferguson.

The Sub-Conservator Chatoo Menon has not yet been pensioned, as some delay is experienced in filling in the required papers.

Chatoo Menon.

As soon as Chatoo menon leaves, there will be no person left to point out the boundaries of the various Forests leased by Government at Nellumbore, therefore immediate application should be made to Government for the service of a Surveyor or two, to survey and mark the boundaries. The monsoon being the healthy season at Nellumbore, and no work it is believed being carried on by the Revenue Survey in Wynád, at that time no difficulty ought to be experienced in procuring a couple of Overseers.

Boundaries to be pointed out and Forests surveyed.

The present return of the Nellumbore Teak plantations undoubtedly must appear unsatisfactory in a monetary point of view; but sanguine hopes are entertained that under present management, the next return will be more satisfactory. It is proposed that in future instead of burning off wood and clearing for fresh plantations, most of the wood be burned in the charcoal, for which there is a very large demand at the Beypore Iron works. Should this experiment answer, a considerable amount should be shown in future returns under this head.

Return satisfactory.

The aspects of the plantations continue as flourishing as ever, the Scotch Forester Ferguson above alluded to, was perfectly astonished at the appearance of them, declaring he had never seen any plantations in Scotland to be compared with them. There are about twelve lacs of young healthy trees in the plantation.

Planting very promising.

Another storm of wind has just occurred which has caused some damage to the plantation especially to that of 1844, or the one first planted.

Storm.

OOTACAMUND,

17*th May* 1862.

(Signed) J. H. BABINGTON, Major,

Asst. Conservator of Forests.

APPENDIX K.

SALEM.

In submitting my annual report on the Salem Forest for your information, I have the honor to state that inconsequence of my not having been in charge longer than 2¼ months of this year, I have not been able to explore the district as much as I should have directed, my attention having been almost entirely taken up with examining the working of the Sandalwood Forest.

Establishment.—This you are aware consist of, 1. Assistant Conservator, 2. Overseers and, 12. Peons totally inadequate to the immense tract of country in my charge, to remedy this evil an extra establishment is kept of 1 Writer 3 Gomastahs 6 Pygusts and 39 Peons. The writer is attached to the Assistant Conservator's office, the Gomastahs are employed as Assistants to the Overseers, who without their aid could never do their work, the Pygusts or in other words Duffadar are employed in continually making tours to all the outposts in the jungles; since I took charge I have ordered these latter to send in weekly Reports on the work they have been employed, which it seems was not the custom heretofore.

The sale of tickets &c., still continues brisk, the tickets for Bamboos and firewood are chiefly in demand. Besides selling these ourselves I have distributed a few to the different Government officials in various district for convenience of villagers who live far off. When it becomes generally known that these tickets are easily obtained I am confident the sales of them will be greatly increased. Each license is restricted to 25 cartloads of timber valued at 50 Rs. Now a great many people who have applied to me for a less number to build houses or do small jobs of their own. But as the Officiating Conservator before remarked in a letter of his to the Overseer, that it is much easier to look after 1 cartman, than 25, which is true, at the same time it is a great drawback to the villagers, ryots &c., being supplied, and a great inducement to them to commit constant robberies, which otherwise they would not attempt so that I would recommend that issuing of licenses be discontinued and that we cut our own timber and have perecdical auction sales of it, notifying the same in the Gazette previously, this would be very acceptable to the villagers and

towns people and meet the wants of both the rich and poor to one would then be permitted to enter the forest for the purpose of cutting timber and I am certain there would be less damage done to the Jungles.

Offenders.—When a man is found bringing away or having in his possession timber cut unlawfully the timer is seized this taken before a Magistrate to be prosecuted this not only detrimental to the work but interferes in a great measure with the duties of the various officers this might also be prevented by discontinuing the issue of Licenses.

Stamp.—I propose having a stamp for the office for stamping Ticket issued, a plain one easily distinguished by the peons at a glance, this is essentially necessary for at present I am given to understand spurious imitations of ticket are made and issued by private parties for it known one individual as tahsildar who wrote them himself sign and sold them, remitting the proceeds to the treasury and reporting to me that he had done so. And if the ticket were stamped and it was made known to the District that no ticket unless stamped would be passed by the Forest peons, there would be no way of evading the duty except by means of forged stamp.

Saplings.—Of all descriptions are sprinkled over the jungles and on the Munchee Nugherry Hills about that district they abound and I have found teak suckers growing from old stump some of them 1¼ foot in diameter clearly showing that those localities are favourable to the growth of this valuable timber.

Bark.—The bark mostly taken out of the jungles this year was the Vel Vaylum or Vaylum bark by a contractor, who in the previous year obtained the contract from the late Assistant Conservator, his contract will expire in the 1st June 1863, and if the Forests are to be protected this person contracting for the bark, should not only be bound down to *our* rules which it seems he has not been hitherto, but also made to lodge a heavy security in case he should transgress against the rules laid down by the Forest Department I do not make this proposition without having carefully weighed the matter, when the contract is again open to competition should *no* contractors come forward we can supply numbers of distillers with the quantity of bark they require in small or large quantities which would be very acceptable to them.

Sandalwood.—The sale of this year has unfortunately been most unsuccessful, the only causes I can ascribe it to be are partly the weather preventing cartmen going to the Depot to bring it into Denkencotta and the short notice given to buyers which prevented many attending. The Poojalies are the men employed on this work which only last a few months of the year, they work very laboriously and cheap by felling, cleaning, shaving and cutting into 2½ billets 3½ maunds of 25 ℔ each for one Rupee and bringing the same to the nearest store, so that we have only to cart it from the Hills to Denkencotta.

Nurseries.—I have selected some suitable sites for nurseries where it would be well to commence planting out S. W. trees the saplings could be brought from the jungles and planted say 10 to 12 feet apart. The expense might be tried first as a small scale to see if it answered, my only fear is want of rain for two or three months in the year, but to remedy that I would employ Poojalies to send and water them and as they are hardy trees when once they have fairly taken root they will require no further attention. I am given to understand our Sandal wood is far superior to the Mysore and ought therefore to command a good price in the market. As we were not able to sell any thing at our last auction I would propose notifying in the Gazettes of the Presidencies what amout of wood we have in store available for any Merchant who likes to come forward and make an offer for it through their Agents here.

Forest Product.—When the Sandal wood season is over there are a few months when the Poojalies are out of work and naturally look to us for employment I find the Overseer at Denkencotta has been employing them during that time in collecting Honey, Wax, Dyes, &c, which when sold recover a very fair remuneration so much so that I have no hesitation in saying if matters were better managed and another system introduced the proceeds of the sale of Forest product such as Honey, Wax, Dyes, barks, &c. would of itself

pay the expenses of working the Forest, leaving the proceeds of the remainder viz., timber a clear profit to Government.

Denkencotta Forest.—This is the principal seat for our work at present and if during the ensuin g year of 1862-63 we confined ourselves entirely to this side in the manner I have already described I am certain we shall be amply repaid for our trouble. These are by far the finest Jungles we have in the whole of the Salem District and every year we neglect to go and work them thoroughly, the more they are getting destroyed. During my late visit to these parts I observed a great deal of damage done, numbers of young saplings of all kinds cut down splendid large and valuable trees felled left lying rotting in the ground. All along the banks of the River Cávery some fine trees are growing in the dry season these could be felled and trimmed (not squared) then cut into portable lengths and floated down the river in monsoon to the village of Seringum (near Trichinopoly). I have not now time to explore this river but when I was at Hognakulum on the banks I heard that the Natives there about were employed in great numbers making Bamboo rafts and floating these and small spars to Seringum by water, below the falls. If you should think this worth while I will go down the river, report more fully on its capability for this work, when the season is favorable.

Accommodation.—I was sorry to observe on my arrival that the Assistant Conservator had *no* Bungalow for his use in any part of the district convenient for him that he might occupy as his Head quarters. At Harúr there is a Chuttrum, a building formerly used by the Natives of that place, built without any regard to ventilation, accommodation or healthiness the only part of it available for my use is a room about 18 or 20 feet square facing the west and unbearable after 5 P. M. another part of the building is occupied by a Police guard and a Prisoners room. I would earnestly request sanction may be given to build a large and roomy Bungalow at Harúr, and if operations are to be recommended on the Denkincotta division this ensuing year that another be erected on the Munchy or Kodgherry Hills the reason of this latter request is that should I or any of the Overseer or others fall sick they will have a healthy place of resort, whereas at present there is absolutely no place for the Assistant Conservator to go to recruit himself should he get sick.

Account.—These I am sorry to say are at present in a state of great confusion. I cannot account for it in any way but saying that since I joined I have not had the time I require to look into and settle every thing. You will observe towards the close of April I drew the balance of the estimated sum, this sum was absolutely necessary to pay up the arrears of pay due to the Extra Establishment. It is easily explained why this was not done before. On the death of the late Mr. Blenkinson, the Overseer who had charge not having authority to draw out the money from the Treasury for this purpose naturally allowed it to remain unadjusted until my arrival when reinformed of the circumstance and I communicated with you on the subject and got orders to pay them up. As this was a work of time I could not wait but hurried off to Denkencotta and on my return to Harúr found I was urgently required in Madras. It is a great pity that these people have not received their pay like the others regularly every month their entertainment was absolutely necessary, and by this delay they have become discontented and should they leave on receiving their pay will deter others from entering the Department.

Profit.—On 30th April ending the year 60-61 I see the accounts shew a collection of Rupees 17,359-15-0, deduct working expenses and contingencies, Rupees 4,285-11-10 which left a balance in favor of Government of Rupees 13,064-3-2. The past year shows a collection on tickets timber, &c., of Rupees 52,124-14-8 deducting working charges &c., Rupees 9177-15-0 and there remains a balance of Rupees 42,947-3-8 this is easily accounted for as I have already informed, as 2 thirds of the Establishment have not received their pay for 7 or 8 months and besides this altho' Rupees 1,050-0-0 was expended in working the Sandalwood Forest although none was sold this year; yet Government are not losers for we have nearly 20,000 Rupees yes and more I think in store.

Travelling.—I request I may be permitted to draw travelling allowance and that the same may be allowed for those who accompany me through the District either monthly or

per mile. I have since my arrival been put to a great deal of inconvenience in consequence of not drawing this allowance.

Estimate.—I find the sum of Rupees 5,000 have been granted for the working of the forest for the ensuing year, this I am afraid will run far short of the work on account of the sum of Rupees 1,776 being arrears of pay due on the 30th April 1862 to the Extra Establishment.

(Signed) J. W. OUCHTERLONY, Lieutenant,

Assistant Conservator of Salem Forests.

SALEM, 20*th May* 1862.

APPENDIX L.

NORTH CANARA.

I have the honor to submit my accounts for the official year 1861-62.

2. The Account Current shows Rs. 89,678-10-7 in the receipts, and Rs. 92,435-12-9 in the expenditure, leaving a deficit of Rupees 2,757-2-2.

3. The Memorandum of Wood unaccounted for shows the stock of Timber on hand at the Depots and the outstandings for Timber actually sold, but of which the money could not be all collected, so as to exhibit it in the accounts of last month.

Estimated value of Timber in Store	Rupees	3,06,563	6 0
Outstandings	„	1,00,105	13 9
Total Rupees...		4,06,669	3 9

4. As both the Account Current with a deficit, and the large stock of timber now on hand, are extraordinary, they serve to explain each other. While on the one hand no sale of consequence was held during last year, timber on the other was collected in the Depots. Such sales as were held come off only lately, and the time, as already explained, was too short to bring all the sums to account. Besides, though payments have actually been made by parties belonging to the Bombay Presidency, they were made by Bills not negotiable, on her Majesty's Bank, from whence Bills of exchange in favor of the Collector of North Canara have to be obtained before the sums can appear in the Collector's accounts.

5. Last year the estimated value of Timber in Store was Rupees 1,54,006, while now, including the outstandings, it is Rupees 4,06,669-3-9, or Rupees 2,52,663-3-9 more, which sum, had it come to account, would have been the net profit, leaving the same quantity of Timber in Store as was shown last year.

6. The past year was an extraordinary one. Throughout the year, the Establishment as well as the working people were more or less laid up with fever, and such is the case still. Several people of the Establishment died. Contractor Pinto lost no less than sixty-two men in Goond, of whom five were Superintendents. Consequently not one business did, or could go on, as it otherwise might have been expected to have done.

7. This having been the case, the Timber sales above the Ghauts were deferred till better times, and all cuttings of new trees were discontinued. Such of the workmen, who were able and willing to do business for the Depot were ordered to collect only outlying dead wood, wherever they would find any. A certain rate was fixed for them from each jungle to the Kesorally Depot, four miles from Hallial. In this manner about 20,000 candies of old wood of every description have been collected. The collection of this wood was more expensive than it would have been, had fresh trees been cut in a comparatively small area. The cost is about Rupees 60,000. At the sales, this wood will not fetch such a price as could be expected of good large timber; however, next year Rupees 1,50,000 will be realized at the very least. This result is satisfactory, being profitable while it saves an immense quantity of new cuttings.

8. *Smallwood* or clearings from the jungle-land given out for permanent cultivation forms now a regular, though a very troublesome business for the Establishment. The Account Current on this head shows Rupees 12,331-1-9, as the income, while the expenditure is only Rupees 2,643-4-7 well worth the trouble, and much better to save the wood than allow the burning of it.

9. *Sandalwood* in North Canara is not first rate, and it will never show a great figure in the accounts. To go on with the work as commenced three years ago, began at one end of Sirey Taláq, cutting dead and defective as well as ripe trees, and at the freeing others from Bamboos or other overhanging stuff, it is calculated that another ten years will be required to finish the Sirey taláq. The average expenditure will be about Rupees 660, while the income on this head will be about 5,000 Rupees, a sufficient remuneration for mostly defective wood only.

10. *The new seignorage* rule, according to which the local wants are supplied, has now had its trial for one year. The measuring and stamping each piece of wood entails not only an Establishment, but a vast deal of work for the same. During the year 1,034 permits were issued, of which 465 only have been returned to the Office. Sickness prevented many people to cut the wood in the given time, and therefore two additional months were granted to every permit holder throughout the District, otherwise the whole number of issued permits would have been returned duly filled up. The accounts can therefore only be shown of the 465 returned, on which were cut,

Wood	12,105	pieces—Candies 5,673-1-4-15.
Bamboos	1,36,090	
Small bamboos	15,728	
Canes	18,011	
	2,69,829	

Considering this to be half of the number of permits issued, the other half may be estimated at the same rate. The annual grant would therefore amount to Timber 24,210 pieces containing Candies 11,346-2-10. and Bamboos 5,39,658. Financially the present system is better. The receipts on this head were Rupees 6,881-13-9, and the expenditure Rupees 750-9-3, or about 8½ per cent. on the income. According to the old rule, trees were granted at 8 Annas each, from which 1 Anna or 12½ per cent. was deducted.

11. *Firewood* is now mostly cut up from branches and other dead smallwood, and this year Rupees 3,103 were realized. It is more expensive to cut up the branches and such wood fetches less in the market, than wood cut up of the Kanagálá tree (*Dillenia Pentagyna*) for which always more is paid on account of its being so easily split.

12. *Kallanuddy*.—It was impossible to do anything this season towards clearing this river. People could not be procured who knew anything of blasting rocks, and such as could have been had, were urgently required by the Engineer Department.

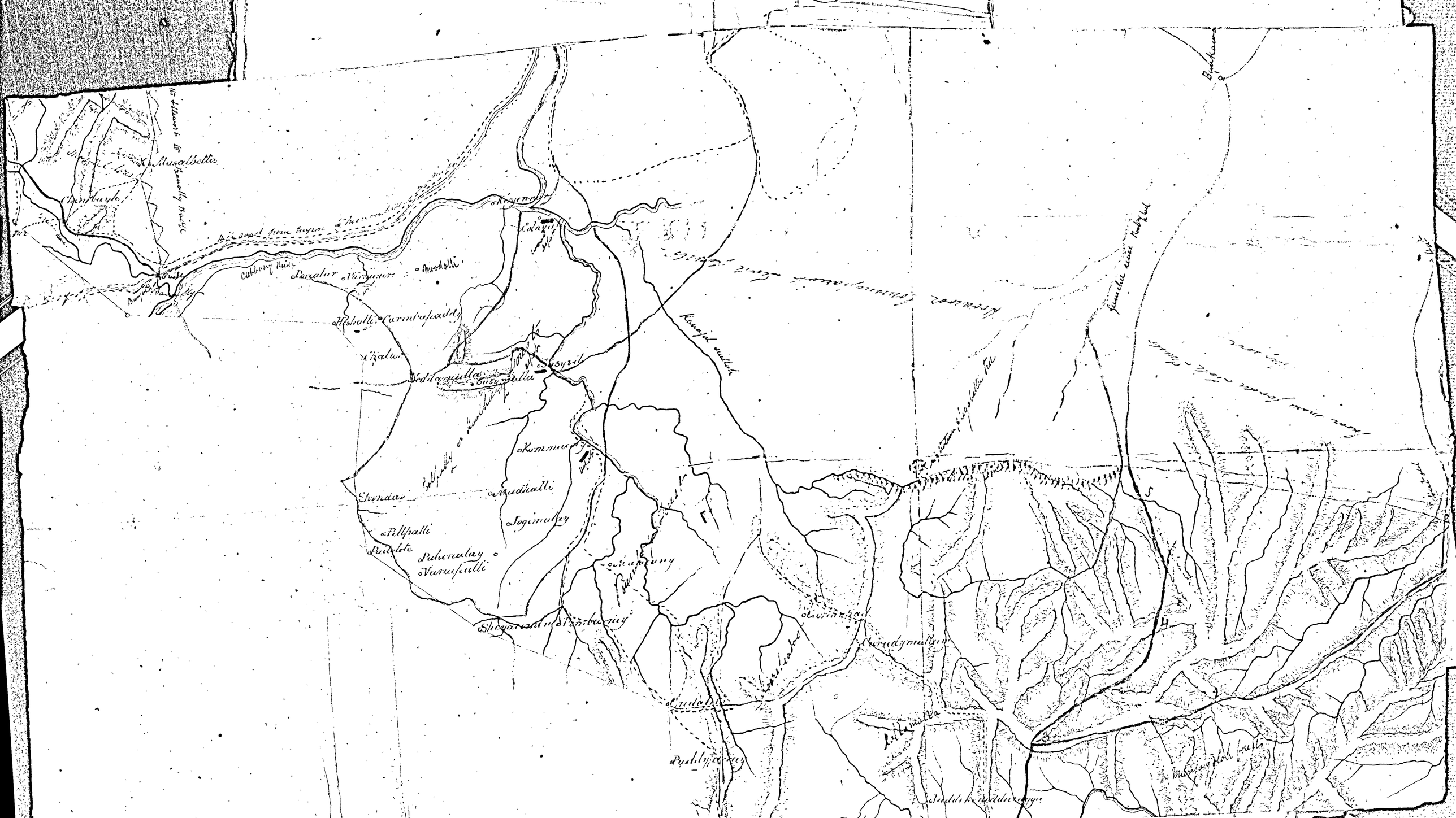
SEDASHEGHUR,
8th May 1862.

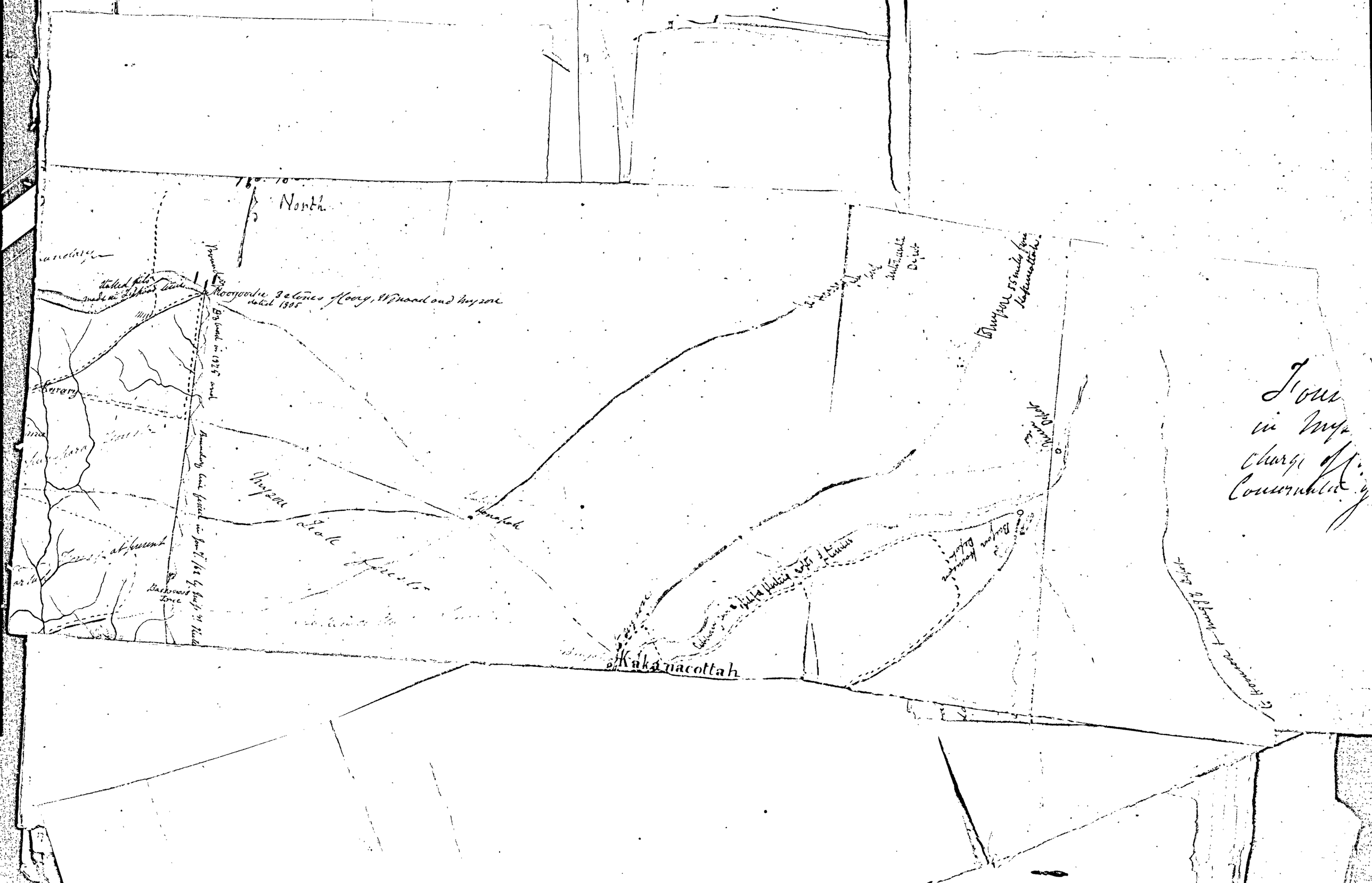
(Signed) S. MULLER,
Asst. Conservator, North Canara Forests.

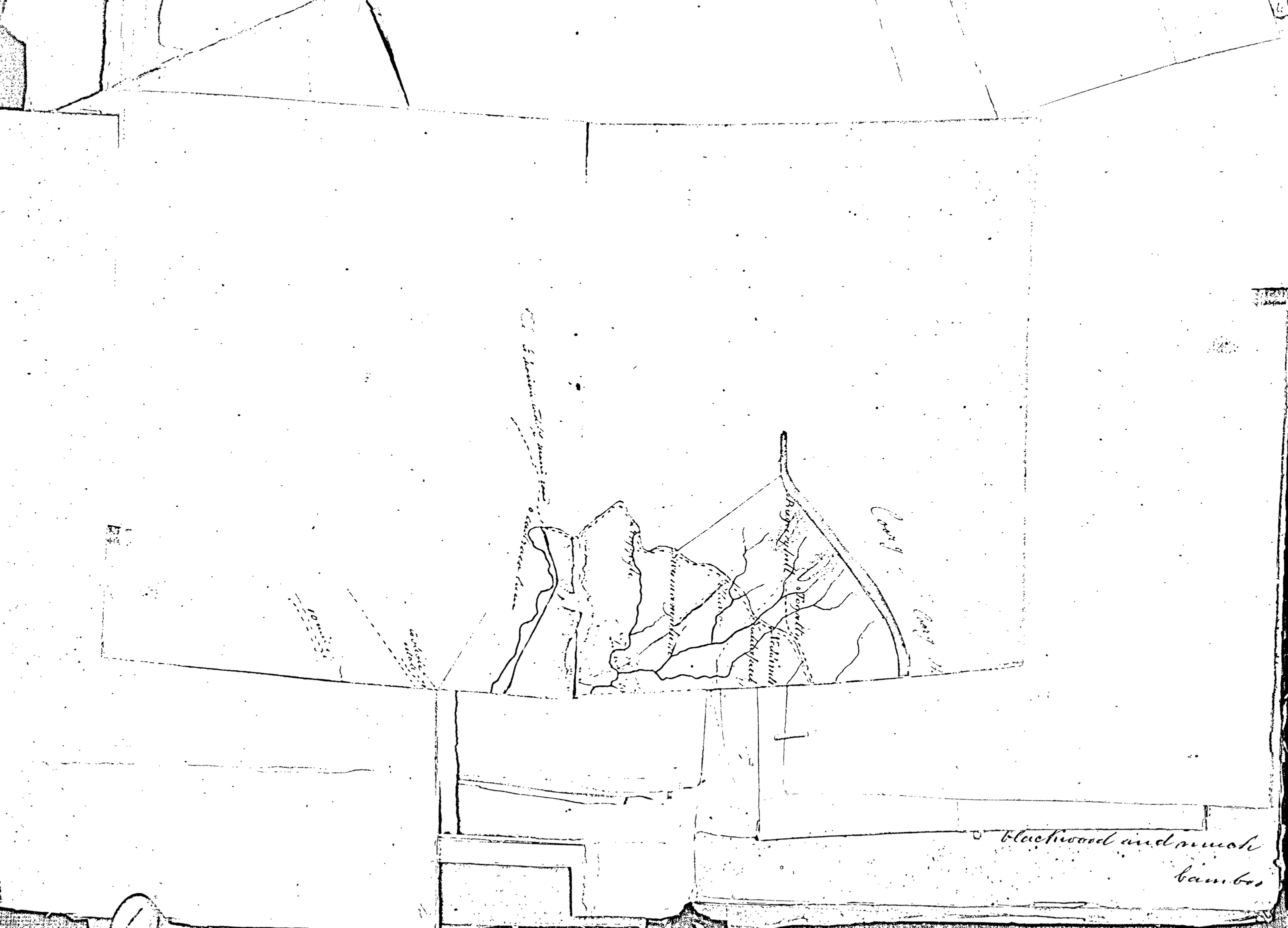
(Signed) J. H. GOLDFINCH,
Collector.

R. 1949/62.

Blackwood and marsh




North
Moorgoodie 3 allotments dated 1905
Kakamacottah


Blackwood and mimosa
bambos

Earl Cawdor

Boundary of

Earl of Bann

Boundary

1.2.3.4.5. Boundary stones

Messrs. Clerk & Llewellyn

Coast

Castle

Route

Cawdor 28 miles

Boundary

Earl of Cawdor

Boundary stones 1825 & marked in 1907

Boundary not yet cleared & marked with Boundary stones

Boundary to be reinstated & 2 Boundary stones

removed to the present Castle in 1933 & 34 Elgin Courier

Boundary

Boundary surveyed by the Ordnance Survey in July & August 1863.

Ordnance Survey

Office station

Boundary

Trunk Carriage

Main roads

... map of the Teak forests
...ne and Wynaad under the
... Captain A. Hunter acty. Assist
... of forests - May 1862

A Hunter Capt.
Assist. Cons. of forests
Mysore & Wynaad

Rev Dept

No 2040.

Proceedings of the Madras Government
Under date the 19th Sept. 1862.

Read the following
letter from the late Offg
Conservr of Forests.

Forwarding his
Annual report for 1861/62
and explaining that there
has been some delay in
the printing to account
for the Report not reaching
Govt by the 30th June.

(Here enter 5 July 1862 No)

The Government
proceed to review the
Report of the late Offg
Conservator of Forests
for the Official year 1861-62.

2 Wainaad Forests. Pp 2-3.

These forests consist
principally of Teak
but they contain an
abundance of fine
Blackwood and much
bamboo

bian bee jungle. They have received much damage from the depredations of hurricanes, and by the ~~system~~ practice called "Taking" of ~~planting~~ making temporary clearings for the clandestine cultivation of Taggee, but "Taking" seems to be on the decline. Paragraphs 2, 3 and 4 will be brought to the notice of the Collector thro' the Board of Revenue.

5th Para 5 is urged that the Forest and in charge of these Forests should, for Police purposes, be invested with Magisterial powers. This the Govt cannot grant. The

would be contrary to principle that the Conservator should adjudicate in his own cases

4 Mawsom Forest P. 6-11.

~~The question of making~~ has lately been transferred from the ~~Govt~~ new Mawsom Forest to the Conservator's Department ~~under control~~ direction and will be appropriately disposed of on a grant of 1,450 Rupees has recently been sanctioned with the Department Public Works for the completion of the Tambaca cherry Ghaut.

5 In Para 9 ~~on~~ in of the Report ~~mentions~~ major Morgan ~~the following observations~~

"That the boundaries of the different Government forests have not yet been decided." The

boundary

boundary line between
Wainad and Mysore
now finally determined
on on the order of Govt.
N° 1179 of the 8th July
last, but this remarks
seems to refer to the claims
advanced by certain
Devastanams and Ryots,
upon which the Director
of Revenue Settlement
has been directed to report.
Treasury and Settle-
ment parties have
now been withdrawn
from Wainad, but the
Director will report what
progress has been made
in the demarcation of
Forest Boundaries and
whether any arrange-
ments can be made by
the Department for
the

G O 166 of 31st Jany 1860.
" " 846 — 15th April 1862.

the final settlement
of the above claims.
It is ~~very~~ desirable
that the ~~boundaries~~ limits
of all the ~~every~~ Forests in this
country should be
~~clearly~~ defined where
practicable. The Conservator will report
what boundaries still
remain unsettled, and
he will also prepare
and publish for the
information of the
public a list of the
Forests specifying their
localities and the
principal trees to be
procured from them.

6 Mudumalai Forests

Para 15-18. These forests
are held on a lease
which expires in March
next,

X And the progress of the Survey
will tend to this result.

next, by which time ~~it is~~ it is anticipated that nearly the whole of the Teak for felling will have been cut. There is a large stock of timber on hand, lying in the Forest. This should be removed without delay, as it is stocked that all timber remaining in the Forest after the expiration of the lease will be forfeited to the proprietor Captain Beddome should take an early opportunity of visiting these Forests with a view to determine whether a renewal of the lease is desirable, judging from

The question of renewing the lease is now under the consideration of Govt.

from the large stock on hand, it would not seem to be necessary, but the question should be promptly considered and submitted for the orders of Govt. Financially Nilgiri alone exhibits a very small profit, but the wood in store has not been brought to account.

7 Sigur Forest. Pg. 22

The cuttings in this forest have been confined to sandalwood, the teak jungles having been exhausted by former contractors and requiring rest. Its receipts exceed its expenses by nearly 20,000 Rupees and Govt are assured that

that this profit balance will
be annually maintained.

8 South Canara Para 23-27.

These forests would not
appear from the Overseers
Report to be in a very
flourishing condition,
though young trees, with
taking care of, are said
to be springing up in
abundance. The forests
of this District should
be visited by the Con-
servator and separately
reported on.

9 Neilgherry Sholahs 28.31.

These Sholahs have
now been placed un-
-der the Assistant Con
-servator in charge of Pyzur
and Mundumalloor, and
a saving of more than
10000 Rupees has been
effected

G.O. 18 June 1862 No 1345.

3

effected by this arrange-
ment. The case of Messrs
Wilson and Co who purchased the
wood for a portion of
the Governor's shola for the purpose of
for supplying to the residents
of Ootacamund and who
subsequently petitioned
for the permission of a
portion of the purchased
money due on the plea that they
had been great losers
by the undertaking
by the purchase has been
disposed of in the Proc.
of Govt. 29 May 1862
No 1190. It was then
decided that Messrs
Wilson & Co must abide
by their contract, but
up to the date of the
report nothing had been done for the Kotagherry Sholahs but Capt. Beddome
report has since sub-
-mitted a scheme which
is under consideration.

10

10 Wellington firewood plantations Para 32-36-

Major Morgan shows that these plantations have altogether cost about 170 Rs an acre, whereas 60 Rs an acre is the utmost charge that should be allowed, and even that should include roads, ditches, tools &c.

The charge for supervision however has been out of all proportion to the operations. The total amount that has been expended in the year is very insignificant. "Hardly any "thing has been done: "in fact since Novr 1st "not a coolly has been "employed, as without "funds it was impossible "to carry on work." This is a very bad state of things, and should have been reported to Govt before. The plantations present a very poor appearance and but little change is observable since they were first authorized in 1859- Captain Beddome's special attention will be drawn to this condition of these plantations-

11 The Cinchona Experiment (Para 36-58) will be noticed separately-

12 Anamallai Forest- Para 59-66- The result of the operations in this Forest during the year under review is very unsatisfactory- Major Morgan advances various reasons for

for the falling off in the
~~Year~~ Revenue profits, but
it appears to be chiefly
owing to the illness of
the Officer in charge.
The other reasons
given would apply equally
to preceding years.
The Acting Conservator
should visit the Forest
at an early date and sub-
mit a further report on
its existing condition.
13 Madura-Para by- The
forests of this District
should be provided with
a regular establishment.
Their financial state
is satisfactory, and a
further increase of Revenue
is anticipated.
14 Cuddapah & North
Arcot Forests. P68-69- The
seigniorage

16 July
G.O. 16 ~~Aug~~/82 No 1037.
P. 2.

seigniorage on Red san-
ders-wood has been
fixed at 6 Rupees per
bandy-load in both
Cuddapah and North
Arcot, and the jungles of
the former District, with
those of the latter con-
tiguous to it have been

G.O. 27 June/82 No 1281

placed under a single
officer.
15 The conservancy
of the Cuddapah jungles
has been delayed by the
~~the~~ misconduct of the
Assistant at Rollamcherry.
Further proceedings of
19 May last No 1105 the
Government

Government sanctioned the prosecution of that officer, but in a more recent proceeding, taking into consideration the state of his health at the time the frauds were committed, they withdrew the order for his prosecution and directed that he should be dismissed.

G.O. 9 Aug^t/62 N^{o}1699

16. Nellambore Teak Plantations - Para 70-82.

These plantations are now under the care of Mr. Ferguson whose appointment received the confirmation of Govt. in their proceedings of the 26th May last N^o 1110

N^o 1110. Some progress has been made in thinning the plantations which are stated to be suffering severely from over-crowding. Great attention should be paid to these thinning operations, and application may be made for such extra funds as can be profitably expended.

17. In para 79 it is proposed to employ at Nellambore some of the elephants which are maintained by the Commissariat at Calicut and Mallipuram but which are said not to be required by that Department. This application will be disposed of in the Military Department.

18. The receipts from these plantations are very trifling, amounting only to Rs 808, as the sales which were conducted by

by the Collector were not effected in time to appear in the annual returns. Major Babington is of opinion that the 50,000 saplings cut in thinning the plantations will not fetch much, and "in fact "that many of them are not "worth the carrying away". Major Morgan on the contrary reports that "the thinnings last "year realized 4 annas each on "an average; and this year, they "should bring in a little more, "the trees being somewhat "larger". Fifty thousand saplings even at the lower rate would bring in 12,500 Rs, but the sale proceeds will appear in the current year's accounts. The item of expenditure estimated by Major Babington at Rs 5,358 while in the general statement submitted by Major

Major Morgan it appears as Rs 3,779. As this is an experiment of importance the annual reports should in future exhibit the receipts and charges up to date, as well as within the year, and they should also show the number and probable value of the trees standing.

19 Salem. Para 83-96. Major Morgan states that a profit of Rs 42,947 has been realized from the forests of the Salem District, but in the Statement annexed to his Report the balance in favor of Govt is entered as Rs 44,609. In either case the financial result is satisfactory, but Captain Beddome will be careful to enter the correct amount in his next report. In future financial statements should exhibit the results of the year in comparison with the preceding year.

The

20. The sanction of the Government of India to the revised Establishment for this District was communicated to the Acting Conservator in an order dated 14th June 1862 No. 1312, and more recently a new code of rules for the conservancy of its forests has been specially authorized. The Government wish to be informed what are the "forest products" alluded to in para. 96.

9th August 1862 No. 1645.

21. The Achamaad forests at Denkinottah which are said to be of considerable value are at present closed on account of the impracticability of the Pennagaram Ghaut. In a former report Major Morgan recommended that the ghaut which is at present merely the rocky bed of a watercourse should

vide para 8 of G.O. No. 970 of 30th April 1861.

should be retraced, and the road at the foot improved. The Government desire further information on this subject with estimate of the cost and probable consequent receipts.

22. Chennat Nair Forest. Para 97. This forest has been taken by the Railway Co. on a lease for 3 years. It is now suggested that at the expiration of the lease the forest should be put under regular conservation, but the Government presume that this proposal will be brought before them in a more definite form.

23. Paragraph 98 enlarges on the subject of conservancy. These remarks were made will be considered when the reports called for* from the Collectors and Board of Revenue are received by the

* G.O. 1st May 1862 No. 933. para 13.

The Board of Revenue will be requested to expedite these reports. Major Morgan here adduces an instance of what conservancy may do for the returns of a forest, a case in which Captains Beddome and Brunton recommended that they should undertake a contract which would have been disastrous to the Revenue. This might well have been omitted. The shortcomings of officers should be reported at the time, when they can defend themselves and when Government can punish proved dereliction of duty. They should not be brought forward in any report of actual operations.

24. Paragraph 99 contains a suggestion for the preservation of wooden sleepers by fitting small pieces of galvanised sheet iron under the chair. This will be communicated to the Financial Railway Department for the information of the Railway authorities.

25. In paragraph 101 Major Morgan brings to notice the fine quality of the Satin wood to be met with near the foot of the Anamallais, and he recommends that a few hundred loads should be cut for the Madras Market. This is a question to be decided by the Conservator himself. There can be no objection to his felling the wood as proposed provided the cost can be met from the allotment contained in the Budget.

26. Paragraph 103 deals with the subject of waste lands

lands and Major Morgan states his opinion that it would be impolitic to reserve systematically all Forest land and that it should be given on condition that the Jungle above 6,000 feet should not be cut, and that for every laundy load of wood sold a seignorage of one Rupee should be paid. The Government have already authorised the reservation of the Deni Sholah, and they will be prepared similarly to reserve other Forests that may be required for public purposes, which where wood is sold is to the people for Climate, be sold they prefer selling it outright with all upon it. The reservation of the timber would lead to endless disputes and its value will always

always be realized at the sale of the lands.

27. A Map of the Reserved Forests accompanies Captain Amber's very complete and interesting report, and Major Morgan recommends (para 106) that it should be lithographed Captain Amber however states that he has been unable to mark off the Forests belonging to Government on account of the uncertainty which exists regarding the boundaries. The Government therefore defer passing any orders regarding the Map, pending the submission of the reports called for in Para 5 Supra.

28. Major Morgan expresses himself well satisfied with the exertions of the assistant Conservators and his other subordinates.

Financial

29. Financial results - para 109.

The profits of the year considerably exceed those of the preceding years as exhibited in the margin, and so far the results of Conservancy are satisfactory. North Canara which contains the finest and most profitable forests has now been transferred to the Bombay Presidency, and if the profits of that district be taken at the same amount as in the previous year and because the value of the wood in store appears to have been entered in the books, for the sake of comparison, the total profits will be reduced from Rs 4,23,639 to Rs 2,03,585. Even after this deduction the profits of 1861-62 show a satisfactory excess over the preceding years.

	Rs
1859-60	1,98,294
1860-61	1,83,731
1861-62	4,23,639

30. The value of the Timber on hand is estimated at 2,69,000, but this is exclusive of the wood stored in North Canara ~~which is valued at Rs 3,06,163~~

See Statement submitted with the Acting Conservator's letter recorded in G. O. 18th June 1862, No 1341.

~~and~~ for which the Bombay Government have to account.

G. O. 9th July 62 No 1500.

There is in hand 9,000 Rs worth of Anamallai wood. Had this been sold within the year, as Major Morgan remarks, the operations in those Forest wouls have presented a very different result. In fact instead of a loss of 20,000 Rs a profit of 70,000 would have been exhibited. Major Morgan says 50,000, but he appears to have deducted the expenses of the year, 42,200 Rs, which have already been brought to account, and he has omitted to make allowance for the loss now standing in the financial statement. The profit to be derived from the sale of this timber will appear

in the accounts for next year.

MC

1 6 Copies to the Comrs of Forests & Crofts
14 — Bog of Ruel with 6 Copies of the Rep.
13 — Do of Ruel to Mr Cattanach with 3 do
7 — Mills Dept. with 2 do
5 — Finl. Railway Dept. with do
21 — Public Works Dept. with do
1 — E. Balfour Esq. M.P. 25 Gt Geo. St

13/19/214

4221/21-S

Annual Report
Forest Conservancy for
1861/62.

Revenue 1862 Depot
Pros: of Govt for Septr.

No 2040.

Pros: of the Madras Govt.
Dtd 9th Septr: 62.

From the Offg Conservator of Forests
No 8 Dated 2nd Septr 62 No 2840.
in Ftr.

Forwarding Annual Report Forest
No 2987 (Ultimo) for perusal.

Annual Report on the Forests for 1861-62.

536