(1) Number of pages 22 pages (11 Sheets).

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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. 1106, Revenue B.P. No.	Press. Mis.
Dated 20-7-1878.	197 .

Not to be folded or roughly handled

Archives I—5,806—24-2-78.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

20th July 1878, No. 1,106.

Read the following paper:—

No. 209. Proceedings of the Board of Revenue, dated 13th May 1878, No. 1,289.

Read the following letter from R. W. BARLOW, Esq., Acting Commissioner of the Nilgiris, to C. A. GALTON, Esq., Acting Secretary to the Board of Revenue, dated Ootacamund, 24th April 1878, No. 41:—

I HAVE the honor to forward, for the information of the Board, the Inspection Report (No. 32, with two enclosures) of the Conservator of Forests on the Nilgiri, Mudamullay, and Segoor Forests for the year 1878.

2. Although I have already visited several of the plantations, I do not wish to record any opinions regarding them until I have had further experience here.

3. I however quite endorse what Colonel Beddome says regarding the superiority of the *Eucalyptus globulus*.

ENCLOSURE No. 1.

From Lieutenant-Colonel R. H. BEDDOME, Conservator of Forests, to C. G. MASTER, Esq., Secretary to Government, Revenue Department, dated Ootacamund, 4th April 1878, No. 32.

I HAVE the honor to inform you that I have lately inspected all the plantations on the Nilgiri Hills, and submit herewith my remarks on the same.

OOTACAMUND PLANTATIONS.

2. *Aramby*, 38 *Acres*, *Eucalyptus* 6′×6′.—This has been very judiciously thinned out by Mr. Gass; the growth is excellent, and it will yield superior high timber; it will continue to be treated as a timber forest; further thinning will shortly be necessary.

3. *Governor's Shola* (*including Hooputty*), 80 *Acres*.—All the Acacias in this should be felled, if necessary, to meet the fuel demand and that area replanted with *Eucalyptus globulus*.

Of the *Eucalyptus globulus* 15 acres only is 6′×6′; this I would reserve for high timber, and it requires thinning at once: 35 acres are planted 9′×9′; this should, I think, be treated as firewood coppice and felled entirely over every five or six years according to the fuel requirements.

4. *Snowdon*.—Of the 7 acres which is all Acacia a portion has been felled for fuel lately; the remainder is reserved as it protects the head of a stream.

5. *Marley Mund*, *about* 9 *Acres*.—All the *Acacia melanoxylon* had suffered much from loranths and has been felled; the Eucalypti are left standing.

6. *Sheffield*, 15 *Acres*, *Acacia melanoxylon*.—This is being felled for the present fuel supply; it should be replanted with Eucalyptus, as the melanoxylon does not seem to grow from the stool.

7. *Madana*, 8 *Acres*.—Nearly all the wattle (*Acacia dealbata*) was felled out for fuel in 1876-77. The *Acacia melanoxylon* is still standing but available for fuel when required; it is doubtful if we can replant all this with Eucalyptus as the wattle roots would check growth; the wattle coppice will give small firewood.

8. *Brooklands*, 10 *Acres*, *Acacia*.—Has now been nearly all felled since my last report; there were a few large Eucalyptus which have been reserved. The wattle roots would probably frustrate any attempts to plant Eucalyptus. Small coppice wood will be available from time to time.

9. *Norwood*, 26 *Acres*, *Eucalyptus globulus*.—Reserved as an accessory to Government House (*vide* G.O., No. 2,634, of 4th September 1877).

10. *Cally*, 14 *Acres*. 6′ × 6′, *but suffered from fire*, *Eucalyptus globulus*.—No remarks since last report. Can either be treated as high timber or as coppice for fuel.

11. *Arnical*, 11 *Acres*, 9′ × 9′, *Eucalyptus globulus*.—Should be treated as a coppice fuel plantation.

12. *Andy.*—No remarks since last report.

13. *Bakie*, 33 *Acres*, 6' × 6', *Eucalyptus globulus.*—Growing splendidly. Should be reserved for high timber; requires thinning out shortly.

14. *Chowghat Cally*, 30 *Acres*, 6' × 6', *Eucalyptus globulus.*—Should be reserved for high timber and requires thinning.

15. *Koolie, about* 58 *Acres, Eucalyptus globulus* 6' × 6'.—There are now about 40,000 trees, 17,000 having been put down since the last report; July, our chief planting month, being very dry, many casualties occurred but these were all replaced. There are now 23,000 pits still to be planted to complete this plantation, but as Buthery sholah is to be planted up this coming season, this will have to wait till 1879-80 as we have not sufficient plants.

16. *Buthery.*—This shola was being felled at the date of my last report and it was found necessary to fell nearly all of it. In June 1877, 20,000 *Eucalyptus globulus* were put down, but owing to the bad season about 3,500 failures occurred which have mostly, however, been replaced; the remainder of this shola will be planted up this coming season, and plantation should be treated as high timber.

WELLINGTON PLANTATIONS.

17. *Bleakhouse*, 235 *Acres*, *Acacia melanoxylon and dealbata.*—150 Acres were planted about 1856-57 at 4'×4', and 75 acres between 1864 and 1873 at 6'×6'. All the wattle has been cut out for fuel and the *Acacia melanoxylon* has been thinned, all the trees suffering from parasites being taken out.

The growth here is very poor for its age, and this plantation proves how very inferior the *Acacia melanoxylon* is to *Eucalyptus globulus* either as timber or firewood; the older portions were originally planted too close and for many years little or no attention was paid to thinning; but besides this nearly all the *melanoxylon* trees suffer terribly from the loranth parasite, which renders them sickly and retards their growth, and unless they are cut down they eventually die; the largest tree that I could find was only 5'-8" in circumference at 6 feet from the ground which is very poor growth for 21 or 22 years compared to Eucalyptus; the measurement of some others amongst the largest trees were as follows:—4'-7", 3'-10", 4'-2", 4'-8", 3'-8", the average girth in the older portion of this plantation taken from the measurement of 30 trees as they came is 2'-11".

It is no use attempting to keep this plantation for timber as the trees will continue to suffer from parasites and must be felled when badly attacked; it should all therefore come down shortly and when cleared must be replanted with *Eucalyptus globulus.*

18. *Newman*, 35 *Acres*, *Eucalyptus globulus* 6' × 6', 25 acres of which were shola, 10 acres grass land; fire unfortunately got into the outskirts of this last year and much damaged some 2 or 3 acres which necessitated the taking out of a great many trees which were more or less damaged by fire, so that any one now entering it by the road from Wellington (the side where the fire occurred) would fancy that it had been thinned most injudiciously; the rest requires thinning, but this was in progress at the time of my visit; the growth here is splendid and fine building timber will be available in time; it will all be treated as a high timber plantation.

19. *Rallia*, 60 *Acres.*—No remarks since the last report.

20. *Old Forest*, 200 *Acres.*—The growth here from the wide planting is so crooked and contorted that the plantation can never be treated as high timber; it will be far better to clean fell over as many acres as may be required for the fuel supply and then replant alternately with the coppice, which will give 4½' × 4½' instead of 9' × 9' and we shall get straight growth; at present the department has commenced thinning out only for the fuel supply.

21. *Blackbridge*, 48 *Acres*, *Eucalyptus* 6' × 6'.—Many of the casualties have been replaced and 17,000 trees put down in 1876-77.

22. *The Rock*, 8 *Acres*, *Eucalyptus* 6' × 6'.—No remarks since last report.

23. *Tippucuchy*, 35 *Acres*, *Eucalyptus* 6' × 6'.—No remarks since last report; growth good.

24. *Little Rallia.*—A new plantation; since my last report 10 acres of *Eucalyptus globulus* planted at 6' × 6' on grass land situated near Rallia and Newman.

25. Last season was a bad planting year. July, our chief planting month, was about the driest July on record, only one inch of rain having fallen; there was very much rain in September, October, November, and even December, but these months are too late for planting.

26. It has become very apparent that the planting of *Acacia melanoxylon* either for timber or firewood will never be as profitable as the planting of Eucalyptus; its growth to begin with is very much slower, and it is everywhere attacked by the Loranth, which parasite in time kills the

tree but very soon renders it sickly; this tree, besides, does not appear to grow at all well from coppice, unless when cut very young.

27. The Wattle (*A. dealbata*) grows very readily from the stool, but it comes up such a dense mass of small twig-like stems that its treatment is very unmanageable, and without great expense in constant pruning and careful management it cannot be depended upon except for very small firewood, and it should only be planted where a constant supply of such is required, or as a shelter against the monsoon winds.

28. The *Eucalyptus globulus* and perhaps one or two other species of this genus are the only trees that we should plant in future; they grow most readily from the stool in every instance; if cut before 9 or 10 years of age, sending up a few strong shoots which can easily be pruned down to 1 or 2.

29. In G.O., No. 2,634, of the 4th September last, it is stated: "The Conservator will issue the necessary instructions for preserving all trees likely to grow into fine timber for this purpose, only inferior trees should be felled for the fuel market." This is rather vague, and I should like more direct orders; certain plantations must be treated as *fuel* and certain ones as *high timber*; it will be very expensive and unsatisfactory if we can only draw our fuel from the thinnings of all the plantations, and the stools of trees so thinned out cannot be expected to make rapid coppice growth when entirely overtopped and shaded by the trees left standing. To get the greatest profit out of a Eucalyptus plantation it should be clean felled over every five or six years, when the yield (as shown in paragraph 30 of my last report) will be at least 100 tons per acre.

30. The statement below shows which of the Ootacamund plantations should be treated as *fuel* and which as *high timber*, and I request sanction for putting this arrangement in force. We must have some plan of this sort to work upon, as the demand for fuel will always be much greater than that for timber, and we have not sufficient supervision to treat all as timber plantations should be treated. I have reserved all the 6' × 6' Eucalyptus which is of straight growth for timber, and these plantations will be periodically thinned out, all the overtopped and poorer trees being taken out at each thinning, the other plantations will be cut bodily over in regular rotation.

Ootacamund Plantations.	To be treated as Fuel.	To be treated as High Timber.
Governor's Shola	30 acres Acacia. 35 „ Eucalyptus.	15 acres Eucalyptus 48 „ „
Aramby	7 acres Acacia.	...
Snowdon	10 „ „	...
Marley Mund	15 „ „	...
Sheffield	10 „ „	38 acres Eucalyptus.
Brooklands	...	14 „ „
Bakie	...	...
Cally	9 acres Eucalyptus.	
Arnikal	More or less a failure as too exposed, but firewood will be available.	...
Andy	...	30 acres Eucalyptus.
Chowghat Cally	...	58 „ „
Koolie	...	80 „ „
Buthery	116 Acres.	283 Acres.
Total ...		

31. The firewood supply is certainly the most important question at present, and we cannot at all guess what the timber demand is ever likely to be; at present it is almost *nil*, and I do not anticipate myself that it will ever equal the supply. Vast quantities of firewood as well as timber are grown privately in and around the station, and I anticipate that the 116 acres now to be treated as firewood will suffice together with the thinnings of the timbertplantations; but if the officer in charge finds that it falls short we shall have to extend.

32. With reference to Wellington plantations, Bleak House, Rallia and the Old Forest should be treated as fuel at present, and the remainder as timber; but here the demand for fuel will not, I expect, equal the supply proposed. I request sanction however for the arrangement proposed in paragraph 20 with reference to the Old Forest plantations; we can then cut it down acre by acre as far as the demand allows, replanting alternately with the coppice shoots so that

12. *Andy.*—No remarks since last report.

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in time it can be turned into a good timber plantation; it will be a great pity to allow it to grow up in its present state as all the trees are more or less twisted and crooked; the plantation is in the best soil and shows the quickest growth of any on the Hills.

33. The lower or older portion of the Aramby plantation is now a fine example of what a Eucalyptus timber plantation should be at its age, and should be visited by any one interested in the subject.

34. A private gentleman at Ootacamund lately cut down a Eucalyptus tree which he had planted with his own hands exactly twelve years previously, and he informs me that he cut out of it 144 cubic feet of marketable timber, giving a rate of growth of 1 cubic foot per month.

35. The area of the different plantations is only approximate; all the Ooty and some of the Wellington plantations have been lately surveyed by the Survey Department, but their survey areas are squared off and include often some of the surrounding grass land and do not therefore show correctly the acreage of the planted area only.

Year.	Receipts.	Expenditure including establishment.
	Rs. A. P.	Rs. A. P.
1876-77	11,101 2 10	8,491 11 10
1877-78	7,288 15 9	10,026 6 5

36. The marginal statement shows the receipts and expenditure on these plantations since my last report —(*vide* G.O., No. 2,634, of 4th September 1877).

37. I have also lately visited the Mudumallay and Seegoor forests, the Mudumallay Teak plantations and the Seegoor Sandalwood plantations.

38. In connection with these I have nothing particular to report on or to notice since my last report (G.O., No. 1,301, of the 20th September 1876). An important question with reference to the working of the extreme western portion has arisen, but this is before Government in paragraph 9 of my Wynaad report (*vide* Proceedings of the Board of Revenue, No. 220, dated 25th January 1878).

39. With reference to the G.O., No. 2,678, of the 8th of September last, I forward plan and estimate* of the Ranger's lodge for Mudumallay; the estimate amounts to Rupees 2,980, but can, I think, be reduced by our using our own jungle timbers or some of the refuse Teak.

* Enclosures Nos. 1 and 2.

40. In the Mudumallay and Benni forests, felling, dragging and carting of timber have been carried on, and since my last report 34,627 cubic feet have been delivered to the Public Works Department and other departments, and 8,269 cubic feet to the public.

41. *Seegoor Refuse Timber.*—The total quantity was originally 8,265 cubic feet; the merchant who purchased at 6 Annas per foot removed, prior to April 1876, 2,133 cubic feet on payment of Rupees 800, and the balance, 6,132 cubic feet, has been made over to him subsequently on payment of Rupees 2,299-6-0. Thus the accounts of the Seegoor refuse timber have been finally settled.

42. *Mudumallay Refuse.*—The total quantity has been 31,646 cubic feet; of this 19,862 cubic feet have been sold to a Mysore merchant at 7¼ Annas per foot, and the amount realized therefore is Rupees 9,000.

43. *Seegoor Forests.*—The usual felling of Saudalwood has proceeded; 2,402 maunds have been prepared since my last visit, for which the contractors have paid 14,246 Rupees.

44. *Mudumallay Teak Plantation.*—Thinning, fire-tracing, and weeding have been carried on, but there has been no extension; the expenditure during the past two years has been Rupees 903.

45. *The Benni Teak Plantation.*—The works done here since my last visit were weeding, pruning, and fire-tracing; no extension made; the expenditure during the last two years has been Rupees 1,904.

The total expenditure on the two plantations up to date amounts to Rupees 25,557; the expenditure on weeding should shortly be reduced to a minimum, but fire-tracing will be necessary for some years.

46. *Seegoor Sembragoddi Sandalwood Plantation.*—All thoroughly weeded and pruned, and trees removed from the trees; about 3,000 casualties occurred, which were replaced; a broad fire-trace was cut in December 1876 and December 1877; the expenditure including pay of temporary watchers in the last two years has been Rupees 1,464; expenditure up to date Rupees [illegible]

47. The statement below gives the receipts and charges of the Mudumallay forests from the commencement up to date; these forests were worked by the Public Works Department from 1st March 1864 to 31st October 1868, when they were handed over to this department. It has

been customary to debit the whole of the Deputy Conservator's salary and his office establishment against this forest, and the deficit is partly owing to this:—

Year.	Receipts.	Expenditure including Establishment and the rental of Rupees 3,500 per Annum.
	Rs. A. P.	Rs. A. P.
1861-62	37,936 5 1	34,346 14 7
1862-63	62,731 5 0	44,023 11 5
1863-64	15,287 6 5	37,292 7 4
1864-65	48,846 15 6	43,854 12 0
1865-66	67,570 11 6	64,891 2 10
1866-67	69,611 5 2	47,072 3 7
1867-68	64,914 9 7	51,162 14 9
1868-69	60,014 7 5	49,794 10 7
1869-70	47,978 7 4	47,380 4 6
1870-71	15,184 12 2	39,617 6 0
1871-72	21,528 0 0	44,521 7 8
1872-73	46,043 8 6	46,163 13 9
1873-74	41,823 0 0	39,429 0 0
1874-75	20,905 12 10	43,146 1 0
1875-76	53,928 1 8	36,797 5 0
1876-77	46,516 4 5	52,193 7 4
1877-78	40,276 10 10	41,901 10 8
Total ...	7,61,097 11 5	7,66,889 5 0
(Minus)		— 99,395 2 7
(Plus)		+ 93,602 5 0
Balance against the Forests ...		5,792 13 7

48. The statement below gives the receipts and charges of the Seegoor Forests; prior to 1873-74 they were worked with Sattiamangalam and the accounts lumped together so that no reliable data can be offered:—

Year.	Receipts.	Expenditure including Establishment.
	Rs. A. P.	Rs. A. P.
1873-74	2,194 0 0	2,800 0 0
1874-75	6,672 0 0	4,032 0 0
1875-76	7,815 0 0	4,756 0 0
1876-77	9,470 2 8	3,883 1 9
1877-78	7,275 2 0	6,338 12 0
Total ...	33,426 4 8	21,809 13 9
(Plus)		+ 12,222 6 11
(Minus)		— 606 0 0
Balance in favor of the Forests ...		11,616 6 11

(Signed) R. H. BEDDOME, Lieut.-Col.,
Conservator of Forests.

No. 33.

FORWARDED to the Secretary to Government, Revenue Department, through the Commissioner of Nilgiris and the Board of Revenue, with reference to Rule VIII published with G.O., No. 1,662-A, of the 19th November 1875, Revenue Department.

OOTACAMUND,
4th April 1878.

(Signed) R. H. BEDDOME, Lieut.-Col.,
Conservator of Forests.

ENCLOSURE No. 2.—Plan of Ranger's Lodge.

ENCLOSURE No. 3.—Estimate.

THE Inspection Report above recorded will be submitted for the orders of Government.

2. The Board concur with the Conservator in giving preference generally to the Eucalyptus in future plantings. His mode of providing (paragraphs 29 and 30) for timber and firewood commends itself, and the Board conceive that it will meet the wishes of Government.

3. The proposal made in paragraph 20 is approved.

4. The growth recorded in paragraph 34 is truly encouraging, but it was presumedly a solitary and not a plantation crowded tree.

5. The Conservator thinks that his present provision for firewood is sufficient. No data for a conclusion are supplied, such for instance as the ruling prices of firewood on the Hills now and formerly, and the comparative pillage of the Government natural sholahs now and formerly. It is desirable that this question should be fully considered before it is decided to stay planting extension on the Nilgiris.

6. The plan and estimate for a Ranger's lodge (paragraph 39) are approved.

(True Copies and Extract.)

(Signed) J. STURROCK,
Acting Sub-Secretary.

No. 210.

ORDER THEREON, 20th July 1878, No. 1,106.

Forests, No. 13.

THE Conservator's recommendations as to the treatment of the plantations are accepted in modification of paragraph 2, G.O., 4th September 1877, No. 2,634.

2. All Government sholas which have been felled should be gradually renewed with *Eucalyptus globulus* and the full area of all surveyed plantations be planted up with this tree.

3. It seems probable that, apart from fuel and timber requirements, planting will have to be undertaken on these hills to counteract the effects of the growing denudation of natural woods.

The Conservator will consider this matter and make such proposals as he may think fit, and as means and suitable sites admit.

4. The plan and estimate for a Ranger's house are approved and sanctioned subject to the addition of the necessary out-houses.

(True Extract.)

(Signed) C. G. MASTER,
Secretary to Government.

To the Board of Revenue.
" the Conservator of Forests.

Exd. W. J. Lewis.

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Govt. of {1878} Madras.

REVENUE.

To

THE BOARD OF REVENUE,

&c., &c., &c.

Dated July 26th.

Read.

G.O. 26th July 1878, No. 3,106.

JULY.

No. 209-210.

Nilgiri, Mudumalay, and Segoor Forests.
Passing orders on Proceedings of the Board of Revenue submitting Conservator's Inspection Report on the —.

Vide ent 2628.

No. 1,289.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 13th May 1878.

Read the following letter from R. W. BARLOW, Esq., Acting Commissioner of the Nilgiris, to C. A. GALTON, Esq., Acting Secretary to the Board of Revenue, dated Ootacamund, 24th April 1878, No. 41 :—

I HAVE the honor to forward, for the information of the Board, the Inspection Report (No. 32, with two enclosures) of the Conservator of Forests on the Nilgiri, Mudamullay, and Segoor Forests for the year 1878.

2. Although I have already visited several of the plantations, I do not wish to record any opinions regarding them until I have had further experience here.

3. I however quite endorse what Colonel Beddome says regarding the superiority of the *Eucalyptus globulus*.

ENCLOSURE No. 1.

From Lieutenant-Colonel R. H. BEDDOME, Conservator of Forests, to C. G. MASTER, Esq., Secretary to Government, Revenue Department, dated Ootacamund, 4th April 1878, No. 32.

I HAVE the honor to inform you that I have lately inspected all the plantations on the Nilgiri Hills, and submit herewith my remarks on the same.

OOTACAMUND PLANTATIONS.

2. *Aramby*, 38 *Acres*, *Eucalyptus* 6′×6′.—This has been very judiciously thinned out by Mr. Gass; the growth is excellent, and it will yield superior high timber; it will continue to be treated as a timber forest; further thinning will shortly be necessary.

3. *Governor's Shola* (*including Hooputty*), 80 *Acres*.—All the Acacias in this should be felled, if necessary, to meet the fuel demand and that area replanted with *Eucalyptus globulus*.

Of the *Eucalyptus globulus* 15 acres only is 6′×6′; this I would reserve for high timber, and it requires thinning at once: 35 acres are planted 9′×9′; this should, I think, be treated as firewood coppice and felled entirely over every five or six years according to the fuel requirements.

4. *Snowdon*.—Of the 7 acres which is all Acacia a portion has been felled for fuel lately; the remainder is reserved as it protects the head of a stream.

5. *Marley Mund*, *about* 9 *Acres*.—All the *Acacia melanoxylon* had suffered much from loranths and has been felled; the Eucalypti are left standing.

6. *Sheffield*, 15 *Acres*, *Acacia melanoxylon*.—This is being felled for the present fuel supply; it should be replanted with Eucalyptus, as the melanoxylon does not seem to grow from the stool.

7. *Modana*, 8 *Acres*.—Nearly all the wattle (*Acacia dealbata*) was felled out for fuel in 1876-77. The *Acacia melanoxylon* is still standing but available for fuel when required; it is doubtful if we can replant all this with Eucalyptus as the wattle roots would check growth; the wattle coppice will give small firewood.

8. *Brooklands*, 10 *Acres*, *Acacia*.—Has now been nearly all felled since my last report; there were a few large Eucalyptus which have been reserved. The wattle roots would probably frustrate any attempts to plant Eucalyptus. Small coppice wood will be available from time to time.

9. *Norwood*, 26 *Acres*, *Eucalyptus globulus*.—Reserved as an accessory to Government House (*vide* G.O., No. 2,634, of 4th September 1877).

10. *Cully*, 14 *Acres*, 6′ × 6′, *but suffered from fire*, *Eucalyptus globulus*.—No remarks since last report. Can either be treated as high timber or as coppice for fuel.

11. *Arnikal*, 11 *Acres*, 9 × 9', *Eucalyptus globulus*.—Should be treated as a coppice fuel plantation.

12. *Andy*.—No remarks since last report.

13. *Babie*, 33 *Acres*, 6' × 6', *Eucalyptus globulus*.—Growing splendidly. Should be reserved for high timber; requires thinning out shortly.

14. *Chowghat Cally*, 30 *Acres*, 6' × 6', *Eucalyptus globulus*.—Should be reserved for high timber and requires thinning.

15. *Koolie*, *about* 58 *Acres*, *Eucalyptus globulus* 6' × 6'.—There are now about 40,000 trees, 17,000 having been put down since the last report; July, our chief planting month, being very dry, many casualties occurred but these were all replaced. There are now 23,000 pits still to be planted to complete this plantation, but as Buthery sholah is to be planted up this coming season, this will have to wait till 1879-80 as we have not sufficient plants.

16. *Buthery*.—This shola was being felled at the date of my last report and it was found necessary to fell nearly all of it. In June 1877, 20,000 *Eucalyptus globulus* were put down, but owing to the bad season about 3,500 failures occurred which have mostly, however, been replaced; the remainder of this shola will be planted up this coming season, and plantation should be treated as high timber.

WELLINGTON PLANTATIONS.

17. *Bleakhouse*, 235 *Acres*, *Acacia melanoxylon and dealbata*.—150 Acres were planted about 1856-57 at 4 × 4', and 75 acres between 1864 and 1873 at 6' × 6'. All the wattle has been cut out for fuel and the *Acacia melanoxylon* has been thinned, all the trees suffering from parasites being taken out.

The growth here is very poor for its age, and this plantation proves how very inferior the *Acacia melanoxylon* is to *Eucalyptus globulus*, either as timber or firewood; the older portions were originally planted too close and for many years little or no attention was paid to thinning; but besides this nearly all the melanoxylon trees suffer terribly from the loranth parasite, which soon renders them sickly and retards their growth, and unless they are cut down they eventually die; the largest tree that I could find was only 5'-8" in circumference at 6 feet from the ground which is very poor growth for 21 or 22 years compared to Eucalyptus; the measurement of some others amongst the largest trees were as follows:—4'-7", 3'-10", 4'-2", 4'-8", 3'-8", the average girth in the older portion of this plantation taken from the measurement of 30 trees as they came to 2'-11".

It is no use attempting to keep this plantation for timber as the trees will continue to suffer from parasites and must be felled when badly attacked; it should all therefore come down shortly and when cleared must be replanted with *Eucalyptus globulus*.

18. *Newman*, 35 *Acres*, *Eucalyptus globulus* 6' × 6', 25 acres of which were shola, 10 acres grass land; fire unfortunately got into the outskirts of this last year and much damaged some 2 or 3 acres which necessitated the taking out of a great many trees which were more or less damaged by fire, so that any one now entering it by the road from Wellington (the side where the fire occurred) would fancy that it had been thinned most injudiciously; the rest requires thinning, but this was in progress at the time of my visit; the growth here is splendid and fine building timber will be available in time; it will all be treated as a high timber plantation.

19. *Rallia*, 60 *Acres*.—No remarks since the last report.

20. *Old Forest*, 200 *Acres*.—The growth here from the wide planting is so crooked and contorted that the plantation can never be treated as high timber; it will be far better to clean fell over as many acres as may be required for the fuel supply and then replant alternately with the coppice, which will give 4½' × 4½' instead of 9' × 9' and we shall get straight growth; at present the department has commenced thinning out only for the fuel supply.

21. *Blackbridge*, 48 *Acres*, *Eucalyptus* 6' × 6'.—Many of the casualties have been replaced and 17,000 trees put down in 1876-77.

22. *The Rock*, 8 *Acres*, *Eucalyptus* 6' × 6'.—No remarks since last report.

23. *Tippucuchy*, 35 *Acres*, *Eucalyptus* 6' × 6'.—No remarks since last report; growth good.

24. *Little Rallia*.—A new plantation; since my last report 10 acres of *Eucalyptus globulus* planted at 6' × 6' on grass land situated near Rallia and Newman.

25. Last season was a bad planting year. July, our chief planting month, was about the driest July on record, only one inch of rain having fallen; there was very much rain in September, October, November, and even December, but these months are too late for planting.

26. It has become very apparent that the planting of *Acacia melanoxylon* either for timber or firewood will never be as profitable as the planting of Eucalyptus; its growth to begin with is very much slower, and it is everywhere attacked by the Loranth, which parasite in time kills the tree but very soon renders it sickly; this tree, besides, does not appear to grow at all well from coppice, unless when cut very young.

27. The Wattle (*A. dealbata*) grows very readily from the stool, but it comes up such a dense mass of small twig-like stems that its treatment is very unmanageable, and without great expense in constant pruning and careful management it cannot be depended upon except for very small firewood, and it should only be planted where a constant supply of such is required, or as a shelter against the monsoon winds.

28. The *Eucalyptus globulus* and perhaps one or two other species of this genus are the only trees that we should plant in future; they grow most readily from the stool in every instance; if cut before 9 or 10 years of age, sending up a few strong shoots which can easily be pruned down to 1 or 2.

29. In G.O., No. 2,634, of the 4th September last, it is stated: "The Conservator will issue the necessary instructions for preserving all trees likely to grow into fine timber for this purpose, only inferior trees should be felled for the fuel market." This is rather vague, and I should like more direct orders; certain plantations must be treated as *fuel* and certain ones as *high timber*; it will be very expensive and unsatisfactory if we can only draw our fuel from the thinnings of all the plantations, and the stools of trees so thinned out cannot be expected to make rapid coppice growth when entirely overtopped and shaded by the trees left standing. To get the greatest profit out of a Eucalyptus plantation it should be clean felled over every five or six years, when the yield (as shown in paragraph 30 of my last report) will be at least 100 tons per acre.

30. The statement below shows which of the Ootacamund plantations should be treated as *fuel* and which as *high timber*, and I request sanction for putting this arrangement in force. We must have some plan of this sort to work upon, as the demand for fuel will always be much greater than that for timber, and we have not sufficient supervision to treat all as timber plantations should be treated. I have reserved all the 6' × 6' Eucalyptus which is of straight growth for timber, and these plantations will be periodically thinned out, all the overtopped and poorer trees being taken out at each thinning, the other plantations will be cut bodily over in regular rotation.

Ootacamund Plantations.	To be treated as Fuel.	To be treated as High Timber.
Governor's Shola	30 acres Acacia. 35 „ Eucalyptus.	15 acres Eucalyptus. 48 „ „
Aramby	7 acres Acacia.	...
Snowdon	10 „ „	...
Marley Mund	15 „ „	...
Sheffield	10 „ „	...
Brooklands	...	38 acres Eucalyptus.
Bakie	...	14 „ „
Cally	...	...
Arnikal	9 acres Eucalyptus.	...
Andy	More or less a failure as too exposed, but firewood will be available.	...
Chowghat Cally	...	30 acres Eucalyptus.
Koolie	...	58 „ „
Buthery	...	80 „ „
Total ...	116 Acres.	283 Acres.

31. The firewood supply is certainly the most important question at present, and we cannot at all guess what the timber demand is ever likely to be; at present it is almost *nil*, and I do not anticipate myself that it will ever equal the supply. Vast quantities of firewood as well as timber are grown privately in and around the station, and I anticipate that the 116 acres now to be treated as firewood will suffice together with the thinnings of the timber plantations; but if the officer in charge finds that it falls short we shall have to extend.

32. With reference to Wellington plantations, Bleak House, Rallia and the Old Forest should be treated as fuel at present, and the remainder as timber; but here the demand for fuel will not, I expect, equal the supply proposed. I request sanction however for the arrangement proposed in paragraph 20 with reference to the old forest plantations; we can then cut it down acre by acre as far as the demand allows, replanting alternately with the coppice shoots so that

in time it can be turned into a good timber plantation; it will be a great pity to allow it to grow up in its present state as all the trees are more or less twisted and crooked; the plantation is in the best soil and shows the quickest growth of any on the Hills.

33. The lower or older portion of the Aramby plantation is now a fine example of what a Eucalyptus timber plantation should be at its age, and should be visited by any one interested in the subject.

34. A private gentleman at Ootacamund lately cut down a Eucalyptus tree which he had planted with his own hands exactly twelve years previously, and he informs me that he cut out of it 144 cubic feet of marketable timber, giving a rate of growth of 1 cubic foot per month.

35. The area of the different plantations is only approximate; all the Ooty and some of the Wellington plantations have been lately surveyed by the Survey Department, but their survey areas are squared off and include often some of the surrounding grass land and do not therefore show correctly the acreage of the planted area only.

Year.	Receipts.	Expenditure including establishment.
	Rs. A. P.	Rs. A. P.
1876-77	11,101 2 10	8,491 11 10
1877-78	7,268 15 9	10,026 6 5

36. The marginal statement shows the receipts and expenditure on these plantations since my last report —(*vide* G.O., No. 2,634, of 4th September 1877).

37. I have also lately visited the Mudumallay and Seegoor forests, the Mudumallay Teak plantations and the Seegoor Sandalwood plantations.

38. In connection with these I have nothing particular to report on or to notice since my last report (G.O., No. 1,301, of the 20th September 1876). An important question with reference to the working of the extreme western portion has arisen, but this is before Government in paragraph 9 of my Wynaad report (*vide* Proceedings of the Board of Revenue, No. 220, dated 25th January 1878).

39. With reference to the G.O., No. 2,678, of the 8th of September last, I forward plan and estimate* of the Ranger's lodge for Mudumallay; the estimate amounts to Rupees 2,980, but can, I think, be reduced by our using our own jungle timbers or some of the refuse Teak.

* Enclosures Nos. 1 and 2.

40. In the Mudumallay and Benni forests, felling, dragging and carting of timber have been carried on, and since my last report 34,627 cubic feet have been delivered to the Public Works Department and other departments, and 8,269 cubic feet to the public.

41. *Seegoor Refuse Timber.*—The total quantity was originally 8,265 cubic feet; the merchant who purchased at 6 Annas per foot removed, prior to April 1876, 2,133 cubic feet on payment of Rupees 800, and the balance, 6,132 cubic feet, has been made over to him subsequently on payment of Rupees 2,299-6-0. Thus the accounts of the Seegoor refuse timber have been finally settled.

42. *Mudumallay Refuse.*—The total quantity has been 31,646 cubic feet; of this 19,862 cubic feet have been sold to a Mysore merchant at 7¼ Annas per foot, and the amount realized therefore is Rupees 9,000.

43. *Seegoor Forests.*—The usual felling of Sandalwood has proceeded; 2,402 maunds have been prepared since my last visit, for which the contractors have paid 14,246 Rupees.

44. *Mudumallay Teak Plantation.*—Thinning, fire-tracing, and weeding have been carried on, but there has been no extension; the expenditure during the past two years has been Rupees 903.

45. *The Benni Teak Plantation.*—The works done here since my last visit were weeding, pruning, and fire-tracing; no extension made; the expenditure during the last two years has been Rupees 1,904.

The total expenditure on the two plantations up to date amounts to Rupees 25,557; the expenditure on weeding should shortly be reduced to a minimum, but fire-tracing will be necessary for some years.

46. *Seegoor Sembrageddi Sandalwood Plantation.*—All thoroughly weeded and pruned, and creepers removed from the trees; about 3,000 casualties occurred, which were replaced; a broad fire-trace was cut in December 1876 and December 1877; the expenditure including pay of temporary watchers for the last two years has been Rupees 1,464; expenditure up to date Rupees 8,841.

47. The statement below gives the receipts and charges of the Mudumallay forests from the commencement up to date; these forests were worked by the Public Works Department from 1st March 1859 to 31st October 1860, when they were handed over to this department. It has

been customary to debit the whole of the Deputy Conservator's salary and his office establishment against this forest, and the deficit is partly owing to this:—

Year.	Receipts.	Expenditure including Establishment and the rental of Rupees 3,500 per Annum.
	Rs. A. P.	Rs. A. P.
1861-62	37,936 5 1	34,346 14 7
1862-63	62,731 5 0	44,023 11 5
1863-64	15,287 6 5	37,292 7 4
1864-65	48,846 15 6	43,854 12 0
1865-66	67,570 11 6	64,891 2 10
1866-67	69,611 5 2	47,072 3 7
1867-68	64,914 9 7	54,162 14 9
1868-69	60,014 7 5	49,794 10 7
1869-70	47,978 7 4	47,380 1 6
1870-71	15,184 12 2	39,617 6 0
1871-72	21,528 0 0	44,521 7 8
1872-73	46,043 8 6	46,163 13 9
1873-74	41,823 0 0	39,429 0 0
1874-75	20,905 12 10	43,446 1 0
1875-76	53,928 1 8	36,797 5 0
1876-77	46,516 4 5	52,193 7 4
1877-78	40,276 10 10	41,901 10 8
Total ...	7,61,097 11 5	7,66,889 5 0
(Minus) —	99,395 2 7	
(Plus) +	93,602 5 0	
Balance against the Forests ...	5,792 13 7	

48. The statement below gives the receipts and charges of the Seegoor Forests; prior to 1873-74 they were worked with Sattiamangalam and the accounts lumped together so that no reliable data can be offered:—

Year.	Receipts.	Expenditure including Establishment.
	Rs. A. P.	Rs. A. P.
1873-74	2,194 0 0	2,800 0 0
1874-75	6,672 0 0	4,032 0 0
1875-76	7,815 0 0	4,756 0 0
1876-77	9,470 2 8	3,883 1 9
1877-78	7,275 2 0	6,338 12 0
Total ...	33,426 4 8	21,809 13 9
(Plus) +	12,222 6 11	
(Minus) —	606 0 0	
Balance in favor of the Forests ...	11,616 6 11	

(Signed) R. H. BEDDOME, Lieut.-Col.,
Conservator of Forests.

No. 33.

FORWARDED to the Secretary to Government, Revenue Department, through the Commissioner of Nilgiris and the Board of Revenue, with reference to Rule VIII published with G.O., No. 1,662-A, of the 19th November 1875, Revenue Department.

(Signed) R. H. BEDDOME, Lieut.-Col.,
Conservator of Forests.

OOTACAMUND,
4th April 1878.

ENCLOSURE No. 2.—Plan of Ranger's Lodge.

ENCLOSURE No. 3.—Estimate.

THE Inspection Report above recorded will be submitted for the orders of Government.

2. The Board concur with the Conservator in giving preference generally to the Eucalyptus [illegible] plantings. His mode of providing (paragraphs 29 and 30) for timber and firewood commends itself, and the Board conceive that it will meet the wishes of Government.

3. The proposal made in paragraph 20 is approved.

4. The growth recorded in paragraph 34 is truly encouraging, but it was presumedly a solitary and not a plantation crowded tree.

5. The Conservator thinks that his present provision for firewood is sufficient. No data for a conclusion are supplied, such for instance as the ruling prices of firewood on the Hills now and formerly, and the comparative pillage of the Government natural sholahs now and formerly. It is desirable that this question should be fully considered before it is decided to stay planting extension on the Nilgiris.

6. The plan and estimate for a Ranger's lodge (paragraph 39) are approved.

(True Copies and Extract.)

Acting Sub-Secretary.

To the Secretary to Government, Revenue Department,
" Commissioner of the Nilgiris. with plan and estimate to be returned.
" Conservator of Forests.

Exd. W. J. Lewis.

Revenue Department
Board of Revenue,
MADRAS.

1878.

PROCEEDINGS, 13TH MAY 1878, No. 1,289.

Received 21 May 1878.

Encl. 2 & 3

MAY,
No. 1,289.

Nilgiri, Mudumalay and Seegoor Forests.—Submitting to Government Inspection Report of Conservator of Forests on the —.

Rec'd 11th to 20th July 1878

Rec'd 20-3-78 to 30-3-78
8-4-78 - 13-4-78
4-6-78 - 20-6-78 - 196-P

Revenue Department

Rec'd 21/5/78

Rev. Dept.

Foresters

Rec'd 13 May 78
No 1284.
Conservator's Report
on Nilgiri Forest-Rangs

Orders are requested
on Mr Beddome's
proposals 29 & 30
as they necessitate
an application for
modification of
para 2 G.O. 4 Revenue
dated 7 No 2634.
It is presumed
that the future
supply of firewood
may be left to
private growers.
The plan submitted
herewith for a
Rangers house
is that referred
to in a recent
minute on the

Mark that the Govt
Govt was not asked
to - I feel that he
is a little under Mr
Sim -

Mr. Wood stated the
market is so low that
restrictive forest
planting - Govt only
interests of the pre
sent

Eucalyptus Globulus and

78.

f Revenue,

DRAS.

MAY 1878, No. 1,289.

6/6/78.

Encl.

30 July 1878

MAY.

No. 1,289.

ay and Seegoor Forests.—
ernment Inspection Report
orests on the —.

No. 247 Forests

Nilgiri works

plantations.

Conservator's report on

Order

The Conservator's recommendations as to the treatment of the plantations are accepted in modification of para. 2 G.O. 4th Sept. 1877 No. 2634.

2. All Government sholas which have been felled should be [illegible] with Eucalyptus Globulus & the full area [illegible] should be planted [illegible]

3. It seems [illegible] probable that [illegible] from fuel & timber [illegible] Eucalyptus planting will have to be undertaken on [illegible] these sites to counteract the effects of the growing diminution of natural woods. The Conservator will consider this matter & make such proposals as he may think fit [illegible] & [illegible] [illegible]

4. The plans & estimates for a [illegible] are approved & sanctioned [illegible] to the addition [illegible] out houses.

[illegible]

C. 3-7-78. R.C. 17-7-78.
R. 15-7-78. R. 19-7-78

1106/10

Rev: Dept.

No. 1106

Proceedings of the Madras Government
Under date the 20 July 1878

Read the following

Proceedings of the Board of Revenue date 13th May 1878 No. 1289, submitting Inspection Report of the Conservator of Forests on the Nilgiri, Mudumalay and Segoor Forests.

The Conservator's recommendations as to the treatment of the plantations are accepted in modification of para. 2 G.O. 4th September 1877 No. 2634.

2. All Government Sholas which have been felled should be gradually renewed with Eucalyptus Globulus and the full area of all surveyed plantations be planted up with this tree.

3

[illegible] 184

3. It seems probable that, apart from fuel and timber requirements, planting will have to be undertaken on these hills to counteract the effects of the growing denudation of natural woods.

The Conservator will consider this matter and make such proposals as he may think fit, and as means and suitable sites admit.

4. The plan and estimate for a Ranger's house are approved and sanctioned subject to the addition of the necessary out houses.

Sd

14 Feb. Board of Revenue Dc. 29 Jany
21 . the Conservator of Forests

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Sd

Silpa Prabodh
Illustrations

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Acc 209-810

C 7-7-78
R 19-7-78