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MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

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GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

15th November 1878, No. 1,828.

Read the following paper :—

No. 162. From R. W. BARLOW, Esq., Commissioner of the Nilgiris, to C. G. MASTER, Esq., Secretary to Government, Revenue Department, dated Ootacamund, 5th October 1878, No. 200.

I HAVE the honor to forward the Administration Report on the Government Cinchona Plantations for the official year 1877-78.

2. SEASON AND RAIN-FALL.—The season, on the whole, was not favorable to the plantations. The early months of the year were very dry, and the rains were rather late, but the fall exceeded that of the previous year. 116·89 inches of rain fell at Neddivattam against 96·64 in the previous year. At Dodabetta the fall of the year was 61·33 inches against 27·70 in 1876-77. The months of June and August were exceptionally wet months at Neddivattam, the fall in 28 days of the former month being 41·80 inches, and for 29 days of the latter 31·02. In the months of December and February very high winds prevailed at Neddivattam, destroying the foliage of the trees; and as, during the subsequent months, little or no rain fell to enable the trees to renew their leaves; the general appearance of the plantations at the end of the year was not satisfactory. The year was, however, very favorable for the collection of crop, and a larger quantity of bark was taken than in previous years Statements of rain-fall at Neddivattam and Dodabetta are appended.

3. RECEIPTS AND EXPENDITURE.—Statements are enclosed showing the expenditure in detail on each of the plantations.

Receipts.—The receipts amounted to Rs. 3,58,751-15-7 against Rs.1,10,457-7-10 in the previous year.

Expenditure.—The expenditure amounted to Rupees 69,771-13-3 against Rs. 59,630-1-3 in 1876-77. The net profit of the year is, therefore, Rs. 2,88,980-2-4.

4. PERMANENT PLANTATIONS, (*a*) *Number of Trees.*—The number of plants in permanent plantation had been considered to be about 1,190,458. During the year Government deputed Captain Walker to make an enumeration of the trees on the Government plantations. The result of it shows that only 569,031 trees now exist, viz.—

At Dodabetta	226,936
„ Neddivattam	208,780
„ Pykara	133,315
Total ...	569,031,

which are thus classified—

Red Barks	260,837
Crown Barks	305,432
Yellow Barks	552
Grey Barks	1,874
Other species	336
Total ...	569,031

In connection with this subject, I may remark that Captain Walker has divided each plantation into sub-divisions, showing the acreage of each year's planting and the number of trees existing on each. Revised plans of the plantations with the above particulars are now being prepared in the Survey Office.

(*b*) *Growth of Trees.*—The average height of the oldest (1862) Succirubra plant at Neddivattam is about 37½ feet, with a girth of 28 inches. The Officinalis trees in the 1863 planting at Dodabetta have attained an average height of 28 feet, with a girth of 22 inches.

5. PROPAGATION, (*a*) *Propagation.*—The number of cuttings propagated during the year at the propagating houses attached to the Dodabetta Plantations was 14,876, viz., 2,806 of *C. Pitayensis*, 12,070 of *C. lanceolata*, making a total of 41,184 in all up to the close of the year under report. Of this number 5,000 were planted out in the Dodabetta Plantations, 400 sent to Ceylon, and 2,000 supplied to the Neddivattam Plantations for the purpose of obtaining cuttings for stocking the new propagating house there, which was, however, not completed during the year, owing to the impossibility of conveying timber to Neddivattam on account of the bad state of the roads. It was completed in the early part of this year, and stocked with cuttings of the rarer species of Cinchona.

(*b*) *Nurseries.*—The number of plants distributed to the public during the year was 187,350 against 142,000 in the previous year. The number of plants propagated, however, was not equal to the demand, and the then Acting Commissioner proposed to extend the nurseries at Neddivattam (*vide* G.O., 11th June 1877, No. 1,946); but Government, in their order, dated 14th August 1877, No. 2,500, refused to sanction such a step, deeming it more desirable that the public should utilise the large quantities of seed which are available at the plantations. The quantity of seed delivered to the public during the year was 326 lbs! against 43 oz. in the previous year; 170,500 cuttings or shoots were also supplied to the public. It will thus be seen that the public have taken up Cinchona cultivation with some spirit, which cannot but be viewed with satisfaction by Government.

6. UP-KEEP, (*a*) *Weeding.*—The whole of the plantations were as usual thoroughly weeded during the year, and the weeds buried between the trees. At Neddivattam the weeds were unusually heavy, owing to the whole of the labor available having been engaged during the rains in the collection of crop. The Dodabetta Plantations received two weedings during the year.

(*b*) *Mossing.*—As stated in paragraph 11 (*b*) of my predecessor's letter, dated 31st December 1877, No. 171, recorded in G.O., 20th February 1878, No. 274, no account of the number of trees mossed was kept. The information will be available for the current year. The supply of moss is becoming a source of anxiety as there appears a likelihood of its running short. The question of reserving certain sholahs for the supply of moss is under the consideration of Government. In the course of years when the new Cinchona plantations lately opened out near the Government estates begin to yield bark, the demand for moss will be very great, unless coppicing is more resorted to than hitherto; but I am nevertheless opposed to the levy of any seigniorage.

(*c*) *Manure.*—Very little manuring was carried on at the Neddivattam and Pykara Plantations from insufficiency of labor. 17,000 trees were manured at Dodabetta with cattle manure. The effect of the application of this manure during the previous year was attended with very good results, the trees having made very fair growth during the year under report. More attention is now being given than previously.

7. CROP, (*a*) *Bark.*—The following statement gives the outturn of bark in detail:—

Dodabetta.

	lbs.
Natural Crown Bark	17,478½
Mossed do.	10,066
Renewed do.	5,401½
Branch Bark	5,855½
Total	38,801½

Neddivattam.

	lbs.
Natural Crown Bark	9,400
Mossed do.	9,669½
Renewed do.	4,962
Natural Yellow Bark	1,845½
Do. Grey	150
Do. Red	11,748
Mossed do.	16,407
Renewed do.	14,090
Dust	58
Mixed	181
Total	68,511

Pykara.

	lbs.
Natural Crown Bark	5,979
Mossed do.	4,944
Renewed do.	1,640
Natural Red Bark	5,328
Mossed do.	8,985
Renewed do.	4,093
Grey Bark	527
Total	31,496
Grand Total	138,808½

The crop was distributed thus—

	lbs.
To the Madras Medical Department	4,330
Do. Bombay do.	1,000
Shipped to England	132,951½
In Store	527
Total	138,808½

I have omitted to include the 100 lbs. of green bark supplied to Mr. Money, the cost of which the Government have ordered (*vide* their order, No. 1,164, dated 25th July 1878) should not be recovered from that gentleman. The bark, if dried, would have given about 30 pounds, which, if added to the above, makes the outturn 138,838½ lbs. The experiment of drying a small quantity of bark at Coimbatore will be carried out in a short time.

(*b*) *Tea.*—The Tea Garden attached to Dodabetta Plantations was leased to Major Jennings for Rs. 300 per annum. That gentleman now wishes to cancel his lease. I will address Government on the subject hereafter.

8. BUILDINGS, (*a*) *New Works.*—The Old Police Lines at Neddivattam were demolished, and in their stead 31 substantial cooly huts were erected. They are built with burnt bricks, and roofed with corrugated iron. A line for coolies was also erected at Dodabetta. The construction of a new ragi store at Neddivattam was sanctioned by Government in their order, dated 12th February 1878, No. 209. The work was at once put in hand and completed a few months ago.

(*b*) *Repairs.*—The drying shed at Neddivattam was temporarily repaired for drying the crop of one season only, viz., 1878-79, as the Government in their order, dated 18th January 1878, No. 95, declined for the present to sanction the construction of a new drying shed and store. The usual annual repairs to the permanent buildings of the plantations was carried out.

9. EXPERIMENTS.—The 1,000 experimental Succirubra trees at Neddivattam, referred to in paragraph 8 of G.O., dated 20th February 1878, No. 274, and which were left unbarked during the previous year, yielded during the year under report 3,200 lbs. of dry bark, or an average of 3·2 lbs. per tree. These trees have been barked *six* times, and still show no outward sign of decay. The 58 trees coppiced

in May 1873 now average 17 feet high, with a girth of 9½ inches. A row of trees alongside of these which were previously unbarked yielded 160 pounds of dry bark under the mossing process. Of the 57 trees coppiced in October 1873, 36 remain alive, and averaged at the end of the year 12 feet by 6 inches. The trees coppiced in May 1871 have made fair growth, but in height and girth do not equal a seedling of the same age.

Of the 50 *C. officinalis* trees coppiced at Dodabetta in June 1873, 43 remain alive, and have sprung very freely from the stools. Some of the stools have 18 to 20 shoots on them. I enclose a statement showing the growth of 7 of the largest of the remaining stools. With the exception of a few that were barked to obtain samples of coppiced bark for analysis, the shoots remain untouched; and, pending the orders of Government on Captain Walker's report in which this experiment is reported to be the most successful coppicing experiment in the plantations, I have directed the Head Overseer in charge not to interfere with this plot beyond weeding it. This is the experiment alluded to in paragraph 9 of G.O., 20th February 1878, No. 274. Samples of every description of bark of each variety from each plantation have been forwarded to Government for transmission to England for analysis. I think it is a pity that the coppicing experiments undertaken by the late Mr. McIvor were not carried out on a larger scale over an extended area; trees coppiced singly or by twos and threes and left under the shade and drip of others do not do well.

10. LABOR.—The labor difficulty becomes yearly a source of great trouble. At the beginning of the year the supply of labor was sufficient for all requirements, but sickness breaking out a large number died and others left through fear. During the wet months the roads to the Neddivattam and Pykara Plantations became impassable for cart-traffic, so that grain could not be got out for supply to the laborers employed in those estates which are situated 22 miles from Ootacamund at that season, the only and nearest market for grain, the supply at Gudalur having failed. An experiment was tried to introduce laborers from Coimbatore and Collegal; but this also failed owing to the climate and the work on the plantations being unpalatable to the men who were of the weaver caste, and who all absconded.

11. At Dodabetta also the labor difficulty is increasing owing to the low rate of wages usually given by us (4½ annas) compared with what coolies can earn for lighter work at Ootacamund close by where 6 annas per diem is easily procurable.

12. Mr. Rowson, the Assistant Superintendent of Neddivattam, has suggested an increase of pay to the laborers, and when budgeting for next year I shall address Government on the subject. The erection of the Ragi Store at Neddivattam and the storage of large supplies of grain will, it is thought, remedy the labor difficulty a little.

13. GENERAL REMARKS.—The plantations are still without a Superintendent, and continue to be under the control and responsibility of the Commissioner. By G.O., dated 15th January 1878, No. 72, Captain C. Walker was deputed to make a census of the trees in the Government Plantations, and to report on the present, past, and future prospects of the same, and that officer has submitted a very lengthy one, comprising all details connected with the history of Cinchona. In forwarding his report to Government with my letter, No. 133, of 16th July 1878, I remarked that "it will be carefully considered by the Cinchona Committee now sitting, and I abstain, therefore, from any remarks at present. The question of a special officer, however, to be in charge of the plantations for some time to come may possibly be taken up by Government at once. I beg, therefore, to submit that I very strongly support the proposal that some duly qualified person may be appointed as recommended." The report and opinion of the Cinchona Committee on this point has been some time in the press, and will be before Government in a day or two.

14. SUBORDINATES.—Mr. Rowson, Assistant Superintendent at Neddivattam, has given every satisfaction during the year, and the condition in which he has kept his plantation is highly creditable to him, considering the difficulty of labor supply.

T. Narrainsawmy Naidoo, the Head Overseer at Dodabetta, has also done very well. His pay has been increased to 150 Rs. per month.

Mr. Hillier, the Manager, appointed by Mr. Webster in June 1877, has worked very well, and given me satisfaction.

—

STATEMENT of Rain-fall at Neddivattam for the Official Year 1877-78.

Months.	Rain-fall.	Number of wet Days.
	IN. C.	
April 1877 ...	2 38	10
May „	3 12	12
June „	41 80	28
July „	8 70	25
August „	31 02	29
September „	14 75	24
October „	10 52	19
November „	2 79	5
December „	1 44	6
January 1878	... 10	1
February „	... ...	...
March „	... 27	1
Total ...	116 89	160

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

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STATEMENT of Rain-fall at Dodabettah for the Official Year 1877-78.

Months.	Rain-fall.	Dayson which Rain-fell.
	IN. C.	
April 1877 ...	3 73	8
May „	6 82	16
June „	8 13	21
July „	1 07	12
August „	3 77	23
September „	11 90	26
October „	11 14	27
November „	9 14	18
December „	4 95	13
January 1878	... 18	2
February „	... ...	...
March „	... 50	3
Total ...	61 33	169

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the growth of seven Coppiced Trees in the Dodabetta Plantations felled in 1873.

Number.	Height of Shoots.	Girth.	Number of Shoots.
	FEET. IN.	IN.	
1	14 6	8	3
2	10 3	6½	4
3	10 3	6½	4
4	15 ...	7	4
5	9 6	6½	8
6	11 3	6½	13
7	13 1	6	18

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the Receipts on account of the Government Cinchona Plantations for the year 1877-78.

Particulars.	Sanctioned Budget Allotment for 1877-78.	Actuals for 1877-78.	Actuals for 1876-77.
Crop.			
	RS. A. P.	RS. A. P.	RS. A. P.
Sale-proceeds of 1876-77, Crop	550,000 0 0	3,41,272 0 0	1,05,974 4 0
Value of Bark supplied to the Madras Medical Department	...	9,689 3 8	...
Do. Bombay do.	...	2,321 11 9	1,904 0 0
Rent of Tea Estate	...	183 13 11	...
Sale-proceeds of Plants and Seed	3,000 0 0	2,821 2 3	2,071 14 10
Miscellaneous.			
Sale-proceeds of wire	...	2,464 0 0	...
Miscellaneous	...	...	507 5 0
Total ...	1,53,000 0 0	3,58,751 15 7	1,10,457 7 10

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the Expenditure on account of the Government Cinchona Plantations on the Nilgiris for the Official Year 1877-78.

Particulars.	Sanctioned Budget Allotment for 1877-78.	Actuals for 1877-78.	Actuals for 1876-77.
Establishment.	RS. A. P.	RS. A. P.	RS. A. P.
Superintendent	...	...	1,340 5 4
Assistant Superintendent	3,600 0 0	3,700 0 0	2,500 0 0
Overseers	2,640 0 0	3,090 0 0	2,640 0 0
Manager	960 0 0	934 13 4	1,584 0 0
Peons	384 0 0	452 0 0	

STATEMENT showing the Expenditure on account of the Government Cinchona Plantations on the Nilgiris, &c.—(*Continued.*)

Particulars.	Sanctioned Budget Allotment for 1877-78.	Actuals for 1877-78.	Actuals for 1876-77.
Nurseries.	RS. A. P.	RS. A. P.	RS. A. P.
Nurseries	1,000 0 0	2,686 13 6	1,799 9 5
Propagation	240 0 0	777 10 4	
Buildings.			
New	6,000 0 0	1,548 6 6	6,715 8 11
Repairs	6,000 0 0	3,920 7 2	
Up-keep.			
Weeding	24,276 0 0	7,342 9 10	11,101 8 6
Roads		838 14 8	419 5 9
Pitting and Planting		143 9 2	487 2 8
Tools		611 5 0	571 6 6
Various		4,088 12 3	5,311 0 4
Manure.			
Manuring	700 0 0	461 4 9	459 3 5
Wire Shoot	...	235 2 4	
Collection of Crop.			
Barking and Mossing	15,000 0 0	6,646 13 10	5,020 8 9
Collection of Moss		8,738 0 6	7,038 2 10
Do. fibre		365 14 0	...
Packing...		1,892 5 2	755 5 0
Drying...		892 6 0	...
Storage and carriage to Stores ...		1,401 14 2	...
Carriage to Mettapolliem	7,500 0 0	836 0 0	11,353 7 6
Freight, &c., &c., &c.		16,629 6 5	
Miscellaneous.			
Peons' Clothing	100 0 0	72 13 9	80 0 0
Contingencies	1,000 0 0	303 3 0	453 6 4
Collecting Cinchona seed	...	39 3 0	...
Cinchona Enumeration	...	405 15 1	...
Unforeseen Chargss.			
Cost of Furnace bars supplied during 1876 and only paid for this year ...	...	519 1 6	...
Total ...	69,400 0 0	69,774 13 3	59,630 1 3

NOTE.—Rs. 3, being a refund into the treasury, must be deducted from the total expenditure Rs. 69,774-13-3, leaving Rs. 69,771-13-3 net expenditure.

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the Expenditure in detail on the Dodabetta Cinchona Plantation for the official year 1877-78.

Month.	Establishment.	Nurseries.	Propagation.	Buildings.		Manure.	Barking and Mossing.	Collecting Moss.	Packing Bark.	Fibre or Nar for Mossing Trees.	Drying Bark.
				New.	Repairs.						
	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS.	RS. A. P.
April 1877 ...	150	24 15 0	23	...	100 10 0	...	...	23 10 10	8 7 0	...	...
May „ ...	150	22 13 0	23	...	27 0 0	72 13 6	1 6 6	565 12 0	14 1 0	46	...
June „ ...	150	40 7 0	23	...	8 4 0	186 14 6	96 2 6	512 7 9	...	46	13 8 0
July „ ...	150	22 9 6	23	...	24 8 0	15 2 0	663 11 2	129 5 10	...	...	34 14 0
August „ ...	150	109 4 6	23	...	8 12 0	15 7 0	123 10 0	136 10 9	...	46	10 2 0
September 1877.	150	23 10 0	23	...	...	16 0 6	512 12 9	46 3 6	...	...	21 7 6
October „ ...	150	21 13 0	23	...	168 12 0	14 13 6	243 11 0	222 8 11	23 1 0	...	19 3 6
November „ ...	150	86 6 3	23	...	5 0 0	16 0 6	296 12 6	214 2 9	...	46	22 2 0
December „ ...	150	22 12 0	23	...	117 10 0	15 7 0	80 12 6	163 1 7	17 10 0	46	14 1 0
January 1878...	150	21 4 0	23	206 1 0	...	14 5 6	...	...	15 10 0	...	...
February „ ...	150	32 13 6	22	178 8 6	...	17 3 0	...	...	...	...	...
March „ ...	150	36 1 3	22	643 1 0	...	16 2 6	...	...	34 8 0	...	...
Total ...	1,800	464 13 0	274	1,027 10 6	460 8 0	400 5 6	2,018 14 11	2,013 15 11	113 5 0	230	135 6 0

STATEMENT showing the Expenditure in Detail on the Dodabetta Cinchona Plantation for the Official Year 1877-78—(*Continued*).

Month.	Up-keep.				Contingencies.	Carriage of Bark to Store.	Tools.	Collecting Seeds.	Counting Cinchona Trees.	Total.
	Roads.	Weeding.	Pitting and Planting.	Various.						
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877 ...	16 10 4	465 6 8	56 8 8	70 1 6	...	...	24 0 0	...	...	963 6 0
May „ ...	20 4 6	...	46 1 0	112 1 0	...	...	...	...	...	1,101 4 6
June „ ...	35 1 6	...	26 5 6	136 5 0	...	...	...	...	...	1,274 7 9
July „ ...	20 0 0	...	...	63 10 6	...	...	...	...	...	1,146 13 0
August „ ...	20 0 0	308 7 0	...	263 12 0	...	...	...	...	...	1,215 1 3
September 1877.	20 0 0	105 1 6	5 10 0	110 12 0	1 0 0	...	...	...	...	1,035 9 9
October „ ...	20 0 0	82 12 0	9 0 0	333 14 10	...	...	...	...	...	1,332 9 9
November „ ...	20 0 0	3 6 0	...	97 9 6	3 10 0	...	...	...	...	984 1 6
December „ ...	23 14 6	175 3 8	...	51 14 6	...	34 0 6	384 0 0	...	...	1,319 7 3
January 1878...	20 0 0	309 0 3	...	116 6 6	...	...	...	...	...	875 11 3
February „ ...	20 0 0	559 13 4	...	63 3 0	...	...	...	11 2 0	10 14 6	1,065 9 10
March „ ...	20 0 0	738 11 6	...	63 5 0	0 12 0	...	107 12 0	25 9 0	74 0 0	1,931 14 3
Total ...	255 14 10	2,747 13 11	143 9 2	1,482 15 4	5 6 0	34 0 6	515 12 0	36 11 0	84 14 6	14,246 0 1

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the Expenditure in Detail on the Neddivattam Cinchona Plantation for the Official Year 1877-78.

Month.	Establishment.	Nursery.	Buildings.		Manure.	Barking and Mossing.	Collection of Moss.	Packing Bark.	Fibre or Nar.	Drying Bark.
			New.	Repairs.						
	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877... ...	219	159 15 6	...	...	16 0 3	20 6 0	...	...	...	...
May „	219	358 2 10	...	125 9 6	9 15 0	...	...	...	...	...
June „	219	92 3 6	...	158 15 10	5 10 0	59 6 5	273 0 0	...	...	1 0 0
July „	269	88 3 9	...	71 15 5	8 8 0	184 14 0	41 6 9	1 6 6	11 3 0	30 11 3
August 1877 ...	1,069	112 9 2	140 0 0	3 11 4	...	432 2 2	219 9 6	7 4 6	18 3 0	43 15 6
September 1877..	369	112 11 1	40 0 0	12 0 0	11 9 6	421 13 8	251 9 6	63 10 0	17 9 0	75 9 3
October „ ...	369	92 6 10	...	...	...	294 8 8	433 11 6	180 9 2	14 0 0	141 12 9
November „ ...	369	90 15 9	...	...	....	411 15 8	770 7 6	10 5 6	19 14 0	66 11 6
December „ ...	369	73 11 5	...	...	...	705 9 6	966 1 6	24 4 6	24 5 0	58 6 9
January 1878 ...	369	78 5 4	...	118 0 0	...	402 1 3	938 6 6	43 15 6	30 12 0	38 2 0
February „ ...	368	118 1 7	...	117 14 8	...	...	53 1 2	1 8 0	...	12 4 0
March „ ...	368	159 7 3	240 12 0	2,756 9 10	...	...	...	...	...	0 11 0
Total ...	4,576	1,536 14 0	420 12 0	3,364 12 7	51 10 9	2,932 13 4	3,947 13 5	332 15 8	135 14 0	469 4 0

STATEMENT showing the Expenditure in Detail on the Neddivattam Cinchona Plantation for the Official Year 1877-78—(*Continued*).

Months.	Up-keep.			Contingencies.	Carriage of Bark to Store.	Tools.	Collecting Seeds.	Storage of Bark.	Peons' Clothing.	Propagating House.	Counting Cinchona Trees.	Total.
	Roads.	Weeding.	Various.									
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877... ...	...	484 12 0	275 1 9	...	...	48 12 0	...	...	...	...	...	1,223 15 6
May „	23 14 6	109 0 6	198 0 4	...	75 0 0	...	...	...	...	...	...	1,118 10 8
June „	32 12 0	21 7 0	163 14 3	...	...	...	1	25 4 3	...	...	...	1,054 1 3
July „	21 10 9	...	180 11 1	54 8 0	...	...	...	397 8 8	...	...	...	1,361 11 2
August 1877 ...	20 8 6	...	136 13 0	...	...	...	...	13 8 0	50	...	...	2,267 4 8
September 1877..	19 13 6	12 14 0	117 7 0	...	...	...	...	55 8 0	...	...	...	1,581 2 6
October „ ...	169 14 3	...	136 10 5	...	65 0 0	...	...	5 0 0	...	...	...	1,902 9 1
November „ ...	...	...	94 15 7	3 10 0	47 4 0	...	...	...	...	77 8 9	...	1,962 12 3
December „ ...	...	...	119 9 4	...	30 0 0	...	...	...	...	335 9 10	...	2,706 9 10
January 1878 ...	6 12 0	137 10 6	118 15 6	...	292 8 0	29 0 0	...	...	...	65 7 9	...	2,669 0 4
February „ ...	...	588 10 6	145 2 4	...	136 14 0	...	...	...	...	...	...	1,541 8 3
March „ ...	...	786 15 9	305 12 10	...	11 4 0	...	...	...	...	25 0 0	65 5 0	4,719 13 8
Total ...	295 5 6	2,141 6 3	1,993 1 5	58 2 0	657 14 0	77 12 0	1	496 12 11	50	503 10 4	65 5 0	24,109 3 2

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing the Expenditure in detail on the Pykara Cinchona Plantation for the official year 1877-78.

Month.	Establishment.	Nursery.	Buildings.		Manure.	Barking and Mossing.	Collection of Moss.	Packing Bark.	Drying Bark.
			New.	Repairs.					
	RS.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877	70	107 4 6	...	...	...	...	...	...	...
May „	70	59 12 6	...	4 4 9	9 4 6	...	...	...	...
June „	70	44 1 0	60	54 11 8	...	19 6 6	380 13 10	...	1 0 0
July „	70	39 9 3	40	2 14 9	...	192 15 6	477 7 3	...	31 6 6
August „	70	45 2 9	...	...	235 2 4	375 9 0	477 14 0	...	79 6 9
September 1877	70	50 6 6	...	7 8 0	...	430 2 6	508 6 0	16 5 6	41 6 9
October „	70	28 7 9	...	...	...	300 0 7	431 14 9	40 14 3	34 9 9
November „	70	53 7 6	...	...	...	216 14 9	312 6 4	...	35 13 0
December „	70	65 6 3	...	...	...	109 5 9	187 5 0	4 11 0	37 7 3
January 1878	70	56 7 3	...	...	...	...	...	13 4 3	22 12 6
February „	70	70 12 6	...	...	...	50 11 0	...	0 8 6	3 13 6
March „	70	64 4 9	...	2 3 5	...	...	...	...	...
Total ...	840	685 2 6	100	71 10 7	244 6 10	1,695 1 7	2,776 3 2	75 11 6	287 12 0

STATEMENT showing the Expenditure in detail on the Pykara Cinchona Plantation for the official year 1877-78—(*Continued.*)

Month.	Up-keep.			Carriage of Bark to Store.	Tools.	Collecting Seeds.	Storage of Bark.	Counting Cinchona Trees.	Total.
	Roads.	Weeding.	Various.						
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877	...	170 9 0	7 6 9	...	...	...	...	...	355 4 3
May „	17 4 0	142 11 6	28 8 7	...	...	1 0 0	...	...	332 13 10
June „	18 5 6	201 9 0	42 10 9	...	...	0 8 0	9 4 0	...	902 6 3
July „	25 2 0	...	24 2 6	...	...	...	20 4 0	...	923 13 9
August „	24 1 3	...	42 13 9	...	...	...	...	...	1,350 1 10
September 1877	13 12 9	...	45 14 3	2 6 3	..	...	...	...	1,186 4 6
October „	147 12 6	...	63 0 5	73 3 0	...	...	...	...	1,189 15 0
November „	0 12 9	32 11 6	31 3 11	14 14 0	...	...	...	...	768 3 9
December „	11 6 9	73 9 6	41 5 7	5 5 0	17 13 0	...	...	...	623 11 1
January 1878	29 0 10	554 8 4	92 15 11	87 0 9	...	...	...	...	926 1 10
February „	...	802 9 9	114 4 0	...	...	...	...	...	1,112 11 3
March „	...	475 1 1	78 5 1	...	...	...	0 13 9	10 3 7	700 15 8
Total ...	287 10 4	2,453 5 8	612 11 6	182 13 0	17 13 0	1 8 0	30 5 9	10 3 7	10,372 7 0

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

STATEMENT showing in detail the Expenditure on the Office Establishment of the Government Cinchona Department and general Expenditure on the Plantations for the official year 1877-78.

Month.	Establishment. Office Manager.	Establishment. Peons.	Printing and Binding.	Furnace Bars.	Contingencies.	Carriage of Samples Bark.	Buildings.	Shipping Charges.	Peons' Clothing.
	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877	80 0 0	19	35 0 0	a 519 1 6	...	...	...	...	...
May „	80 0 0	19	...	...	...	...	...	...	...
June „	53 5 4	19	...	...	...	...	...	1,596 4 2	...
July „	80 0 0	19	20 0 0	...	3 4 0	...	...	...	...
August „	80 0 0	19	...	...	...	...	...	...	...
September 1877	80 0 0	19	...	...	...	...	...	...	...
October „	80 0 0	19	...	...	...	3 4 0	b 23 8 0	...	4 8 0
November „	80 0 0	19	...	...	...	...	...	...	...
December „	80 0 0	19	...	...	...	...	...	...	...
January 1878	80 0 0	19	...	...	...	...	...	6,879 12 0	...
February „	80 0 0	18	..	...	...	...	...	1,852 6 0	...
March „	80 0 0	18	96 11 0	...	30 0 0	...	...	6,301 0 3	18 5 9
Total ...	933 5 4	226	151 11 0	519 1 6	33 4 0	3 4 0	23 8 0	16,629 6 5	22 13 9

Explanation of Items.

a These were obtained by Mr. McIvor in 1876, but were only paid for this year.

b Carriage of Tarpaulins from Madras.

STATEMENT showing in detail the Expenditure on the Office Establishment of the Government Cinchona Department and general Expenditure on the Plantations for the official year 1877-78—(*Continued*).

Month.	Packing Bags.	Stationery.	Carriage of Bark to Mettupolliem.	Travelling Allowance.	Service Telegrams.	Counting Cinchona Trees.	Marking Sub-Divisions.	Carriage of Records.	Total.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
April 1877	...	...	...	...	...	...	...	...	653 1 6
May „	...	...	...	...	..	...	...	...	99 0 0
June „	...	...	...	...	...	...	...	...	1,668 9 6
July „	...	...	...	...	...	...	..	...	122 4 0
August „	...	...	...	...	...	...	...	...	99 0 0
September 1877	...	..	...	...	...	...	...	...	99 0 0
October „	1,271 0 0	16 8 0	...	...	...	...	...	...	1,417 12 0
November „	99 5 0	...	300 0 0	...	...	...	...	...	498 5 0
December „	...	...	300 0 0	...	...	...	...	...	399 0 0
January 1878	...	...	200 0 0	...	...	...	...	...	7,178 12 0
February „	...	29 0 0	...	1 8 0	5	5 0 0	...	...	1,990 14 0
March „	..	...	36 0 0	...	..	120 8 0	120 0 0	1 0 0	6,821 9 0
Total ...	1,370 5 0	45 8 0	836 0 0	1 8 0	5	c 125 8 0	120 0 0	1 0 0	21,047 3 0

Explanation of Items.

c Incurred by Captain Walker in connection with his report.

OOTACAMUND,
5th October 1878.

(Signed) R. W. BARLOW,
Commissioner.

No. 163. ORDER THEREON, 15th November 1878, No. 1,828.

Miscellaneous.

THE Government Cinchona Plantations yielded in 1877-78 138,838½ lbs. dry bark which is a larger harvest of bark than had up to that time been taken in any one year. It was thus distributed :—

		lbs.	lbs.
Crown Bark	Natural	32,857½	
	Mossed	24,679½	
	Renewed	12,003½	
	Branch	5,855½	75,395½
Red Bark	Natural	17,076	
	Mossed	25,392	
	Renewed	18,183	60,651
Other Kinds	Yellow	1,845½	
	Grey	677	
	Dust and Mossed ...	239	2,761½
		Total ...	138,808½

Of this crop, 132,951½ lbs. were sent to England, 1,000 lbs. were supplied to the Government of Bombay, and 4,330 lbs. to the Madras Medical Stores. It is observed that no record has been kept of the number of trees that were stripped and mossed, but that information on this point will in future be available. The trees on the plantations having now been numbered and subdivisions formed, some sort of working plan can probably be framed, and the yield in each subdivision be estimated with fair accuracy.

2. The harvest in the previous year was 103,341 lbs., of which 102,384 lbs. having been sent to England were sold* within the official year now reported on for £30,434-12-0. The Commissioner takes no credit for any receipts within the year from the 1877-78 crop, but of the £33,231-12-10† which it fetched, £19,965-10-0 were realized before the 31st March last‡.

* *Vide* G.O., 21st July 1877, No. 2,359.
" " 28th Jan. 1878, No. 145.

† *Vide* G.Os., 29th June, 5th July and 23rd September 1878, Nos. 998, 1,025 and 1,552.

‡ *Vide* G.O., 20th June 1878, No. 928.

3. The prices fetched by the shipments of Crown bark during 1877-78 were still high though below those obtained for the previous year's crop, viz :—

	Highest prices. 1876-77. Crop.		1877-78. Crop.	
Crown.	*s.*	*d.*	*s.*	*d.*
Natural	13	9	8	4
Mossed	15	8	8	5
Renewed	13	5	11	10
Branch	15	7	10	6

Red bark, with the exception of "renewed" red had much declined in value, viz ;—

	Highest prices. 1876-77.		1877-78.	
Red Bark.	*s.*	*d.*	*s.*	*d.*
Natural	11	0	1	9
Renewed	9	2	5	10
Mossed	4	7	2	8

4. In view of so large a harvest of bark, the plantations may be taken to be in a satisfactory condition ; but the Commissioner states that there is still a difficulty in regard to labor, and that this led to "very little manuring" being carried out at

Neddivattum and Pykara. It appears from the expenditure statements that only Rs. 461-4-9 were spent under this head against an estimate of Rs. 700, and that of this amount Rs. 400-5-6 were expended at Dodabetta, while the Neddivattum plantations received 51-10-9, and those at Pykara only Rs. 9-4-6. The favorable results obtained by manuring have been frequently demonstrated and led to the late Acting Commissioner making a larger* provision on this account in the current year's budget. Every effort must be made to utilize this provision to the full extent, for it is above all things necessary that the trees should not be "starved" now that their recuperative powers are so largely taxed by the repeated removal of bark.

*Rs. 1,400.

5. Scarcity of labor appears to have been also the cause of only Rs. 13,025-2-1, out of an allotted sum of Rs. 24,276, being spent on upkeep, and the subject demands serious consideration. It seems probable that the Government rate of wage is too low, and if found to be below that offered by private planters it must be promptly raised. If this is done there should be no difficulty in obtaining coolies at Dodabetta, nor yet at Neddivattum, now that good lines have been built and arrangements made for storing grain against the monsoon.

6. From the Commissioner's remarks in paragraph 6, there would appear to have been a tendency to subordinate the work of cultivation to that of harvesting. This must be checked lest the future of the plantations be sacrificed to present gain.

7. The propagation of young plants appears to have been vigorously prosecuted, and the Government notice with satisfaction that 5,000 were planted out in the Dodabetta plantations. The public took 187,350 plants against 142,000 in 1876-77, whilst the demand for seed rose from 143 ounces to no less than 326 lbs. Cuttings to the number of 170,500 were also sent out of the nurseries. The stimulus afforded to private enterprise by the success of the Government plantations could receive no stronger proof.

8. Adverting to the Commissioner's remarks regarding the results of the small coppicing experiment of May 1871, the Government observe that Captain Walker states in his report† that suckers were left growing when the trees were cut and that it is impossible now to distinguish these from "real coppice shoots from the stool."

† Paragraph 34, page 8.

9. The moss supply and other subjects noticed by the Commissioner are under separate consideration.

(True Extract.)

(Signed) L. A. CAMPBELL,
Under-Secretary to Government.

To the Commissioner of the Nilgiris.

Exd. W. H. French.

Govt. of [1878] 39 Victs.

REVENUE.

To

THE COMMISSIONER OF THE NILGIRIS

Dated November 15th.

Printed 21st.

Read.

G.O., 15th November 1873, No. 1,525.

NOVEMBER.

Nos. 162-163.

Cinchona. Administration. Report.—Review of the report for the year 1877-78, and intimating that — for the year 1877-78, and intimating the question of mass supply and other subjects noticed by the Commissioner are under consideration.

19

Office
4.11.78

My dear Campbell,

Jam Do. regarding the error in the Chinchona report came home in Barlow's absence. Jam desirous that "1" was omitted by the clerk in copying neat extract. The figures in the o.c. are 1433 & this is correct.

Yours very sincerely

Rob[ert] Bruce

Statement of Rainfall at Nedduvattom for the Official Year 1877-78.

Months	Rainfall Inches	Cents	No. of wet days	Remarks.
April 1877	2	38	10	
May "	3	12	12	
June "	41	80	28	
July "	8	70	25	
August "	31	02	29	
September "	14	75	24	
October "	10	52	19	
November "	2	79	5	
December "	1	44	6	
January 1878	"	10	1	
February "	"	"	"	
March "	"	27	1	
Total	116	89	160.	

Commissioner's Office
Ootacamund
5th October 1878

J. W. Bourdillon
Commissioner

Statement of Rainfall at Dodabettah for the Official Year 1877-78.

Months	Rainfall Inches	Rainfall Cents	Days on which rainfall	Remarks.
April 1877	3	73	8	
May —— " ——	6	82	16	
June —— " ——	8	13	21	
July —— " ——	1	07	12	
August —— " ——	3	77	23	
September " ——	11	90	26	
October —— " ——	11	14	27	
November —— " ——	9	14	28	
December —— " ——	4	95	13	
January 1878	"	18	2	
February —— " ——	"	"	"	
March —— " ——	"	50	3	
Total	61	33	169.	

Commrs Office
Ootacamund
5th October 1878

D W Drake
Commissioner

12 3 25

Statement showing the growth of 7 Deciduous trees in the Dodabetta Plantations felled in 1873

No	Height of shoots		Girth in inches	No. of shoots	Remarks
	Feet	inches			
1	14	6	8	3	
2	10	3	6½	4	
3	10	3	6½	4	
4	15	"	7	4	
5	9	6	6½	8	
6	11	3	6½	13	
7	13	1	6	18	

Commissioner's Office
Ootacamund
5th October 1878

W W Morton
Commissioner

13 4 27

Statement showing the Receipts on account of the Govt. Chinchona Plantations for the Year 1877-78

Particulars	Sanctioned Budget Allotment for 1877/78	Actuals for 1877-78	Actuals for 1876-77
Crops.			
Sale proceeds of 1876-77 Crops	150000 " "	34127 " "	105974 4 "
Value of Bark supplied to the Madras Medical Department	" " "	9689 3 8	
Do Bombay Do	" " "	2321 11 9	1904 " "
Rent of Tea Estate	" " "	183 13 11	" " "
Sale proceeds of Plants and seed	3000 " "	2821 2 3	207 14 10
Miscellaneous.			
Sale proceeds of waste	" " "	2264 " "	" " "
Miscellaneous	" " "	" " "	547 6 "
Total Rupees	153000 " "	358751 15 7	110457 7 10

Commissioner's Office
Ootacamund
5th October 1878

W W Morlon
Commissioner

Abstract of Tenders received for the Supply of Stores &c. required for the Public Service in the Office of Works &c. for the Year 1878-79

Description of Stores	Quantity required	Tenders received from	Quantity tendered for	Price per	Amount
Asphalte					
Asphalte in sheets					
Bricks					
Common stocks	4276	Thos. Wright, Hammersmith	4276	£ 7 2 6	£ 30 8 8
Fire bricks	611	"	611	5 6	3 4 6
Malm	4088	"	4088	12 3	6311 4
Portland Cement	700	"	461	4 9	457 3 5
			235	2 4	
Paving Asphalte			6646	13 10	9020 8 9
Paving and Flagging			5738	1 6	7038 2 10
Artificial Stone			365	14 "	" "
Do Yorkshire	15000	"	1892	6 2	756 5 0
Flagging			892	6 "	" "
Kerbing			1401	14 2	" "
Granite Paving & Macadam			836	" "	1353 7 6
Portland Cement	7500	"	16629	6 5	
Pitching	100	"	72	13 9	80 " "
Rubble Masonry	1800	"	303	3 "	453 " 4
Rubbing Stone			39	3 "	" " "
Sanding Asphalte			406	15 1	" " "
Sawing Stone					
Timber			519	1 6	" " "
Oak Timber					
Deal Timber	69400	"	69774	15 3	29630 1 3

Total £

All Contracts are subject to the Conditions and Regulations contained in the Printed Forms of Tender and Specifications

Signature of Tenderer

Date

Witness

Address

Description

31

Statement showing the Expenditure on the Official Year 1877-78.

Month	Establishment	Pensioners	Prisoners	Buildings: New	Buildings: Repairs	Marine	Barracks & Hospitals	Collectorate Offices	Police	Fisheries & Sea Improvements	Bengal Bank	Total
April 1877	150	24 15	23		100 10			23 10 10	8 7			
May "	150	22 13	23		27	72 13 6	1 6 6	5 6 5 12	14 1	46		
June "	150	40 7	23		84	186 14 6	96 2 6	57 2 7 9		46	13 8	
July "	150	22 9 6	23		248	152	66 3 11 2	12 9 5 10			34 14	
Augt "	150	10 9 4 6	23		812	157	123 10	136 10 9		46	10 2	
Sept "	150	23 10	23			16 6	57 2 12 9	46 3 6			21 7 6	
October "	150	21 13	23		168 12	14 13 6	24 3 11	22 5 11	23 1		19 3 6	
November "	150	86 6 3	23		5	16 6	29 6 12 8	21 4 2 9		46	22 2	
December "	150	22 12	23		117 10	157	80 12 6	163 1 7	17 10	46	14 1	
January 1878	150	21 4	23	206 1		14 5 6			15 10			
February "	150	32 13 6	22	178 8 6		17 3						
March "	150	36 13	22	64 3 1		16 2 6			34 8			
Total	1800	464 13	274	1027 10 6	460 8	400 5 6	201 8 14 11	201 3 15 11	113 5	230	135 6	

Commissioners Office
Vizagapatam
5th October 1878

Detail on the Dodabetta Schemes Statistics

Upkeep

Roads	Masonry	Rubble Masonry	Bridges	Contingencies	Cauvery Delta to close	Tools	Collectorate	Secretariat Establishment	Total
16 10 4	46 5 6 8	56 8 8	70 1 6			24			963 6
20 4 6		46 1	112 1						1101 4 6
35 1 6		26 5 6	136 5						1274 7 9
20			63 10 6						1146 13
20	308 7		263 12						1215 1 3
20	105 1 6	5 10	110 12	1					1035 9 9
20	82 12	9	333 14 10						1332 9 9
20	3 6		97 9 6	3 10					982 1 6
23 14 6	175 3 8		57 14 6		34 6	38 4			1319 7 3
20	309 3		116 6 6						875 11 3
20	559 13 4		63 3				11 2	104 8	1065 9 10
20	738 11 6		63 5	12		107 12	25 9	74	1931 14 3
255 14 10	2747 13 11	163 9 2	1482 15 4	5 6	34 6	575 12	36 11	84 14 6	14248 1

J. W. Barlow
Commissioner

Statement showing the Expenditure for Relief on the Nedadwattam Shenchoora Plantation

For the Official Year 1877-78.

Month	Establishment	Wages	Buildings: Rent	Buildings: Repairs	Advance	Banking & Drossing	Collection of Rents	Savings Bank	Fines or Fees	Drawing Bank	Rations	Weeding	Various	Contingencies	Carriage of Rice to Store	Tools	Collecting Coir	Storage at Bank	Rewards Clothing	Prosecuting Thefts	Commissioners Clerk's Fees	Total
	6	6	6	6	6	6	6	6	6	6	6	6	6	4	5	4	4	5	3	4	4	4
April 1877	219	159 15 6			16 3	20 6						482 12	275 1 9			48 12						1223 15 6
May "	219	358 2 10		125 9 6	9 15							231 4 6	109 6	198 4		75						1118 10 8
June "	219	92 3 6		158 15 10	5 10	59 6 5	273			1		32 12	21 7	163 14 3			1	254 3				1054 1 3
July "	269	88 3 9		71 15 5	8 8	184 14	41 6 9	1 6 6	11 3	30 11 3		29 10 9		180 11 1	54 8			347 8 8				1361 11 2
August "	1069	112 9 2	140	3 11 4		432 2 2	219 9 6	7 4 6	18 3	43 15 6		20 8 6		136 13				138	58			2267 4 8
September "	369	112 11 1	40	12	11 9 6	421 13 8	251 9 6	63 10	17 9	75 9 3		19 13 6	12 14	117 7				55 8				1581 2 6
October "	369	92 6 10				294 8 8	433 11	180 9 2	11	141 12 9		16 9 3		136 10 5		65		5				1902 9 1
November "	369	90 15 9				411 15 8	770 7 6	10 5 6	19 14	66 11 6								77 8 9				1962 12 3
December "	369	73 11 5				705 9 6	966 1 6	24 4 6	34 5	58 6 9				94 15 7	3 10	47 4			335 9 10			2706 9 10
January 1878	369	78 8 4		118		402 1 3	938 6 6	43 15 6	30 12	38 2		6 12	137 10 6	118 15 6		29 2 8			65 7 9			2669 4
February "	368	118 1 7		117 14 8		53 1 2	1 8			12 4				58 10 6	145 2 4	136 14						1541 8 3
March "	368	159 7 3	240 12	275 6 9 10						11				78 15 9	305 12 10	114			25	65 5	47 19 8	
Total	4576	1536 14	420 12	336 4 12 7	51 10 9	2432 13 4	3947 13 5	332 15 8	185 14	469 4		295 5 6	214 16 3	1993 5	58 2	657 14	77 12	1	498 12 11	50	523 10 4	65 5	2410 9 3 2

Commissioners Office
Colaccamund
5th October 1878

Commissioner

Statement showing the Expenditure in detail on the Pykara Shinchona Plantation for the Official Year 1877-78

Month	Establishment	Nursery	Buildings New	Buildings Repairs	Steamer	Buildings & Processing	Collection & Store	Packing Room	Drying Barbecue	Roads	Up keep Weeding	Pruning	Cinchona & Bark to Store	Soils	Collection Roads	Nursery & Bark	Cinchona Clean Shade Trees	Total
15th April 1877	70	107	4	6	6	6	6	6	8	X	170	7	6	5	6	6	6	355 4 3
April 1877	70	107	4	6	6	6	6	6	8	X	170	7	6	5	6	6	6	355 4 3
May "	70	59	6	4	4	9	4	6			17	4	142	11	6	1		332 13 10
June "	70	44	1	60	54	11	8		19	6	6	380	13	10	1	18	5	6
July "	70	39	9	3	40	2	14	9	192	15	6	477	7	3	31	6	6	25
Aug. "	70	45	2	9				235	2	4	375	9	477	14	79	6	9	24
Sept. "	70	50	6	6		7	8			430	2	6	508	6	16	5	6	41
Octr. "	70	28	7	9						300	"	7	431	14	9	40	14	3
Novr. "	70	53	7	6						216	14	9	312	6	4			35
Decr. "	70	65	6	3						109	5	9	187	5	4	11		37
January 1878	70	56	7	3											13	4	3	22
Feby. "	70	70	12	6						50	11							8
March "	70	64	4	9		2	3	5										
Total	840	685	26	100		71	10	7	244	6	10	1695	1	7	2776	3	2	75
											287	10	4	2453	5	8	612	11

Commissioners Office
Ootacamund
5th October 1878

Commissioner

Statement showing in detail the expenditure on the Office Establishment of the Govt Chinchona Department & general expenditure on the Plantations for the Official

Year 1877/78

Month	Establishment Officers	Establishment Peons	Printing & Stationery	Furniture & Bars	Contingencies	Carriage & Coolie Hire	Build'gs	Medicines & Chemicals	Peons Clothing	Coolies & Labourers	Carriage of Mails & Postage Stamps	Steamer & Allowance	Service Telegrams	Commissariat & Coolie Hire	Miscellaneous & Sub Departments	Carriage of Records	Total
April 1877	80	19	35	519 1 6 [a]													653 1 6
May "	80	19															99 - -
June "	53 5 4	19						1546 4 2									1668 9 6
July "	80	19	20		3 4												1224 - -
Augt "	80	19															99 - -
September "	80	19															99 - -
October "	80	19				2 [b]			4 8	1271	16 8						1417 12 -
November "	80	19			34	23 8				995		300					4985 -
December "	80	19										300					399 - -
January 1878	80	19						6879 12				200					7178 12 -
February "	80	18						1852 6		29			18	5	5		1990 14 -
March "	80	18	96 11		30			6301 3	18 5 9			36		120 8	120	1	6821 9 -
Total	933 5 4	226	157 11	519 1 6	33 4	3 4	23 8	16624 6 5	22 13 9	1370 5	45 8	836	18	5	125 8 [c]	120	1 210473 -

Commissioner's Office
Calacaumund
5th October 1878

a Fees were obtained by Govt Chinchona Plantation of 1876 but were only paid for this year
b Carriage of Instruments from Madras
c Incurred by Capt. Walker in connection with his report

W Darlan
Commissioner

exceptionally wet months at Nedlivaltam the fall on 28 days of the former month being 41.80 inches and for 29 days of the latter 31.02. In the months of December and February very high winds prevailed at Nedlivaltam destroying the foliage of the trees, and as during the subsequent months little or no rain fell to enable the trees to renew their leaves, the general appearance of the Plantations at the end of the year was not satisfactory. The year was however very favorable for the collection of crops and a larger quantity of bark was taken than in previous years. Statements of rainfall at Nedlivaltam and Dodabetta are appended.

3 Receipts and Expenditure. Statements are enclosed showing the expenditure in detail on each of the Plantations.

Receipts. The Receipts amounted to Rs 358751-15-7 against 110457-7-10 in the previous year.

Expenditure. The expenditure amounted to Rs 69771-13-3 against Rs 59630-1-3 in 1876/77. The Net profit of the year is therefore Rs 288980-2-4.

4. Permanent Plantations &c. Number of trees. The number of plants on permanent plantation had been considered to be about 1190458. During the year Government deputed Captain Walker to make an enumeration of the trees on all the Government plantations. The result of it shows that there are 569031 trees now exist viz:-

At Dodabetta	226936
" Nedlivaltam	208780
" Pykara	133315
Total	569031, which

are thus classified:-

Red Barks	260837
Crown Barks	305432
Yellow Barks	552
Grey Barks	1874
Other species	336
Total	569031

In connection with this subject I may remark that Captain Walker has

divided

has divided each plantation into sub-
-divisions, showing the acreage of each
years planting and the number of trees
existing on each. Revised plans of the
plantations with the above particulars
are now being prepared in the Survey
Office.

6th. Growth of trees. The average height
of the oldest (1862) Succubra plant
at Neddivattam is about 37½ feet with
a girth of 28 inches. The Officinalis trees
in the 1863 planting at Dodabetta
have attained an average height
of 28 feet with a girth of 22 inches

5. Propagation - 1st Propagation. The
number of cuttings propagated during
the year at the propagating houses
attached to the Dodabetta Plantations
was 14,876, viz 2806 of C. Calysensis
12070 of C. Lancefolia; making a total
of 41,184 in all up to the close of
the year under Report. Of this
number 5000 were planted out in
the Dodabetta Plantations, 400 sent

to Ceylon and 200 supplied to the Neddi-
-vattam plantations for the purpose of
obtaining cuttings for stocking the new
Propagating house there which was however
not completed during the year owing
to the impossibility of conveying timber
to Neddivattam on account of the bad
state of the roads. It was completed
in the early part of this year and stocked
with cuttings of the rarer species of Chin-
-chona

6th. Nurseries. The number of plants
distributed to the public during the year
was 187,350 against 142,000 in the previous
year. The number of plants propagated
however was not equal to the demand
and the then Acting Commissioner
proposed to extend the Nurseries at
Neddivattam vide G O 11th June 1877 No
1946, but Government in their Order
dated 14th August 1877 No 2500 refused to
sanction such a step, deeming it more
desirable that the public should
utilize

utilize the large quantities of seed which are available at the Plantations The quantity of seed delivered to the public during the year was 326 lbs! against 143 oz in the previous year; 17,500 cuttings or shoots were also supplied to the public. It will thus be seen that the public have taken up Chinchona cultivation with some spirit, which cannot but be viewed with satisfaction by Government

6. Upkeep - (a) weeding. The whole of the Plantations were as usual thoroughly weeded during the year. and the weeds buried between the trees. At Neddivattam the weeds were unusually heavy owing to the whole of the labor available having been engaged during the rains in the collection of crops. The Dodabetta Plantations received two weedings during the year.

(b) Pruning. As stated in para 114 of

IX

of my predecessor's letter dated 31st December 1877 No 171 recorded in G.O. 20th February 1878 No 274, no account of the number of trees pruned was kept. The information will be available for the current year The supply of moss is becoming a source of anxiety as there appears a likelihood of its running short. The question of reserving certain sholahs for the supply of moss is under the consideration of Government In the course of years when the new Chinchona Plantations lately opened out near the Government Estates, begin to yield bark the demand for moss will be very great unless coppicing is more resorted to than hitherto; but I am nevertheless opposed to the levy of any seignorage.

(c) Manure. Very little manuring was carried on at the Neddivattam and Pykara Plantations from insufficiency of labor. 17,000 trees were manured at Dodabetta with cattle manure. The effect of the application of this manure during

during the previous year was attended with very good results, the trees having made very fair growth during the year under report. More attention is now being given than previously

7. Crops. — (a) Bark. The following statement gives the outturn of bark in detail

Dodabetta

Natural Crown Bark	1747 8/2	lbs
Mossed do	10066	
Renewed do	5401 1/2	
Branch Bark	5855 1/2	
Total	38801 1/2	

Neddiwattam

Natural Crown Bark	9400	
Mossed Do	9609 1/2	
Renewed Do	4962	
Natural Yellow do	1845 1/2	
Do Gray	150	
Do Red	11748	
Mossed do	16407	
Renewed do	14090	
Dust	58	
Mixed	181	
Total	68511	

Pykara

Natural Crown Bark	5979	lbs
Mossed do	4944	"
Renewed do	1640	"
Natural Red Bark	5328	"
Mossed do	8985	"
Renewed do	4093	"
Grey bark	527	"
Total	31496	lbs

Grand Total 138 808 1/2 "

The Crop was distributed thus:—

To The Madras Medical Dept	4334	lbs
Do Bombay do	1000	"
Shipped to England	132951/2	"
In store	527	"
Total	138 808 1/2	lbs

I have omitted to include the 100 lbs of green bark supplied to Mr Money the cost of which the Government have ordered — vide their order No 1164 dated 25th July 1878 — should not be recovered from that Gentleman. The bark if dried would have given about

31 pounds, which if added to the
above makes the outturn 138 & 38½ lbs
The experiment of drying a small
quantity of bark at Coimbatore will
be carried out in a short time.

b/Sea. The Sea Garden attached to Dodabetta
Plantations was leased to Major Jennings
for Rs 300/- annum. That Gentleman
now wishes to cancel his lease. I will address
Government on the subject hereafter

8. Buildings

a. New Works. The Old Police lines at
Neddivattum were demolished and in their
stead 31. Substantial Cooly huts were erected.
They are built with burnt bricks and
roofed with corrugated Iron. A line for
Coolies was also erected at Dodabetta. The
construction of a new Ragi store at
Neddivattam was sanctioned by Govern
=ment in their Order dated 12th February
1878 No 209. The work was at once put
in hand and completed a few months
ago.

b/ Repairs. The drying shed at
Neddivattum was temporarily repaired
for drying the crops of one season
only viz: 1878/79 as the Government
in their order dated 18th January 1878
No

Nos declined for the present to sanction
the construction of a New drying shed
and store. The usual annual repairs
to the permanent Buildings of the
Plantations was carried out.

9. Experiments. The 100 Experimental
Succumbra trees at Neddivattam
referred to in para 8 of G C dated
20th February 1878 No 274 and which
were left unbarked during the previous
year yielded during the year under
report 3200 lbs of dry bark or an
average of 3.2 lbs per tree. These trees
have been barked two times and still
show no outward sign of decay. The 58
trees coppiced in May 1873 now average
17 feet high with a girth of 19½ inches
A row of trees alongside of these
which were previously unbarked yielded
165 pounds of dry bark under the ordinary
process. Of the 57 trees coppiced in
October 1873, 36 remain alive and
averaged at the end of the year 12 feet
by 6 inches. The trees coppiced in May
1871 have made fair growth but in
height.

height and girth do not equal a seedling of the same age.

Of the 50 C. officinalis trees coppiced at Dodabetta in June 1873 43 remain alive and have sprung very freely from the stools. Some of the stools have 18 to 20 shoots in them. I enclose a statement showing the growth of 4 of the largest of the remaining stools. With the exception of a few that were barked to obtain samples of coppiced bark for analysis, the shoots remain untouched, and pending the orders of Government on Captain Walker's report in which this experiment is reported to be the most successful coppicing experiment in the Plantations I have directed the Head Overseer in charge not to interfere with this plot beyond weeding it. This is the experiment alluded to in para 9 of G. O. 20 February 1878 N. 274. Samples of every description of

of bark of each variety from each plantation have been forwarded to Government for transmission to England for analysis. I think it is a pity that the coppicing experiments undertaken by the late Mr. Mc Ivor were not carried out on a larger scale over an extended area; trees coppiced singly or by two and three and left under the shade and drip of others do not do well

10. Labor. The labor difficulty becomes yearly a source of great trouble. At the beginning of the year the supply of labor was sufficient for all requirements but sickness breaking out a large number died and others ~~bolted~~ through fear. During the wet months the roads to the Naddiwattam and Pykara Plantations became impassable for cart traffic, so that grain could not be got

out

out for supply to the labourers em=
=ployed in those Estates which are
situated 22 miles from Ootacammund
at that season the only and nearest
market for grain, the supply at
Goodaloor having failed. An experiment
was tried to introduce labourers from
Combatore and Cattegal, but this
also failed owing to the climate and the
work on the Plantations being unpalatable
to the men who were of the weaver
caste & who all absconded.

11. At Dodabetta also the labor diffi=
=culty is increasing owing to the low
rate of wages usually given by us (4½
annas) compared with what coolies can
earn for lighter work at Ootacammund
close by where 6 annas per diem is
easily procurable.

12. Mr. Rowlson the Assistant Superintendt
of Neddiwattam has suggested an
increase of pay to the labourers —

and

and when budgetting for next year I shall
address Government on the subject
The erection of the Paggi Store at
Neddiwattam and the storage of larger
supplies of grain will, it is thought,
remedy the labor difficulty a little.

13. General Remarks. The Plantations
are still without a Superintendent
and continue to be under the control
and responsibility of the Commissioner
By G. O dated 15th January 1878 No 42
Capt C. Walker was deputed to make
a census of the trees in the Government
Plantations and to report on the present
past and future prospects of the same
and that Officer has submitted a
very lengthy one comprising all details
connected with the history of Cinchona
In forwarding his report to Government
with my letter No 133 of 16th July 1878
I remarked that "it will be carefully
considered by the Cinchona Committee

word

now sitting and I abstain therefore from any remarks at present. The question of a special Officer however to be in charge of the Plantations for some time to come may possibly be taken up by Government at once. I beg therefore to submit that I very strongly support the proposal that some duly qualified person may be appointed as recommended."

The Report and opinion of the Ethnology Committee on this point has been some time in the press and will be before Government in a day or two.

14. Subordinates. Mr. Rowlow Assistant Superintendent at Neddivattam has given every satisfaction during the year and the condition in which he has kept his plantation is highly creditable to him considering the difficulty of labor supply.

J. Narrainsawmy Naidoo the Head Overseer at Dodabetta has also done

done very well. His pay has been increased to 150 Rs per month.

Mr Villier the Manager appointed by Mr Webster in June 1877 has worked very well and given me satisfaction

I have the honor to be
Sir
Your most Obdt Servt

H Morris
Commissioner

Revenue Department.

No 1828

Proceedings of the Madras Government
Under date the 15th November 78

Read the following
letter from the Commissioner
Nilgiris dated 5 October 78
No 208, forwarding the
Administration Report
of the Govt Chinchona
Plantations for the year
1877-78-

The Govt Chinchona
Plantations yielded in
1877-78. 138,838½ lbs dry bark
which is a larger harvest
of bark than had up to
that time been taken
in

Rec'd 1878 Department
No 4388
The Commissioner
of Nilgiris
Dated 5th Oct 1878
Read 8th Do
Entered
Copied 1888-19 Nov
Compared
Sent
Forwarded
Recorded
Calculations
Entered 22 Nov 1878

No 162.

in any one year. It was thus distributed

		lbs
Crown bark	natural	32857½
	moxed	24679½
	renewd	12003½
	branch	5855½
	Total	75395½
Red bark	natural	17076
	moxed	25392
	Renewed	18183
	Total	60651
Other kinds	Yellow	1845½
	Grey	677
	dwarf moxed	239
	Total	2761½
Grand Total		138,808½

of this crop 132,951½ lbs were sent to England, 1000 lbs were supplied to the Govt of Bombay and 4330 lbs to the Madras Medical Stores. It is observed that no record has been kept of the number of trees that were stripped & moxed but that information on this

this point will in future be available. The trees on the plantations having now been numbered and subdivisions formed some sort of working plan can probably be framed and the yield in each subdivision be estimated with fair accuracy.

2. The harvest in the previous year was 102,341 lbs of which 102,384 lbs having been sent to England were sold within the official year now reported on for £30434-12-0. The Commissioner takes no credit for any receipts within the year from the 77/78 crop but of the

† Vide G.O. 21 July 1877 No 2359
28 January 1878 No 145.

† £ 33,231-12-10 which it fetched £ 19965 .. 10 .. 0 were realized before the 31st March last.

3. The prices fetched by the shipments of crown bark during 1877-78 were still high though below those obtained for the previous years crop - viz

highest prices	76-77 crop	77-78 crop
crown	s. d	s. d
natural	13 .. 9	8 .. 4
mossed	15 .. 8	8 .. 5
Renewed	13 .. 5	11 .. 10
branch	15 .. 7	10 .. 6

Red bark, with the exception of "renewed" red had much declined in value - viz

highest prices	Red bark 76-77	1877-78
	s. d	s. d
natural	11 .. 0	1 .. 9
renewed	9 .. 2	5 .. 10
mossed	4 .. 7	2 .. 8

4. In view of so large a harvest of bark, the plantations

† Vide ffs 29 June, 5 July Y 23 Sept 78 Nos 998, 1025 Y 1532

" Vide G.O. 20 June 1878 No 928

plantations may be taken to be in a satisfactory condition but the Commr. states there is still a difficulty in regard to labor and that this led to "very little manuring" being carried on at Naddivattum & Pykara. It appears from the expenditure statements that only Rs 461 .. 4 .. 9 were spent under this head against an estimate of Rs 700 and that of this amount rupees 400 5-6 were expended at Dodabetta only while the Naddivattum plantations received 51 .. 10 .. 9. & the Pykara plantations only

only Rs 9.4.6. The favorable results obtained by manuring have been frequently demonstrated and led to the late Ag Commissioner making a larger provision Rs 1400 in the current year's budget on this account every effort must be made to utilize this provision to the full extent for it is above all things necessary that the trees should not be "starved" now that their recuperative powers are so largely taxed by repeated removal of their bark.

5. Scarcity of labor appears to have been also the

the cause of only Rs. 13025.2.1 out of an allotted sum of Rs 24.276 being spent on upkeep and the subject demands serious consideration. It seems probable that the Govt. rate of wages is too low and if found to be below that offered by private planters it must be promptly raised. If this is done there should be no difficulty in obtaining coolies at Dodabetta nor yet at Keddivattum now that good lines have been built and arrangements made for storing grain against the monsoon.

Bom

6. From the Commissioners remarks in para 6 there would appear to have been a tendency to subordinate the work of cultivation to that of harvesting. This must be checked lest the future of the plantations be sacrificed to present gain.

7. The propagation of young plants appears to have been vigorously prosecuted and the Govt notice with satisfaction that 5000 were planted out in the Dodabetta plantations. The Public took 187,850 plants against 142,000 in 1876-77 whilst the demand for seed rose from 143 ounces to no less than 326 lbs. Cuttings to the number of 170,500 were also sent out of the nurseries. The stimulus afforded to private enterprise by the success of the Govt plantations could receive no stronger proof

8. Adverting to the Commissioners remarks regarding the results of the small coffee experiment of May 1877 the Govt observe that Capt. Walker states in his report that suckers were left growing

⊗ Mr Barlow says 43 but last year Mr Webster returned the Amount as 143 (vide clause 6 in page 3 of 20th Feby 78 No 274) the former has been written to & the correct figure will be entered when known

+ Para 34 page 8.

growing when the
trees were cut & that
it is impossible now
to distinguish these
from "real coppiced
shoots from the stool"?
9. The main supply
and other subjects
noticed by the Com-
missioner are under
separate consideration

7 The Commissioners of the Nilgiris
2 Collectors of the Presidency of Bengal
dr. 22 Nov

50
4

G.O.

Administration Reports
on the Govt Cinchona
Plantations for 1877-78