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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.	874.	Press
B.P. No.		~~Mis.~~
Dated	5-6-1875	196 . .

Not to be folded or roughly handled

No. 36. Read the following Proceedings of the Board of Revenue, dated 26th April 1875, No. 1,032, Forest No. 62 :—

Read Report from the Inspector of Forests, dated 4th November 1874, No. 450, and 16th November 1874, No. 459, on plantations and firewood reserves for the half-year ending 30th June 1874.

THE foregoing report on the plantations and fuel reserves for the half-year ending 30th June 1874 will be submitted for the information of Government. Captain Walker has summarized sufficiently fully the points as regards each plantation and reserve which require notice; and the Board will abstain from going over the same ground and confine themselves to such general remarks and orders as seem called for.

2. First as to the form of the statements, which are now submitted for the first time. The form devised by Captain Walker providing as it does for the exhibition in a uniform shape of the most important particulars of information as to the state of each plantation and reserve, and as to the progress made during the period to which each report relates, is a great improvement on the previous system. But in attempting in separate Proceedings to utilize these statements for purposes which are certainly most important, and ought to be fulfilled by them, the Board have learnt their deficiencies, and have devised the annexed forms, which appear to them an improvement on Captain Walker's, and on which his opinion is now requested.

3. The statements are intended to show, amongst other things, the cost of the plantations and reserves to Government, and to furnish materials for an estimate of the financial success or otherwise of each speculation. They should also exhibit the degree in which the works necessarily incidental to such undertakings have been fulfilled in each case, and afford data for computing the cost of each class of work. They do not at present fulfil these requirements; and some modifications, chiefly provision for further distributing the recorded outlay, both as to object and time, are necessary. These can be effected without entailing very much additional trouble, after the first report is drawn up, and without requiring much additional space.

4. Form No. 1 is intended for firewood reserves. The Board have filled in some specimen entries to show how the form is intended to be used. As to the estimate of stocking, the Board think that to class from 0 to 10 would merely give a specious appearance of accuracy, and that degrees from 0 to 5 will suffice for practical purposes. The form shows readily by means of comparison of the present and previous fully stocked area, the amount of improvement effected during the period under report. The expenditure and receipts are distributed by years, which will enable interest to be calculated and show the age of the reserve. In the third section of the form details of the expenditure are given up to and in the period under report; and from this part an idea can be formed of what has been done for the reserve, and what remains to be done; and also of the cost of each operation per acre, whence useful averages can be got. The fourth section

shows the results of felling, and the fifth is for general remarks and detail of what has been done during the period under report. It is hoped that as regards reserves at least, such figures as are given under rule 4 of Captain Walker's statements, *viz.*, casualties, number of trees established, &c., must be purely imaginary and unreliable; and that general statements, and the estimate of the degree of stocking are the best indices to the state of the reserve and the results of the period under report.

5. Form No. 2 is for plantations and is framed on similar principles; but provides for the exhibition of casualties and shows the age of each portion of the planted area. The Board do not see any particular advantage in having these reports drawn up half yearly; and suggest that they should be made annual, and the first be submitted at the close of the year 1874-75. If this is allowed, official must be substituted for calendar years in the forms. It is intended that all expenditure and receipts should be given in whole Rupees.

6. The Board fully concur in Captain Walker's judicious remarks in paragraphs 14 to 18 of his report, and request the particular attention of Collectors and forest officers to them. As to the question whether reports on jungle conservancy reserves and plantations should pass through the Inspector, the Board are of opinion that when such reserves, &c., are in the charge of the Deputy Conservators, the reports should be sent through the Inspector; otherwise not. But this is a point which will depend in great degree on the position which will in future be assigned to the Inspector.

7. The Collector of Cuddapah will report with reference to paragraphs 23 and 25. As to Bellary, the Board observe that the transfer of the Gooty plantation to Jungle Conservancy has been recommended. In separate Proceedings the Board have called for further report from the Collector on the subject of extending planting in the district. The question of the Woncarrum plantation in Kurnool has been disposed of. The remarks of the Inspector seem to indicate that but little interest is taken in forest matters in that district. The North Arcot forest officer should furnish explanation in his next report with reference to paragraph 32. The future classification of the South Arcot Casuarina plantations has been settled.

Board's Proceedings, dated 10th March 1875, No. 568.

8. The Board are glad to learn that notwithstanding the heavy charges against the Trichinopoly Pudugay plantations they are likely to prove so successful. The Board are decidedly of opinion that no further outlay should be incurred on experimental Teak planting in the Annamalais. It appears that existing plantations can be kept up by the permanent establishment; and it is satisfactory to observe that, at least, no ultimate loss is anticipated. The Board are inclined to agree with the Inspector in his remarks (paragraphs 58, 59) as to the futility of small experimental plantations; but until the professional authorities come to an agreement as to the expediency of growing Sandalwood artificially, matters had better remain as they are. Explanation from South Canara is called for with reference to paragraphs 63 and 65. A special report on the Nelambur Teak plantations is due from the Collector of Malabar on a call from the Government of India.

36. Re[illegible]t on railway fuel-supply, the Board ha[illegible]nsidered the Ap[illegible] each district, and no further review is now called for. The Collectors concerned will pay attention to Captain Walker's remarks with reference to paragraph 91, the Collector of Tinnevelly must understand that no transfers from Jungle Conservancy to the Imperial department can be made without sanction. The Board trust that the next report as to the Coimbatore portion of the Walliar reserve, now to be called Sholakarai, will be more satisfactory. The Collector of Madura will submit a special report and explanation with reference to the fuel reserves, and state why the orders which have been issued have not been carried out.

10. The Board thank Captain Walker for the trouble he has taken in placing the facts to be gathered from the reports so clearly before the Board.

(A true Copy and Extract.)

(Signed) H. E. STOKES,
Acting Secretary.

No. 1.—*Report on Firewood Reserves for the half-year ending*

District.	Salem.		Coimbatore.	
Forest Range.	Salem.		Mettoopolliem.	
Name of Reserve.	A[illegible] Reserve, Mullapoodam.		H No. 1.	
Class and general description, nature of trees, &c.	Close reserve, unsurveyed, roughly demarcated. Trees, Acacia 10 per cent. Blackwood 5 per cent. [illegible]y, 5 per cent., &c. About 150 trees to the acre, in fully-stocked portion.		Open reserve, surveyed, not demarcated. Trees, Acacia Amara 20 per cent. Albizzia Lebbek 35 per cent., &c., 100 trees to the acre.	
Area and Stocking.	At the end of half-year.	Equal to fully stocked.	Up to the end of half-year.	Equal to fully stocked.
	ACRES.	ACRES.	ACRES.	ACRES.
Bare 0	100	...	...	...
¼ Full 1	150	30	400	80
½ Full 2	500	200	900	360
¾ Full 3	500	300	900	540
¼ Full 4	510	408	910	628
Full 5	800	800	2,000	2,000
Total...	2,560	1,738	5,120	3,608
As per last report...	2,560	1,500	4,500	3,900
Expenditure and Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.
	RS.	RS.	RS.	RS.
Year 1867	800	...	...	...
,, 1868	200	...	150	...
,, 1869	300	...	100	...
,, 1870	220	...	100	...
,, 1871	200	294	100	...
,, 1872	221	...	...	...
,, 1873	280	...	193	...
,, 1874, 1st half.	266	...	...	...
,, 2nd half.	...			
Total...	2,487	294	643	...
Detail of Expenditure.	In half-year.	Up to half-year.	In half-year.	Up to half-year.
	RS.	RS.	RS.	RS.
1. Purchase of land	...	...	...	...
2. Compensation	...	[illegible]00	...	150
3. Survey and demarcation..	...	5[illegible]	3	100
4. Enclosure and fencing ...	...	450	190	...
5. Protection from fire	195	581	...	200
6. Improvement...	...	...	...	...
7. Reboisement	...	300	...	...
8. Establishment... {Fixed.	35	250	...	...
8. Establishment... {Hired.	36	40	...	...
9. Other outlay	...			
Total...	266	2,221	193	450
Acres felled	Nil.	5	Nil.	Nil.
Yield in tons, green.		60		
General Remarks.	Stock improved considerably owing to plentiful rain. Natural growth good. Seed sown in 59 acres, germinated well. About 1,000 seedlings of Acacia put out. No felling.		620 acres of poor jungle added during the half-year. Reduction of stocked area due to heavy fire in 500 acres, Fire-traces widened during the half-year after the fire.	

No. 2.—*Report on Plantations for the half-year ending*

District.	South Arcot.	
Forest Range.	South Arcot.	
Name of Plantation.	Trinomalai.	
Class and general description, nature of trees.	Firewood, Casuarina for Railway fuel. Trees 350 to the acre.	
I.—*Area and Stocking.*	In half-year.	Up to half-year.
Planted acres	...	100
Unplanted...	...	150
Total...	250	250
II.—*Expenditure and Receipts.*	Expenditure.	Receipts.	Area planted in each year.
	RS.	RS.	ACRES.
1867	...	...	...
1868	...	...	100
1869	4,017	...	...
1870	2,520	...	...
1871	630	250	...
1872	525	250	...
1873	120	100	...
1874 {1st half	60	...	...
1874 {2nd half	...	...	...
Total...	7,872	600	...
III.—*Detail of Expenditure.*	In half-year.	Up to half year.
	RS.	RS.
1. Purchase or rent of land.	...	...
2. Compensation	...	...
3. Enclosure and fencing...	...	217
4. Formation	...	1,280
5. Improvement and conservation...	...	2,715
6. Establishment.. {Fixed.	60	600
6. Establishment.. {Hired.	...	...
7. Other outlay	...	...
Total..	60	7,812
IV.—*Acres felled.*	Nil.	Nil.
Yield, green.. {Trunks ...	Nil.	Nil.
Yield, green.. {Branches..		
Yield, green.. {Timber ...		
Casualties	50	12,000
Casualties replaced	...	12,000
V.—*General remarks and results.*	Trees well grown; will be fit to fell in six months.	

Proceedings of the Madras Government, Revenue Department,
5th June 1875.

No. 37. ORDER THEREON, 5th June 1875. No. 374.

Forests, No. 3.

THE Board's proposals in paragraph 5 are approved. The Government concur with them in commendation of Captain Walker's report.

(True Extract.)

(Signed) A. MACGREGOR,
Acting Secretary to Government.

To the Board of Revenue.
„ the Officiating Inspector of Forests.

Exd. F. R. Bantleman.

Govt. of [illegible] Madras.

REVENUE.

To

THE BOARD OF REVENUE.

&c., &c., &c.

Read [illegible] June, 5th.

Esd. &c.

G. O., 5th June 1875, No. 874.

JUNE.
Nos. 36-37.

Forests Form No. 2 for Plantations.—Approving Board's proposals (paragraph 5) regarding the submission of —, and concurring with them in commendation of Captain Walker's report.

OFFICE OF INSPECTOR OF FORESTS,
Ootacamund, 4th November 1874.

No. 410.

From Captain CAMPBELL WALKER,
Officiating Inspector of Forests,

To J. GROSE, Esq.,
Secretary to the Board of Revenue.

Sir,

I HAVE the honor to submit the reports on Plantations and Firewood Reserves for the half-year ending 30th June 1874, received from the districts marginally noted.

Plantations.	*Reserves.*
1. Cuddapah.	1. Cuddapah.
2. Bellary.	2. North Arcot.
3. Kurnool.	3. South Arcot.
4. North Arcot.	4. Trichinopoly.
5. South Arcot.	5. Tinnevelly.
6. Trichinopoly.	6. Coimbatore.
7. Coimbatore.	7. Salem.
8. Neilgherries.	8. Malabar.
9. Salem.	
10. South Canara.	
11. Malabar.	

2. Great delay has occurred in the submission of these Returns from the several districts, caused doubtless to some extent by the form being new, and subsequently by some confusion as to dates of submission.

Still the delay in the case of some districts appears unduly great, and has caused the greatest inconvenience. I beg that the Board will enjoin on all Collectors and Forest Officers the necessity of submitting the Returns in future within a reasonable time of the due date, in order that they may be reviewed, and remarks communicated before those for the next half year are compiled. No Returns have been received from Gumsoor, Golcondah, and Madura. The two former are of little consequence, and there is no special Forest Officer in charge, but I am at a loss to understand the cause of Mr. Williams non-submission of the Reports notwithstanding several reminders, and beg that he may be called upon for an explanation.

3. I observe that some Collectors submit copies, retaining I presume, the originals in their own office. This appears unnecessary and contrary to orders, especially as there is already an office copy in the Office of their Forest Assistants, available for reference at any time.

4. The Returns are submitted in the form prescribed in this Office Circular, No. 35, dated 26th March 1874, approved of by the Board, in their Proceedings, No 65-1,119, dated 13th May 1874, and the information acquired enables me, I believe, for the first time to exhibit the results of planting, and formation of Firewood Reserves from the *commencement* up to the 30th June last, as well as the progress made during the half year with which the reports more particularly deal. I have on this account given the information in some detail, and trust that in future there may be no difficulty in obtaining accurate statements of the condition and progress of planting, etc., in each district.

The forms now adopted with a few modifications, submitted in the shape of a separate Memorandum which I request that the Board will approve of and communicate to all Collectors as early as possible, will suffice as a complete record of operations in these respects, ordered by Government to be kept up in the Office of each Forest Division or Range and prescribed in paragraph 5 of Circular 35.

5. PLANTATIONS.—The general results exhibited show that we have 6,643¾ Acres of plantations (under Imperial Forest Conservancy,) throughout the Presidency, of which 3,288 Acres are timber ; 287½ Acres mixed ; 2,976¾ Acres firewood ; and 91¾ experimental.

6. The total expenditure from the commencement has been Rupees 3,60,691 5-10 excluding supervision, rent of land, or interest on capital, and the receipts, which are chiefly from Nelambur, Rupees 96,075-8-9.

7. I think the general results may be considered satisfactory, and have no doubt that almost all the plantations will not only re-pay expenditure, but yield a very large and constantly increasing revenue to Government, whilst providing for the supply of timber and wood fuel to the public and Government Departments.

At the same time I cannot too strongly advocate the greatest care and consideration in the future undertaking of planting operations throughout the Presidency. It has been, I fear, too much the custom, both with regard to imperial and local planting, to commence and carry on operations without first counting the cost, and weighing well all the conditions on which alone planting can be successfully undertaken. It is not sufficient that a certain soil and climate will grow timber or firewood trees under certain conditions. It should be considered whether those conditions are as favorable as in other districts, and whether the district wants cannot be met cheaper, and with greater advantage, either by careful conservancy of its existing forests, or by indenting on other districts more favorably circumstanced as regards climate, cost of labor, means of conveying the produce to market by railroad or river, or an available area of Government waste land not required for cultivation.

Thus I very much doubt the expediency or necessity of planting teak in the Anamullay and Mudumullay forests or Sandalwood in Salem or Collegal, where I believe the equal, if not better, results could be obtained by carefully conserving and stimulating natural re-production in the indigenous forests.

8. It is further worthy of note that whilst the Teak Plantations at Nelambur appear to have cost on an average Rupees 67, per acre, those at Mudumullay and Bennay have cost Rupees 242. Again the Sandalwood planting in Salem has cost Rupees 138, whilst that in Sathiamungalum has cost Rupees 164 and in Collegal Rupees 211 per acre. In the case of the Teak Plantations, those at Nelambur are much older and on a more extended scale than those with which they are compared, whilst, on the other hand, the Salem Sandalwood Plantation is but in its infancy, whilst operations in Sathiamungalum and Collegal have been conducted for years. Doubtless much of the expenditure was incurred on fruitless experiments by the results of which Salem is now benefiting.

9. As regards firewood planting we have North Arcot, in which district the plantations appear to have cost all round about Rupees 34, per acre, whereas the estimates in South Arcot for plantations of a similar character, which are not shown in this Return as they have hitherto been local works, are much higher.

10. Without therefore attempting to generalize from the imperfect data now before us, I would urge the necessity of discontinuing any desultory planting on which much money has already been expended, and which is apt to find favor in each district under the present organization.

11. The expenditure for the half year under report has been Rupees 23,126-13-10 and the receipts (mainly from Nelambur) Rupees 5,890-15-1. The former has been mainly for up-keep of existing plantations, collection of seed and nursery management, and appears on the whole to have been judicious and necessary.

12. The Returns for Jungle Conservancy Plantations received from some districts in accordance with paragraph 2 of Circular No. 35, are submitted separately, and as most Collectors have not submitted them, I refrain from any comment, leaving it to the Board and Government to determine whether they should, for the future, be sent through the Inspector or not.

13. Firewood Reserves.—There are 91,345¼ Acres of Firewood Reserves throughout the Presidency, of which 14,414 Acres approximately may be classed as close or fully fenced in, and 76,931¼ Acres as open or unfenced. The expenditure from the commencement has been Rupees 71,589-13-11, including purchase of Malabar reserves and the Receipts Rupees 2,153-1-9.

14. No reliable estimate can be formed of the stocked, half stocked, and bare areas from the Returns under review. These reserves differ of course widely one from another in value, and capability of improvement, and it will require several years of careful experiment and research to enable us to arrive at any really reliable conclusions as to the yield per acre. I may state that recent experimental felling in the oldest of the Salem reserves, gives an yield of 12 tons per acre, which is satisfactory. With proper management the yield per acre should increase each, year, as we divide the reserves into blocks in regular stalls of growth instead of retaining all defined areas in which trees of all descriptions and ages are mixed up together and blank spaces frequently occur. Statement B. exhibit the acreage, expenditure, and receipt in each district from the commencement.

15. From the remarks made on the Returns from each district, the Board will gather how much difficulty has been experienced in compiling any thing like reliable Returns, and how very far those now submitted are from what we really require. I find that many of our officers and Overseers consider it quite superfluous to estimate, even in the roughest manner, the areas, stocked and half stocked, or the approximate yield per acre. One Overseer of long standing in the department recently told me that it was quite impossible to say what an acre of ordinary jungle would yield if cut now, and still more what it might be expected to produce with careful conservancy after ten or fifteen years! So long as this feeling is allowed to remain unchecked, we can arrive at no definite ideas of how we stand; and lack the very rudiments of a forester's craft.

16. I beg the Board will strongly impress this on all Collectors and their Forest Assistants. Estimates for the future are doubtless very speculative in our present state of ignorance, but experiments, and carefully recorded observations would soon give us data for forming fairly reliable conclusions as to our growing stock or capital in hand. This important matter appears quite to have been lost sight of up till now, and we therefore find ourselves nearly as much in the dark as we were at the commencement of these Firewood Reserves, for the area tells us nothing unless we have reliable estimates of the crop.

17. To facilitate the estimating, a fully stocked area should be represented by 10 and a bare space by O., and the ratio which any tract bears to one or the other be represented by the intermediate figures in the Forest Officer's Note book.

18. Whilst the expenditure in some districts has doubtless been well considered, and highly beneficial in others, it has been most wasteful, and productive of no good results. Fire traces have been partially cut one year and allowed to become grown over the next; fences have been made, and never maintained, and considerable sums expended for the formation of nurseries and planting out trees in pits, operations which are quite beyond the sphere of *Firewood Reserves*. It is hoped that this desultory expenditure has now been put a stop to, and that in future no operations will be commenced without a well considered plan and estimate of cost, and that when they are commenced, they will be conducted systematically and thoroughly so as to attain the object in view, viz., the largest possible yield per acre with minimum expenditure.

19. The total Expenditure for the half year has been Rupees 5,139-13-5, and Receipts Rupees 850-14-7. It should, of course, be borne in mind that we have not as yet commenced to fell in any of the reserves, and that the receipts are merely from collection of dead wood, fallen trees, grass, and tree rents, etc. The Returns for Jungle Conservancy Reserves are submitted separately, without review, as explained in paragraph 12.

20. I proceed to review the Returns seriatim premising that, as they deal except in the case of Malabar, South Canara, and Mudumullays with what may be styled the non-working season, the operations have been mainly preparatory and preservative; no large increase has therefore been made in the areas planted or stocked.

21. *Cuddapah.*—There is one red Sanders (experimental) Plantation at Codoor, and four Firewood Plantations known as Ooperapully, Reddipully, Pullumpett and Camalapoor. The total area under Plantations is given as 1,728 Acres, and the expenditure from commencement is Rupees 38,317-12-10. The areas planted and unplanted are not given, but Mr. Yarde promises to supply them with the next report, after accurate measurement. He reports that the condition of the older portion of the plantations is satisfactory.

22. *Codoor.*—The total acreage is given as 50 Acres containing upward of 21,000 trees expenditure during the half year Rupees 219-12-0, from the commencement Rupees 5,203-6-4 or as nearly as possible 4 Annas per tree. The work during the half-year has consisted principally in weeding and clearing brushwood in the younger portions of the plantations. There are about 10,000 seedlings in the nursery beds ready to plant out.

23. The area of the four Firewood Plantations is given as 1,870 Acres containing 2,05,396 trees, expenditure during the half-year Rupees 1,398-12-0 and from the commencement Rupees 33,144-6-6. The work of the half year has consisted chiefly in weeding, collection of seed, formation of nursery beds, channelling, and replacing casualties which are stated to have been 3,07 during the half year. Some watering was also found necessary during the hot months.

One lac and thirty-five thousand plants are stated to be ready to plant out from the nursery, but I observe that they still consist largely of slow growing timber trees which as already pointed out in paragraph 3 of my memorandum on the last report, (Board's Proceedings, No. 56/948, dated 22nd April) find no proper place in Fuel Plantations. I observe by the monthly Progress Reports, that Mr. Yarde's attention has been already called to this point by the Collector. I am glad to see that ploughing and broad cast sowing is being introduced in place of pitting, which is far too costly a method of growing firewood. Mr. Yarde complains of difficulty in getting ploughs and bullocks, probably the Collector can get the requisite number supplied through the Tahsildars if he has sufficient notice, but it might be found advisable if any considerable area is to be ploughed and sown in future, to purchase a few pairs of cattle and either dispose of them when no longer required, or make use of them for carting and dragging firewood, etc.

24. The expenditure on Fencing and Repairs should have been exhibited under the proper head (d.).

25. In his letter No. 145, dated 27th June, recorded in Board's Proceedings, No. 121-2081, dated 4th August 1874,) the Collector explains satisfactorily why some of the establishments are entered as hired and others as permanent, but he does not tell us why the cost of establishment for Camalapoor with an area of 247 Acres should be so much in excess of that for the other plantations of equal or greater areas ; thus for the half year under review the Camalapoor Plantations establishment has cost Rupees 189, whereas that for Reddipully, with an area of 924 Acres, is only Rupees 78. The difference is doubtless capable of satisfactory explanation, but the mere fact that one is paid from B. Establishment, and the other from Working Charges does not explain it.

26. *Bellary.*—The acreage of the Ghooty Plantations is given as 404¾ Acres containing 62,000 trees, actual area planted not being given, expenditure during the half-year Rupees 213 from the commencement Rupees 9,188. As usual during the non-planting season the operations consisted of weeding, watering, collection of seed, etc. Three wells were deepened. The want of water was much felt in January, February, March and April, and even in May and June the rains were insufficient to admit of ploughing for broad cast sowing, and many seedlings perished from the drought. There are 10,000 seedlings ready in the nursery for planting out, but if we are to do any good in this district, it must be by broad cast sowing, of quick-growing trees.

27. I shall report on the subject of extended planting after visiting the district and consulting with Mr. Master ; at present, operations are certainly on too limited a scale to admit of our having a separate officer or even Overseer for the charge. The Consulting Engineer for Railways is very anxious that we should arrange for a future supply of wood fuel in this district, in which there are 150 miles of railway, but I fear it will be found impracticable.

28. *Kurnool.*—The Collector submits copies instead of the original reports.

There would appear to be two small experimental plantations with a total acreage of 15½ Acres containing 945 trees, and the expenditure Rupees 1,714-9-0 from the commencement, but Mr. Boileau makes a remark regarding the expenditure which tends to show that no accurate accounts, for each plantation were kept from 1866 to 1870, and adds under column 4 "expenditure under all heads up to commencement of half-year" the words *from July* 1870; I presume, however, that he includes the former expenditure (Rupees 1,028-10-0) as well, otherwise we have a sum of Rupees 2,743-3-0 out of all proportion to the results. The expenditure for the half year is entered as Rupees 178-3-0, but there is an item of Rupees 5 under Permanent Establishment which requires explanation. The *work done* during the half-year is not stated.

29. Mr. Boileau's letter which accompanies the Return is not encouraging, and is indeed a case of special pleading throughout, to the effect that the planting has been mismanaged in every way, and is a failure though he does not appear to have taken immediate steps to improve matters, and the Collector is silent on the subject. From Mr. Boileau's report it would appear that there are five gardeners entertained on the Woncaroum Plantation containing about 800 trees.

30. There would appear to be a nursery at Nundial, with regard to which Mr. Boileau reports, "as all work is stopped no report is needed."

It is clear that planting operations in Kurnool must either be abandoned or conducted on some more systematic and economical footing. I shall give the subject attention when I visit the district. Meanwhile all expenditure should be reduced to a minimum.

31. *North Arcot.*—The Collector submits copies instead of the original returns.

The total area taken up for plantations in this district is Acres 1,342, of which 815 Acres are reported as planted with 4,43,705 trees at a cost of Rupees 27,772-0-4 ; of the total area planted 106 Acres known as the Cheynoor and Ammerdy (6) Plantations are classed as mixed, and the remaining 709 Acres are pure firewood plantations of Casuarina, known respectively as the Trivellum, Veringepuram, Thengal, Keelminnai, Gazerlamundum, Vannivedu and Ammerdy (a) Plantations.

32. Of these, the Trivellum and Gazerlamundum Plantations containing 434·87 and 44·67 Acres respectively, are reported fully planted up with 1,80,498 trees ; the former was commenced in 1868 and the latter in 1871. The Ammerdy (a) Plantation with an area of about 160 Acres has not yet been planted, but the nurseries are well stocked with seedlings. Taking the total area planted in comparison with the expenditure, we have a cost of Rupees 34-1-2 per acre, or 1 Anna per tree, but it is a noteworthy feature that there is no charge for establishment, although, I believe, that some portion of the fixed establishments are, or were, until recently, employed in the plantations.

33. It is difficult to apportion a fair share of the supervision charges to each plantation, but the pay of any employé drawing pay under B. Establishment, employed on plantation work should, in future, be debited to that work in these returns.

34. The operations in the half-year under review, have mainly consisted in fencing, watering, and formation, and stocking of nurseries, and the expenditure under all heads has been Rupees 3,679-12-6.

35. Mr. Sheffield reports that the whole of the Thengal Plantations has now been demarcated and fenced, but states that he has, as yet, received no plans. They have not up to date been received in this office.

36. The casualties during the half-year have been very heavy in the Trivellum and Veringepuram and Cheynoor Plantations, 15,000, 26,000 and 10,000 respectively, special reports on which have already been submitted. Sixteen thousand trees have been planted out during the half year. Sixteen thousand trees appear to have been planted out probably to replace casualties.

37. The receipts during the half year have been Rupees 32, and from the commencement Rupees 386-2-0.

Mr. Sheffield's report is clear and concise, and does him much credit.

38. *South Arcot.*—The Collector submits copies instead of the original returns.

The total area of Imperial plantations is only 17 Acres, of which 7·18 is planted. These plantations may be classed as experimental, being really mere topes formed in or adjoining the timber yards. The expenditure from the commencement is given at Rupees 469-10-10, for which 4,105 trees are reported established. During the half-year the expenditure has been Rupees 37-0-6 for watering and re-placing a few casualties.

39. Mr. Wooldridge seems to advocate the extension of the Chengum Plantation, but I doubt the expediency of so doing, as the soil is poor, and water scarce in the dry months.

A special report on this plantation has been received in accordance with Board's Proceedings, No. 1[illegible], dated 27th January 1874, and shall have attention in considering the subject of experimental planting generally.

The extensive Casuarina Plantation under Mr. Wooldridge's charge in other parts of the district are classed as Local or Jungle Conservancy works, under which head they will be noticed. Proposals are now before Government to transfer them to the Imperial Department.

40. *Trichinopoly.*—There are nine plantations (firewood) known as Elamanore, Kulitalei, Manaththattai, Chithalradi, Checkonum, Kutlei, Kulamanickum, Karaippakum, and Varappakurichi. The total area planted is given as 185 Acres, unplanted 598 Acres, total 783 Acres. Expenditure from the commencement Rupees 19,[illegible]3-3-9 or Rupees 103-8-0 per acre planted up.

41. The expenditure on the older plantations, especially Elamanore is exceptionally heavy, as they have been debited with extra travelling allowances of the Deputy Conservator formerly in charge of Madura, Trichinopoly, etc., and pay of an Overseer not always employed on them exclusively. The clearing of Prickly Pear has also formed a heavy item of expenditure, still I think that even the first crop will recoup all expenditure, and show a fair profit as rent of the land which was unprofitable waste when taken up by the Forest Department.

The receipts up to 30th June have been Rupees 1,371-5-1. The Assistant Conservator, (Mr. Hadfield) gives much unnecessary detail in his explanatory remarks which should be condensed in future.

42. The operations for the half-year have consisted in planting out 21,730 trees, clearing jungle and prickly pear, weeding and watering (the last a heavy item during March and April) the plants formerly put out, collecting of seeds, formation of nursery beds, sowing, etc. The expenditure aggregates Rupees 3,141-1-1 including the cost of establishment actually employed in the plantations. The number of seedlings ready to be planted out was 1,04,000, and it was proposed to plant 196 Acres during the current half-year. The results of the half-year's operations may generally be considered favorable, and the older portions of the plantations are doing very well.

43. *Coimbatore, Anamullay.*—There are three experimental timber (Teak) Plantations with a total area of 19 Acres, of which 13 Acres have been planted at a total cost of Rupees 3,050-12-11. The total number of trees established up to the end of the half-year is 15,950, making the expenditure exclusive of supervision Rupees 0-2-11 per tree. There can be no object in prosecuting those costly experiments when by simply excluding men, cattle, and consequently fire from blocks of the forest and clearing away some of the less valuable trees, we can secure a natural re-production, and therefore I strongly advocate the cessation of all expenditure under this head, beyond the actual up-keep of the existing plantations which may be managed by the permanent establishments. The Collector, I believe, concurs in the view which Mr. Douglas himself advocates.

Mr. Douglas' remarks embodied in a separate letter to the Collector are very interesting, and deserving of attention. He explains fully how the planted and unplanted area is calculated, and adduces good reasons for the high percentage of failures and general non-success of the experiments at artificial planting; I quite endorse his view that the expenditure, considerable as it is, has not been wasted if it has taught as what *not* to attempt under the circumstances of the Anamullays.

44. The expenditure for the half-year under review is Rupees 452-7-0, representing the cost of weeding, exclusion of fire, and planting out of 10,390 trees, of which only 5,090 remained at the end of June. The planting was, indeed, a signal failure, owing as Mr. Douglas tells us, mainly to carelessness and unskilfulness on the part of the planters; the "irregularity of growth is most striking; healthy and vigorous trees vary from 4 to 20 feet in height." The vacancies have doubtless been replaced during the present half year, and the expenditure will probably eventually be recouped with ordinary care and attention.

45. *Satiamungalum Taluq.*—There is one plantation (Sandalwood) known as *old and new Tullamullai* area planted 69 Acres, with 500 Acres available for extension. The expenditure from the commencement has been Rupees 11,577-3-7, for which 65,700 Sandalwood and 2,600 Anatto (Bixa orellana) trees have been permanently established. The cost per tree has thus been Rupees 0-2-8 up to date, exclusive of pay of fixed establishment and supervision.

The state of the trees is reported good.

46. The operations for the half-year included planting out nearly 5 Acres or 3,900 plants, and watering, weeding, pruning, and manuring those planted in former years. The expenditure was Rupees 901-10-6. There were no casualties during the half year which is sufficient evidence of careful planting, the result of Colonel Morgan's long experience.

47. *Collegal Taluq.*—One plantation (Sandalwood) know as the *Bylore or Ballyrungum*, 56 Acres. planted and 1,000 Acres available for extension. Total cost from commencement Rupees 11,828-4-9 (inclusive of cost of a water channel) for which 33,000 trees are reported permanently established, representing 5 Annas and 8 Pie per tree. This is double the cost of the Tullamullai Plantation in the adjoining taluq, and the difference calls for some explanation.

48. During the half-year the expenditure amounted to Rupees 1,230-7-3 for which 4,800 were planted out. The casualties however appear to have exceeded that number by 200, but Colonel Morgan states that the original 4,800 have all been replaced by Overseer Appavoo Moodeli.

49. The non-success of planting and heavy expenditure are attributed to an unfavorable season, and the prevalence of heavy south west winds which blow down the fence, and to the want of experience of Overseer Taylor, who has since been transferred to Tinnevelly. Overseers or Foresters cannot clearly be transferred from range to range like Tahsildars, or Revenue Inspectors, the duties being very different, and special knowledge often requisite.

50. *Neilgherry District, Mudumullay Range.*—Two timber (Teak wood) Plantations known as Mudumullay and Bennay, with a planted area of 78 Acres and 1,000 Acres available for extension. The total cost from the commencement is stated to have been Rupees 18,913-8-1, for which 80,000 trees are reported established, representing a cost of Rupees 242-7-8 per acre or 3 Annas and 9 Pies per tree, exclusive of pay of establishment, supervision, etc.

51. During the half-year the expenditure has been Rupees 984-9-7 for which 10,000 pits were dug, 8 Acres of land cleared, and planted with 10,000 seedlings, a channel opened from river bank to the beds, and the whole plantation weeded, pruned, etc.

The condition of the plantation is reported as good.

52. *Seegur.*—One timber (Sandalwood) Plantation known as Sembra Geddi, planted area 20 Acres, available for extension 500 Acres. The total cost from commencement has been Rupees 3,646-14-0, the number of trees established is not stated, but it is probable that there are about 1,000 to the acre.

53. During the half-year 6 Acres were cleared, pitted, and planted which, together with the cost of collecting seed and maintaining the old portion of the plantation, cost Rupees 376-2-1. There is an item of Rupees 12 under "Hired Establishment," which appears to call for explanation, as it cannot represent the whole of the establishment employed which has probably been included under "*C* Improvement and Conservation," and would appear too little for any watcher or guard who might have been specially entertained. The general condition of the plantation is reported good.

54. *Salem.*—There appear to be three small plantations known as Goondoor, Nagalore and Kanaveenagasoondrum, and classed as "experimental timber" which have cost Rupees 3,669-9-7 from the commencement, the results for which are not clearly stated in the Return, and there is no covering letter or explanatory memorandum.

55. Goondoor appears to have been commenced during the half-year, and Mr. Brougham explains that there has been an expenditure of Rupees 24-9-0 not exhibited, as the account had not been adjusted.

56. Nagalore is a old plantation on the Shevaroys, which formerly extended over much more than 4 Acres and was planted with *Cedrela Toona* and Eucalypti, but the former at least appear to have failed. It appears now to contain only 685 trees.

57. Kanaveenagasoondrum is an experimental Sandalwood Plantation, in the Denkinikottah Range, consisting of 2 Acres planted, with an equal area available for extension—2,389 trees are reported established.

58. I think it very doubtful whether any of these planting experiments should be persevered with, certainly not until detailed estimates and reports of what is ultimately proposed are submitted in accordance with orders.

59. Planting at Goondoor was tried by Mr. Arbuthnott, when Collector of Salem, and failed, and though Mr. Brougham may make it succeed, I fear it will be very costly. At Nagalore, on which much labor and money has been expended, when I was in the district, appears also to have been unsuccessful, and with regard to the Sandalwood Plantation, I believe that we can do much better by conserving natural blocks of Sandalwood jungle, than by artificial planting; but on this point I should state that Colonel Morgan, whose opinion is entitled to great weight, does not agree with me.

60. No mention is made of the Mullapuram Firewood Plantation alluded to in the review of the last reports said, I presume it is included in C. Reserve as reported, by the Collector, (Board's Proceedings, No. 144-2 dated of 27th August). The Puchoor Plantation has been given up.

61. Operations during the half-year have, so far as we can judge from Mr. Brougham's meagre remarks, consisted in planting out twenty trees and forming nurseries at Goondoor, and replacing two hundred and eighty-four casualties at Kanaveenagasoondrum. This has cost Rupees 165-6-7, chiefly on account of establishment actually employed on the plantations. I cannot consider the results satisfactory, and as stated in my former memorandum, would advise that planting, as apart from improvement of firewood reserve, operations should, for the present at least, remain in abeyance in this district.

62. *South Canara.*—There is one Timber Plantation (Teak) known as Parapa. The planted area is given as 75 Acres, containing about 90,000 trees, which have cost up to the end of the half-year Rupees 6,572-3-2, excluding some Rupees 200 not yet adjusted by bills.

63. The area unplanted is stated to be indefinite, and Mr. Cherry explains in a foot note that although 75 Acres is the area regularly planted in lines, there has been much planting and improvement of indigenous teak trees in the surrounding forest. If it is intended, however, to maintain the plantation and carry on systematic operations, I think the total area available had better be ascertained and classed as planted or unplanted according as it is stocked with trees or not.

64. The expenditure during the half-year was Rupees 162-2-0 excluding the Rupees 200 referred to above.

65. Mr. Cherry states that the operations carried out include scattered clearings comprising some 15 Acres "which have been pitted, and prepared for the present monsoon's planting." I should have thought that the month of June, in South Canara, would have been the proper time to plant out. Mr. Cherry gives no information as to the number of seedlings he had, available for this purpose in his nurseries, nor does he give any information as to the general state of the plantation. There were 1,500 casualties during the half-year from what cause is not stated.

66. *Malabar Nelambur Range.*—There are two Timber Plantations (Teak) known as Nelambur and Amarapoliem with a planted area of 2,990 Acres which has cost from the commencement Rupees 2.01,173-10-9 or Rupees 67-4-6 per acre, but the receipts have been Rupees 94,318-1-8, leaving the net cost per acre at Rupees 35-11-9, but I am not sure whether this includes the full pay of the establishment either formerly or during the half year. From Mr. Macgregor's report printed with the annual Administration Report for 1872-73, I gather that it does, but that the purchase money of land amounting to Rupees 94,000 is not included.

67. There is some discrepancy as to the area "unplanted" in the Nedumbur Plantation in Mr. Stanbrough's return, for, he enters it as [illegible] Acres in the column for that purpose, but increases the total by 3,000. I observe that Mr. Macgregor in the report, referred to above, gives the total area as 18,615 Acres but this properly includes a considerable portion unfit for planting. It would be as well to have these points definitely settled so as to ensure accuracy in future reports.

68. During the half year under review the expenditure has been Rupees 9,758-6-3, for which 84 Acres containing 84,000 trees were planted out in the Nedumbur Plantations, and from Mr. Stanbrough's remark 43, apparently in the Amarambeliem Plantation, but this last is not included under "Results." Seventy-three Acres were cleared and pitted in the latter plantation, and the whole were weeded, pruned, fire traced, etc., though this is not stated by Mr. Stanbrough whose report is not so carefully prepared as could be wished. The receipts for the half-year were Rupees 5,431-9-0. From the monthly Progress Reports I gather that operations have been fairly successful, and that the Collector is satisfied with Mr. Stanbrough's supervision.

69. *Palghat Range.*—The report deals with two mixed plantations, formerly classed as firewood, known as Nochipully and Pooliampully, with a planted Area of 181½ Acres which have cost Rupees 7,150-9-1 from the commencement, and Rupees 93-14-6 during the half-year, for which 46,500 trees of various description are reported established.

As these plantations have been merged in the adjoining forests of Cheruthoni on my suggestion approved by the Collector (*Vide* Board's Proceedings, Revenue, No. 180-2,732 of 23rd September 1874,) it appears unnecessary to offer any further remarks. There should be no more expenditure on account of establishment.

FIREWOOD RESERVES.

70. *Cuddapah.*—There are five Firewood Reserves known as Baulpully No. I. and II., Sullaguntachanoo No. III., Codoor Hill No. IV., and Yerragoontacottah No. V., with an estimated area of 9,230 Acres. The Deputy-Conservator makes no attempt at dividing the area into stocked, half stocked, and bare, which is of great importance to enable us to estimate our yield per acre, and should be at once commenced. Meanwhile the total area has been *classed* as half stocked.

71. The expenditure from the commencement has been Rupees 3,445-0-11. Nos I. and III. are thoroughly fenced. Fencing is in progress in Nos. IV. and V., but has not yet been commenced in No. II.

72. The Collector has explained (Board's Proceedings, No. 121-2,08[illegible], dated 4th August 1874, the points alluded to in last Report, and justified the retention of two watchmen for Nos. I III, and V., but I have to remark, with reference to the concluding paragraph of his letter that it has been decided not to include Fuel Plantations in the area required for Fuel Reserves, and that the full estimated extent of 20 square miles of natural jungle, should therefore be reserved if available.

73. The expenditure during the half-year has been Rupees 252, representing the pay of the watchers, up-keep of a nursery in No. III. Reserve, and protection from fire. Mr. Yarde states that greater progress would have been made had it not been for great heat in the months of March, April and May, but we do not expect progress in the non-planting season if fires, cattle, and goats are excluded, it is all we can reasonably hope for. Mr. Yarde further states that there is a delay in carrying on the fencing owing to doubts as to some Shotriemdar's boundary, which has doubtless since been settled.

74. *North Arcot.*—The Collector signs the Return, which has therefore, I presume, been drawn up by him and not by Mr. Sheffield. He includes the Amboor Reserve (A.) of 3,840 Acres, which I have excluded from the general Return, as no final orders have been passed for its constitution and enclosure. There is therefore only one reserve known as B. or Mamandur, with an area of 2,560 Acres. The expenditure from the commencement has been Rupees 2,359-4-5, exclusive of Rupees 222-10-6 expended in the Amboor Tract.

75. The expenditure during the half-year has been Rupees 72-2-6 for which the fences have been kept in good repair, seed collected, and [illegible] paths commenced. At the date of submission of the report all work was at a stand-still for want of labor.

76. This district is [illegible] 4,480 Acres short of the estimated reserved area required, as remarked in my last memorandum, and it is hoped that Government will pass early orders to enable us to make good the deficiency.

77. *South Arcot.*—There are ten Reserves, classed as Imperial, known as Moottacadoo Siroovady, Cottamangalam, Padeperam, Periyamoor, Gungavarum, Modenai, Chinnasamudrum, Patingolathoor, and the Cusba Reserve (Trivomalai).

78. The estimated area is 40,550 Acres of which 14,000 Acres are classed as stocked. Twenty three thousand seven hundred and fifty Acres half stocked, and 2,700 Acres bare, but as the tracks have never been surveyed, the estimates may of course be wide of the truth. The expenditure from the commencement has been Rupees 6,980-14-8, not including any share of supervision, office, etc. The receipts have been Rupees 398-12-4. These reserves have recently formed subject of correspondence and will, it is hoped, be shortly demarcated, surveyed, and the requisite permanent establishment employed for their conservancy and improvement.

79. During the half-year, the expenditure was Rupees 973-15-8, and receipts Rs. 376-15-4 Seven thousand nine hundred and twenty-six trees were planted out, and owing to unfavourable weather 1,[illegible] died, leaving the total established from the commencement to fill up bare places at 84,210. This is not unsatisfactory, considering that, meanwhile, the whole jungle has also been conserved, and fire excluded for less than Rupees 7,000 in all, the main portion of the receipts having meanwhile been credited to Jungle Conservancy, of which we have no return.

80. The Deputy Conservator must, however, trust more in future to natural reproduction and dibbling in of seed, than planting out from nurseries into pits.

81. The Collector sends a copy of the Deputy Conservator's report instead of the original, which appears unnecessary, and causes delay in submission.

82. TRICHINOPOLY.—There are five Firewood Reserves known as Lalapett, Tanimallai, Punjuntangi, Minnacaraloo, and Sripurandum with an estimated area of 2,734 Acres of which 2,100 Acres are classed as stocked, and the remainder half stocked and bare. I have included the 476 Acres in the Sripurandum Reserve, with regard to which Mr. Hadfield appears doubtful in the half stocked area.

83. The expenditure from the commencement has been Rupees 3,904-7-2, and the receipts which are all from the Lalapett Reserve Rupees 715-10-2.

84. From personal inspection, I can state that the Punjuntangai Reserve is nearer 5,000 than 1,000 Acres in extent, and I believe that these reserves will well repay expenditure, and prove very valuable on the opening of the South India Railway extension. Mr. Hadfield remarks, with reference to the Sripurandum Reserve, that there are 20,000 Acacia Arabica trees in 50 Acres which is satisfactory. Operations during the half-year have consisted in fencing, collection of seeds, and formation of nurseries.

85. Planting out from nurseries will never pay in these reserves, and Mr. Hadfield must trust to sowing "*in situ*" and natural reproduction by the exclusion of fire and cattle, for recovering the bare and half stocked area.

86. The expenditure during the half-year was Rupees 397-14-4, consisting mainly in the pay of the maistry and watchers employed to prevent fire and cattle trespass. The receipts during the half-year from the Lalapett Reserve were Rupees 63-11-7.

87. TINNEVELLY.—The reserves consist mainly of tank beds which have been conserved and sown with Acacia Arabica. They have been divided into four circles for the purpose of inspection, and I think it will suffice in future if we deal with the total area, expenditure, and receipts of each circle.

88. The estimated acreage is not given, but I have exhibited that shown in the forme report by the Collector, viz., 2,000 Acres, and classed it all as half stocked, in accordance with

the Deputy Conservator's return. I observe that, whereas at the date of last report there were nineteen reserves, there are now twenty-five. No explanation as to the increased number is given nor any estimate in the column of remarks of the number of trees. This should be rectified in the next return.

89. From personal observation, I have reason to believe that Mr. Hayne never really knows, from month to month, what area may and may not be placed under his charge as Imperial Forest Officer by the Collector, and therefore experience some difficulty in knowing what to class as Fuel Reserves. This should not be. The orders of the Government of India on the subject of Forest Reserves should, I think, apply equally to Firewood Reserves, of which a register should be kept and no tract alienated without the sanction of Government. I have recently addressed the Board on this subject, with reference to Proceedings No. 1,87-2,793 of 28th September 1874. It is most important in this district that we should know exactly the area and number of trees, in order to provide for the fuel supply of the South India Railway extension.

90. The expenditure from the commencement is given by Mr. Hayne at Rupees 7,065-0-8, but there is a discrepancy in the Return under *Manur Kolum* and in the column of "expenditure under all heads up to commencement of the half-year." In the former, the *total* expenditure would appear to have been Rupees 186-3-0 and not 261-15-0, an error which appears to have been rectified without remark in adding up the totals of all expenditure. In the latter two figures give a total of Rupees 2,830-10-7 and Rupees 5,87-4-4 and not Rupees 2,840-10-7 and Rupees 5,97-4-4 respectively. The excess of Rupees 10 has therefore been deducted; with ordinary care such errors should not occur. The total receipts have been Rupees 103-11-3.

91. The expenditure for the half-year amounts to Rupees 1,167-12-4, consisting mainly of the pay of Kavulgars and collection of seed, of which 300 measures were sown in No. I Circle. The Deputy Conservator has done his best to exhibit the expenditure accurately under each head, and for each reserve, and has included the pay and travelling allowance of the Overseer in charge under "*permanent;*" and that of the Writer, Office Peons, Maistries, and Kavulgars under "*hired*" as they are paid from Working Charges, as already remarked in reviewing the North Arcot Return, paragraph 73, some definite orders are necessary for exhibiting those charges. Meanwhile the Tinnevelly Return is so far satisfactory as it exhibits exactly the total expenditure incurred exclusive of Supervision and Office contingencies which cannot well be included. The next Return will, it is hoped, give us more information regarding work done, but it is important that the Deputy Conservator should know exactly what is expected of him and not be considered bound to take over, for Imperial conservancy, every tract which cannot be conveniently maintained from Jungle Conservancy Funds.

92. *Coimbatore District, Mettupolliem and Bolamputty Rang* —There are three Firewood Reserves near Mettupolliem known as the H. K. and M. or Nos. I., II., and III. The total estimated area is given as 8, 6 and 5 square miles respectively, but, as orders have recently been passed altering and circumscribing the boundaries, no reliance can be placed on the estimate. The expenditure from the commencement has been Rupees 2,060-6-[illegible] and Rupees 13-1-0 during the half-year mainly on account of fencing which, in the case of the M. Reserve, has cost upwards of Rupees 1,400 and is of no use.

93. I do not understand how the watchers, who were employed on these reserves, have been paid, probably they were Tannah peons on the fixed establishment. Mr. Wedderburn has now ordered the entertainment of Iruler watchers for each tract.

94. The Walliar Reserve in Coimbatore which it is proposed, in future, to style the Sholacurray Firewood Reserve, to distinguish it from the Malabar Walliar Reserves (Board's Proceedings, No. 180-2,732, dated 23rd September 1874,) has cost up to date of return Rupees 12,616-2-11 and the receipts have been Rupees 559-1-6. The area is "not known," though I observe that it was given in the former reports as 1,010 Acres. The results have hitherto been, as already reported, very unsatisfactory.

95. The expenditure during the half-year has been Rupees 409-8-1 mainly on account of the pay of a maistry and permanent coolies who have now been dispensed with as useless. Two watchers are now in charge. Five thousand and eighty casualties are reported, and 2,600 trees appear to have been planted out, those are chiefly of descriptions which should find no place in a Firewood Reserve. As Mr. Morgan remarks we must trust mainly to natural reproduction aided by dibbling in of seed of quick growing trees. Exclusion of fire and goats is of paramount importance.

96. *Salem.*—There are eleven reserves known as A., B., C., D., and E., and Ummeary, Pellapully, Koonapa Combai, Utengherry, Singarapett and Kurroor, with an estimated aggregate area of 19,369 Acres, the formation and maintenance of which have cost Rupees 15,276-5-7 from the commencement, including pay of the establishment actually employed in them, and the receipts up to date have been Rupees 375-8-0. Some of these reserves are fenced or "close" and some are unfenced or "open" but Mr. Brougham's report gives no information on this head, though with regard to the three last he states that 'fencing work is under progress." He further states that "no estimate can be made of the bare spaces" but I think it imperative that this should be done by degrees, in order that we may arrive at some conclusion regarding the "stocked," and "unstocked" area, and be able to judge of the progress made by comparison of the areas actually under crop. This will, of course, be a work of time, and at first the estimates will of necessity be rather vague. still I think a commencement should be made. Meanwhile the total area has been transferred from stocked to half stocked class to which it more properly belongs. The Collector in his letter to the Board, recorded in Proceedings, No. 144-2,489, dated 27th August, adduces adequate reasons for the retention of all the reserves, pending actual survey and experimental coppicing in the older reserves known as A., B., C., D., and E. I may state that experimental coppicing in the A. Reserve have already been carried on over 10 Acres, with the satisfactory yield of about 12 tons, per acre, and that the trees, chiefly *Acacia Arabica*, are reported as sprouting freely from the stalks.

Full details of this will be given on receipt of Mr. Brougham's official report, and in the next half-year's return.

97. Operations during the half-year include the broad-cast sowing of 28¼ Acres with *Acacia Arabica*; opening of 9,525 pits, of which 1,400 were washed away by rain; reopening of 144½ chains of channelling, and fencing of the Utengherry reserve. The expenditure has been Rupees 1,425-5-8, of which the charge for permanent establishment, amounting to Rupees 383-1-9, appears to be equally divided betwixt all the reserves without reference to area. Some definite system must be adopted with regard to the apportioning of these establishment charges.

98. The Acting Deputy Conservator should, I think, state concisely in his next, the progress made, and general condition of the reserves, either in the remark column or in a separate memorandum. It would be interesting to know if fire had been totally excluded from the reserves, and the results of the admission of cattle from the neighbouring villages under certain restrictions.

99. *Malabar District, Palghaut Range.*—There are two tracts classed as Firewood Reserves known as Poolambarai (Walliar) and Olavacode, but as the latter contains no trees, and is to be abandoned, it need not be considered.

100. The gross expenditure from the commencement has been Rupees 24,892-3-7, which is mainly the purchase money of the Poolambarai tract. The area is given as 1,712¼ Acres, and with the tract recently purchased will form a most valuable reserve. It is proposed to style the whole "The Walliar Firewood Reserve" and alter the name of the Coimbatore Walliar Reserve to "Sholacurray Firewood Reserve" which, I think, a good idea.

101. The Expenditure during the half-year has been Rupees 500-1-4 and Receipts Annas 8-6, but there is no information given as to the nature of work done. The expenditure is all classed under protection from fire, and hired establishment.

I hope we may have some details of work for the current half year. The Collector sends a certified copy of the Return, instead of the original, which appears unnecessary.

102. I think it would be better if the Tahsildar submitted his report to the Head-Assistant at Palghaut who could send it on in original with his remarks through the Collector's office copy being available in the Tahsildar's Cutcherry.

103. I have transferred the whole area of Poolamparai reserve stocked, as shown in the range Return, to half stocked, to which it more properly belongs.

Enclosure No. 1.—Report on the Plantations in the several districts of the Madras Presidency for the half-year ending 30th June 1874.

Enclosure No. 2.—Report on the Firewood Reserves in the several districts of the Madras Presidency for the half-year ending 30th June 1874.

Enclosure No. 3.—Statement A. showing the extent of existing Plantations (under Imperial Forest Department) in each district, and the class to which they belong, for the half-year ending 30th June 1874.

Enclosure No. 4.—Statement showing the extent of existing Firewood Reserves (under Imperial Forest Department) for the half-year ending 30th June 1874.

Enclosure No. 5.—Report on the Jungle Conservancy Plantations in the several districts of the Madras Presidency for the half-year ending 30th June 1874,

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Enclosure No. 6.—Report on the Jungle Conservancy Firewood Reserves in the several districts of the Madras Presidency for the half-year ending 30th June 1874.

Enclosure No. 7.—Circular.

Office of Inspector of Forests,
Ootacamund, *16th November* 1874.

No. 430.

From

Captain CAMPBELL WALKER,
Officiating Inspector of Forests,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

Sir,

I have the honor, in continuation of my Report dated 4th November 1874, No. 410, to submit the half-yearly Returns of Plantations and Firewood Reserves for the Districts of Ganjam and Madura as received from the Collectors.

2. The Collector of Ganjam submits a blank Return, and states that there are "no Fuel Reserves or Plantations in this district." Mention is distinctly made of an experimental plantation (teak, etc.) in the Administration Report for 1872-73, and a small allotment under this head which I had struck out in revising the Budget for the current year was eventually retained for its upkeep.

3. The Collector of Madura states that "there seems to be no reason for the delay" which has occurred in the submission of the reports, and Mr. Villiams, in his forwarding letter, dated 22nd October, vouchsafes no explanations; copies of the Deputy-Conservator's Returns are submitted instead of the originals which, as already pointed out, appears unnecessary.

There are four Plantations, of which Nos. I. and III. are Experimental timber (teak) No. IV. Experimental firewood (*Acacia Arabica*), and No. II. the small Plantations of *Eucalypti* and *Acacia* on the Pulney Hills.

5. No. I. VANNATHI PARAI.—5 acres containing 4,315 trees. Cost from the commencement Rupees 1,242-10-10, during the half-year Rupees 69-2-2.

The results are good, but the expenditure has been high. Mr. Williams submits a statement of measurements of trees in the several plantations. I would not recommend any extension of this plantation at present for reasons already given in my Inspection Report, and the expenditure should be reduced to a minimum.

No. II. KODAIKANEL (*Eucalypti* and *Acacia*).—These are really two distinct plantations extending over 21½ acres, though the expenditure appears to have been lumped. The total has been Rupees 2,071-1-5 from the commencement, and Rupees 129-6-0 during the half year. 7,523 trees are reported established; the area remaining unplanted is not stated, but it probably extends to about one-half of that entered as planted.

The Collector states that, "much of that planted (near the Post Office) is unsuitable, and the rest of the ground in the vicinity is still worse;" after recent careful inspection, I cannot agree with him.

The land was originally the site of the native huts, and, on their removal, it was determined to plant it. Although not such as might have been otherwise selected, it is, with the exception of some rocky portions which have not been planted, fairly good, and the trees are generally thriving, though many were planted out too young from the nursery beds. I would plant up the remaining portion next year and then close the plantation. The same course should, I think, be adopted with the Acacia plantation at the other end of the lake. As reported to Government it is the unnecessary delay which has occurred in planting up the total areas which has materially enhanced the expenditure.

No. III. VALANCOMBAI (TEAK).—2½ acres containing 2,112 trees. Cost from the commencement Rupees 537-5-9, during the half-year Rupees 60.

Area available for extension not known, but the Collector states that he has directed the Tahsildar of Pulney to ascertain it. I requested Mr. Williams to do this last July, and regret to learn that land has been granted in the vicinity on putta during the last two years. If I mistake not orders to the contrary were issued at the time the experiment was commenced.

The growth has been very favorable, though the trees have been ruined by over-pruning as stated in my Inspection Report now before Government. If not less than 100 acres of suitable land are available, I think planting should be extended as it will eventually prove valuable for local purposes.

No. IV. SATHANGUDY (FIREWOOD).—75¾ acres sown broadcast. Cost from commencement Rupees 457-4-10, during the half-year Rupees 373-11-7. Results have hitherto been unsatisfactory, and unless this year's are very promising I would recommend that the experiment be abandoned, and our efforts restricted to tank-beds and reproduction in natural jungles.

6. FIREWOOD RESERVES.—I entirely concur with the Collector in his remarks regarding the non-existence of any real Firewood Reserves. Nothing has really been done in this respect, notwithstanding the repeated orders on the subject.

To class an unknown and undemarcated area of open jungle as a firewood reserve is to misapply the term, and still more to so designate a bare hill side selected and enclosed by the Sub-Collector at the expense of Jungle Conservancy Funds as an experiment. I cannot too strongly deprecate such a system, which would only mislead the Board and Government. I have pointed this out to Mr. Williams when I visited the district, and drawn his attention to the orders regarding the formation of reserves which were amongst the records of his office. I am astonished at

his continuing to exhibit as *Reserves* the open tracts referred to, and regrets exceedingly that after the care and trouble taken in selecting and reporting on suitable blocks, the reservation of which was approved of by Government (G. O. Nos. 54 and 1,064, dated 24th March and 15th June 1871,) no progress has been made since 1871. I have referred to this point also in my Inspection Report, and consider that the real demarcation, survey, and reservation of blocks of firewood jungle is one of paramount importance in the Madura District. The expenditure is entered as *nil*, but on my recent inspection Mr. Williams gave the care of these tracts as his main reason for entertaining a number of watchers paid from working charges. I am not aware to what head this charge has now been debited.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) CAMPBELL WALKER, Captain,

Officiating Inspector of Forests.

Enclosure No. 1.—Ganjam Collector's forwarding letter on the half-yearly Report of Plantations and Reserves for the half-year ending 30th June 1874.

Enclosure No. 2.—Half-yearly Report on the Plantations and Firewood Reserves in the Ganjam District for the half-year ending 30th June 1874.

Enclosure No. 3.—Madura Collector's, forwarding letter on the half-yearly Report on the Plantations and Reserves for the half-year ending 30th June 1874.

Enclosure No. 4.—Mr. William's letter to the Collector of Madura, forwarding his half-yearly Report on the Plantations and Reserves for the half-year ending 30th June 1874.

Enclosure No. 5.—Half-yearly Report on the Plantations of the Madura District for the half-year ending 30th June 1874.

Enclosure No. 6.—Half-yearly Report on the Firewood Reserves in the Madura District for the half-year ending 30th June 1874.

Enclosure No. 7.—Statement showing the measurement of trees in the Madura District Plantations.

Pur 32 1874/75

ENCLOSURE No 3.

Statement A showing the extent of existing Plantations (under Imperial Forest Department) in each District, and the Class to which they belong, etc., for the half-year ending 30th June 1874.

No.	Name of Districts and Ranges.		Classes.					Expenditure up to end of 30th June 1874.			Receipts up to end of 30th June 1874.			Remarks.
	Districts.	Ranges.	Timber.	Mixed.	Firewood.	Experimental.	Total.	Rs.	A.	P.	Rs.	A.	P.	
1	Cuddapah	Cuddapah	...	...	1,678	50	1,728	38,317	12	10	...	...	...	As no reports have been received from the districts of Ganjam, Vizagapatam and Madura, those districts were omitted in this statement, together with Tinnevelly and [illegible], in which districts there are no plantations.
2	Bellary	Bellary	...	...	404¾	...	404¾	9,188	1	0	...	...	...	
3	Kurnool	Kurnool	...	...	...	15	15	1,714	9	0	...	...	...	
4	North Arcot ...	North Arcot ...	...	106	709	...	815	27,772	0	4	386	2	0	
5	South Arcot ...	South Arcot ...	...	...	...	7¼	7¼	469	10	10	...	...	...	
9	Salem...	Salem	...	...	...	6½	6½	3,669	9	7	...	...	...	
6	Trichinopoly ...	Trichinopoly ...	...	...	185	...	185	19,158	3	9	1,371	5	1	The area shown is [illegible] area only, except in the [illegible] and Bellary Districts, in which the relative acreage of plan[illegible] and unplanted is not shown, and therefore [illegible] which area classed as plantation has been entered, though it is probable that a large portion rem[illegible]
7	Coimbatore ...	Annamally ...	...	...	...	13	13	5,050	12	11	...	...	...	
		Sattiamungalam...	69	...	...	...	69	11,357	3	7	...	...	...	
		Collegal	56	...	...	...	56	11,828	4	0	...	...	...	
8	Nilgiris	Mudumallay ...	78	...	...	...	78	18,913	8	1	...	...	...	
		Seegur	20	...	...	...	20	3,646	14	0	...	...	...	
10	South Canara ...	South Canara ...	75	...	...	...	75	6,572	3	2	...	...	...	
11	Malabar... ...	Nelamboor... ...	2,990	...	...	...	2,990	2,01,173	10	9	*94,318	1	8	* The amount appears not to include the sums paid for the land, amounting to Rupees 94,000—*Vide* general remarks for this district.
		Chennat Nair ...	...	181¼	...	...	181¼	3,858	14	0	...	...	...	
		Total...	3,288	287¼	2,976¾	91¼	6,643¾	3,60,691	5	10	96,075	8	9	

OOTACAMUND,
31st October 1874.

(Signed) CAMPBELL WALKER, Captain,
Officiating Inspector of Forests.

Rev 35/1875

ENCLOSURE No. 4.

Statement B showing the extent of existing Firewood Reserves (under Imperial Forest Department) for the half-year ending 30th June 1874.

No.	Name of Districts and Ranges.		Acre.	Expenditure up to end of 30th June 1874.	Receipts up to end of 30th June 1874.	Remarks.
	Districts.	Ranges.				
				Rs. A. P.	Rs. A. P.	
1	Cuddapah	Cuddapah	9,230	3,445 0 11	... .	As no reports have as yet been received from the districts of Ganjam, Vizagapatam and Madura, those districts are omitted in this statement together with Bellary, Kurnool, Tanjore and South Canara in which there are no firewood reserves.
2	North Arcot	North Arcot	2,560	2,359 4 5	... ...	
3	South Arcot	South Arcot	40,550	6,980 14 8	398 12 4	
4	Trichinopoly	Trichinopoly	(*a*) 2,734	3,904 7 2	715 10 2	
5	Tinnevelly...	Tinneveliy..	(*b*) 2,000	7,055 0 8	103 11 3	
6	Coimbatore... ...	Bolumputty (Walliar)	(*c*) 1,010	12,616 2 11	559 1 6	The *total* area under Reserve is given whether stocked, half-stocked or bare, as the information received does not suffice to divide it. This must be done in future returns. In most cases the areas are only estimated, the several reserves not having been surveyed.
7		Mettapolliem	(*d*)12,160	2,060 6 6	... ...	
8	Salem	Salem...	19,369	15,276 5 7	375 8 0	
	Malabar	Chennat Nair	(*e*) 1,732¼	24,892 3 7	0 8 6	The Collector reports the acreage of the former is 1,800 (*Vide* Board's [illegible] F. No. [illegible] dated 23rd September 1874), while the statement shows only 1,712¼. The correct figure should be given in the next report.
		Total...	91,345¼	78,589 13 11	2,153 3 9	

(*a*) This is much under-estimated.

(*b*) The Deputy-Conservator does not state the area at all either in the body of his return or remarks, the figures are therefore taken from the previous reports.

(*c*) The Deputy-Conservator does not state the acreage of Walliar, but this was ascertained from the previous report.

(*d*) The area shown is very doubtful, the limits of these reserves have recently been circumscribed.

(*e*) 1,712¼ Poolambarai and 20 Oolavacode.

OOTACAMUND,
1st October 1847.

(Signed) CAMPBELL WALKER, Captain,
Officiating Inspector of Forests.

No. 1.—*Report on Firewood Reserves for the half year ending*

District.	Salem.		Coimbatore.	
Forest Range.	Salem.		Mettupolliem.	
Name of Reserve.	[illegible] Reserve, Mullapooram.		H No. 1	
Class and general description, nature of trees, &c.	Close reserve, unsurveyed, roughly demarcated. Trees, Acacia 10 per cent. Blackwood 5 per cent. Vengay, 5 per cent, &c. About 150 trees to the acre, in fully stocked portion.		Open reserve, surveyed, not demarcated. Trees, Acacia Arabica 20 per cent. Albizzia Lebbek 35 per cent. &c. 100 trees to the acre.	
Area and Stocking.	At the end of half-year.	Equal to fully stocked.	Up to end of half-year.	Equal to fully stocked.
	ACRES.	ACRES.	ACRES.	ACRES.
Bare 0	100	...	...	...
Full 1	150	30	400	80
Full 2	500	200	900	360
Full 3	500	300	900	540
Full 4	510	408	910	628
Full 5	800	800	2,000	2,000
Total...	2,560	1,738	5,120	3,608
As per last report...	2,560	1,500	4,500	3,000
Expenditure and Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.
	RS.	RS.	RS.	RS.
Year 1867	800	...	...	...
,, 1868	200	...	...	...
,, 1869	300	...	150	...
,, 1870	220	...	100	...
,, 1671	200	...	100	...
,, 1872	221	294	100	...
,, 1873	280	...	...	...
,, 1874 1st half.	266	...	193	...
,, 2nd half.	...	...	...	...
Total...	2,487	294	643	...
Detail of Expenditure.	In half-year.	Up to half-year.	In half-year.	Up to half-year.
	RS.	RS.	RS.	RS.
1. Purchase of land	...	...	...	...
2. Compensation	...	...	...	...
3. Survey and demarcation..	...	100	...	150
4. Enclosure and fencing ...	...	500	3	100
5. Protection from fire ...	...	450	190	...
6. Improvement...	195	581	...	200
7. Reboisement	...	...	...	...
8. Establishment... {Fixed.	35	300	...	...
{Hired.	36	250	...	...
9. Other outlay	...	40	...	...
Total...	266	2,221	193	450
Acres felled.	Nil.	5	Nil.	Nil.
Yield in tons, green.		60		
General Remarks.	Stock improved considerably owing to plentiful rain. Natural growth good. Seed sown in 59 acres, germinated well. About 1,000 seedlings of Acacia put out. No felling.		620 acres of poor jungle added during the half-year. Reduction of stocked area due to heavy fire in 500 acres. Fire-traces widened during the half-year after the fire.	

No. 2 *Report on Plantations for the half-year ending*

...ICT.	South Arcot.
Forest Range.	South Arcot.
Name of Plantation.	Trinomalai.
Class and general description of plantation, nature of trees	Firewood, Casuarina for Railway fuel. Trees 350 to the acre.

I.—*Area and Stocking.*	In half-year.	Up to half-year.
Planted acres	...	100
Unplanted...	...	150
Total ...	250	250

II.—*Expenditure and Receipts.*	Expenditure.	Receipts.	Area planted in each year.
	RS.	RS.	ACRES.
1867	...	...	...
1868	...	...	100
1869	4,017	...	...
1870	2,520	...	...
1871	630	250	...
1872	525	250	...
1873	120	100	...
1874 1st half	60	...	...
1874 2nd half	...	...	...
Total ...	7,872	600	...

III.—*Detail of Expenditure.*	In half-year.	Up to half-year.
	RS.	RS.
1. Purchase or rent of land.	...	...
2. Compensation	...	...
3. Enclosure and fencing...	...	217
4. Formation	...	1,280
5. Improvement and conservation...	...	2,715
6. Establishment.. {Fixed.	60	600
6. Establishment.. {Hired.	...	...
7. Other outlay	...	...
Total...	60	7,812

IV.—*Acres felled.*			
Yield, green.. {Trunks ...	Nil.	Nil.	Nil.
Yield, green.. {Branches..			
Yield, green.. {Timber ...	Nil.	Nil.	Nil.
Casualties	50		12,000
Casualties replaced	...		12,000

V.—*General remarks and results.*	
	Trees well grown; will be fit to fell in six months.

Rev 34/1857/75

Rev 20/75

5/6/78 1287

CIRCULAR No. 35.

Addenda, Corrections, &c., to Circular No. 35 (Board's Proceedings, 65-[illegible] 13th May 1874, and the forms therein prescribed for accompanying general review of operations for the half-year ending 31st June 187[illegible]

1. Attention is called to the extent and nature of the information required by paragraphs 2 and 3 of the Circular, which in several cases appears to have been lost sight of.

2. *In the Plantation Statement, Column* 2, the area planted and available for extension, at the *commencement* of the half-year, should be clearly shown: when the available unplanted areas are not known, or there is none, the column "Unplanted" should be left blank, and the reason stated in remarks. It is, however, very important that the area available, for extension of each plantation, should be ascertained.

3. Expenditure, Column 4, under Establishment *Permanent*, include any sanctioned and paid under B. Establishment, *solely* employed on plantation work, whether in the field or office, but not the general establishment, employed in the range or taluq under *hired*; the gardeners, maistries, etc., paid from A. Working Charges, and not chargeable to any special work, such as improvement, fencing, etc., should be included.

4. An extra column may be introduced for contingencies.

5. Before the column "Total up to end of half-year," insert another as *Total* drawing the lines so as to exclude the former from the heading "During the half-year."

6. Under 6, *Results*, insert a final column as "Area or number of trees planted out up to the end of the half-year." This will include the area or numbers shown under During the half-year, and should coincide with the opening column under 2, Acreage, in the return for the next half-year, unless unforeseen circumstances have damaged or destroyed a portion of the planted area which should be explained. It is preferable always to exhibit the acreage instead of or as well as the number of trees planted.

Firewood Reserve Statement.

1. Column 2, Acreage, the areas stocked, half-stocked, and bare at the *commencement* of half-year, should be carefully estimated and exhibited (*vide* remarks on the returns for half-year ending 30th June 1874). When not known or doubtful, it is best to exhibit as half-stocked; the total areas, under Reserve, must also be carefully estimated until actually surveyed and mapped.

2. Under Column 4, Expenditure, *vide* foregoing remarks for plantation statement which should be adopted, as also with regard to the final extra column under 6, *Results*, which should exhibit the area really fully stocked at the end, in comparison with that at the *commencement* of the half-year, as shown in the opening column under 2, *i. e.*, it should be the sum of the opening column, *plus* the area or number exhibited, under Results during the half-year. The acreage should invariably be shown

3. The returns should, invariably, be submitted in foolscap size book form to admit of ready reference.

(Signed) CAMPBELL WALKER, Captain,
Offg. Inspector of Forests.

Exd. W. H. French.

16/75 - N° 874

PROCEEDINGS OF THE BOARD OF REVENUE, dated 26th April 1875, No. 1032.

Read Report from the Inspector of Forests, dated 4th November 1874, No. 410, and 16th November 1874, No. 420, on plantations and firewood reserves for the half-year ending 30th June 1874.

THE foregoing report on the plantations and fuel reserves for the half-year ending 30th June 1874 will be submitted for the information of Government. Captain Walker has summarized sufficiently fully the points as regards each plantation and reserve which require notice, and the Board will abstain from going over the same ground and confine themselves to such general remarks and orders as seem called for.

2. First as to the form of the statements, which are now submitted for the first time. The form devised by Captain Walker providing as it does for the exhibition in a uniform shape of the most important particulars of information as to the state of each plantation and reserve, and as to the progress made during the period to which each report relates, is a great improvement on the previous system. But in attempting in separate Proceedings to utilize these statements for purposes which are certainly most important, and ought to be fulfilled by them, the Board have learnt their deficiencies, and have devised the annexed forms, which appear to them an improvement on Captain Walker's, and on which his opinion is now requested.

3. The statements are intended to show, amongst other things, the cost of the plantations and reserves to Government, and to furnish materials for an estimate of the financial success or otherwise of each speculation. They should also exhibit the degree in which the works necessarily incidental to such undertakings have been fulfilled in each case, and afford data for computing the cost of each class of work. They do not at present fulfil these requirements; and some modifications, chiefly provision for further distributing the recorded outlay, both as to object and time, are necessary. These can be effected without entailing very much additional trouble, after the first report is drawn up, and without requiring much additional space.

4. Form No. 1 is intended for firewood reserves. The Board have filled in some specimen entries to show how the form is intended to be used. As to the estimate of stocking, the Board think that to class from 0 to 10 would merely give a specious appearance of accuracy, and that degrees from 0 to 5 will suffice for practical purposes. The form shows readily by means of comparison of the present and previous fully stocked area, the amount of improvement effected during the period under report. The expenditure and receipts are distributed by years, which will enable interest to be calculated and show the age of the reserve. In the third section of the form details of the expenditure are given up to and in the period under report; and from this part an idea can be formed of what has been done for the reserve, and what remains to be done; and also of the cost of each operation per acre, whence useful averages can be got. The fourth section shows the results of felling, and the fifth is for general remarks and brief detail

of what has been done during the period under report. It seems to the Board that, as regards reserves at least, such figures as are given under results in Captain Walker's statements, viz, casualties, number of trees established, &c., must be purely imaginary and unreliable; and that general statements, and the estimate of the degree of stocking are the best indices to the state of the reserve and the results of the period under report.

5. Form No. 2 is for plantations and is framed on similar principles; but provides for the exhibition of casualties and shows the age of each portion of the planted area. The Board do not see any particular advantage in having these reports drawn up half yearly; and suggest that they should be made annual, and the first be submitted at the close of the year 1874-75. If this is allowed, official must be substituted for calendar years in the forms. It is intended that all expenditure and receipts should be given in whole Rupees.

6. The Board fully concur in Captain Walker's judicious remarks in paragraphs 14 to 18 of his report, and request the particular attention of Collectors and forest officers to them. As to the question whether reports on jungle conservancy reserves, and plantations should pass through the Inspector, the Board are of opinion that when such reserves, &c., are in the charge of the Deputy Conservators, the reports should be sent through the Inspector; otherwise not. But this is a point which will depend in great degree on the position which will in future be assigned to the Inspector.

7. The Collector of Cuddapah will report with reference to paragraphs 23, and 25. As to Bellary, the Board observe that the transfer of the Gooty plantation to Jungle Conservancy has been recommended. In separate Proceedings, the Board have called for further report from the Collector on the subject of extending planting in the district. The question of the Woncarrum plantation in Kurnool has been disposed of. The remarks of the Inspector seem to indicate that but little interest is taken in forest matters in that district. The North Arcot forest officer should furnish explanation in his next report with reference to paragraph 32. The future classification of the South Arcot Casuarina plantations has been settled.

Board's Proceedings, dated 10th March 1875, No. 568.

8. The Board are glad to learn that notwithstanding the heavy charges against the Trichinopoly Pudugay plantations they are likely to prove so successful. The Board are decidedly of opinion that no further outlay should be incurred on experimental Teak planting in the Annamalais. It appears that existing plantations can be kept up by the permanent establishment; and it is satisfactory to observe that, at least, no ultimate loss is anticipated. The Board are inclined to agree with the Inspector in his remarks (paragraphs 58, 59) as to the futility of small experimental plantations; but until the professional authorities come to an agreement as to the expediency of growing Sandalwood artificially, matters had better remain as they are. Explanation from South Canara is called for with reference to paragraphs 63 and 65. A special report on the Nelambur Teak plantations is due from the Collector of Malabar on a call from the Government of India.

9. In their report on railway fuel-supply, the Board have considered the circumstances of each district, and no further review is now called for. The Collectors concerned will pay attention to Captain Walker's remarks. With reference to paragraph 91 the Collector of Tinnevelly must understand that no transfers from Jungle Conservancy to Imperial departments can be made without sanction. The Board trust that the next report as to the Coimbatore portion of the Walliar reserve, now to be called Sholakarai, will be more satisfactory. The Collector of Madura will submit a special report and explanation with reference to the fuel reserves, and state why the orders which have been issued have not been carried out.

10. The Board thank Captain Walker for the trouble he has taken in placing the facts to be gathered from the reports so clearly before the Board.

(A true Copy and Extract.)

Acting Secretary.

To the Secretary to Government, Revenue Department, with printed copies of Inspector's Reports, Circular No. 35, and two Statements, and original enclosures to be returned.

,, the Inspector of Forests.

,, the Collectors in charge of Forests, with printed copies of Inspector's Reports, and two Statements.

Ans: 1875: Sept
No 20 of 1857

1875.

Board of Revenue,

MADRAS.

PROCEEDINGS, 26TH APRIL 1875, No. 1,032.

Dept May/75

Encl. 3
33 Pcls

Received 5: May

APRIL.

Forest No. 62.

Plantations and Fuel Reserves.—Report of Inspector of Forests on — for the half-year ending 30th June 1874, reviewed and submitted for information of Government with remarks. Opinion of Captain Walker requested regarding certain forms of Statements devised by Board. Report called for on certain points relative to the subject.

Walker
No 874 - 5 June 1875

20 May/75 R62 2 June/75