REVENUE DEPARTMENT.

Paper taken out of the Records from the charge of the Record-keeper.

Regular / Miscellaneous No. of 189 .

For what Current		To whom given.	When taken out.
No.	Year.		

Revenue (1897) Department.

PRESS SERIES.

G.O., No. 914-914 A

Dated 5th November

[Despatch Abstract.]

Recording with remarks, B.P. approving the suggestion of the Conservator of Forests, S.C. for publishing in the forest sheet of the Malabar Dt. Gazette a report from M.R.Ry. Gurunathan Pillai on Cearà rubber trees.

BACK PAPERS.

ANTECEDENT PAPERS.

No.	Date.	Subject.	Disposal.

Revenue (189)) Department.

CURRENT No. 1801

GOVERNMENT OF MADRAS
21 OCT 97
REVENUE DEPARTMENT

The Hon: Mr Rose C.S.I. *From* *Board of Revenue*
Land Rev (Forests)

Pl.
Order ~~misc~~

Recorded

No. 421.

2.

Dated 29. 9. 97

Received 21- 10 -97

Registered [illegible] 97

Enclosures

Spare copies.

SUBJECT.

Approving the suggestion of the Conservr of Forests, I. Circle, for publishing in the Forest Sheet of the Malabar District Gazette a report from M. R. Ry. Gurunatha Pillai while acting as District Forest-officer, South Malabar, on Ceara rubber trees, forwarding a copy of these Progs to the Inspector-General of Forests, and requesting Govt to furnish c[illegible]

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

REVENUE DEPARTMENT.

1897.

Board of Revenue

(Land Revenue),

MADRAS.

Printed October th.

Proceedings, Forest No. 421, 29th September 1897.

SEPTEMBER.

Approving the suggestion of the Conservator of Forests, Southern Circle, for publishing in the forest sheet of the *Malabar District Gazette* a report from M.R.Ry. Gurunatha Pillai while acting as District Forest-officer, South Malabar, on Ceara rubber trees; forwarding a copy of these Proceedings to the Inspector-General of Forests, and requesting Government to furnish certain other officers with a copy.

PROCEEDINGS OF THE BOARD OF REVENUE
(LAND REVENUE).

READ—again Proceedings of the Board of Revenue (Land Revenue), Forest Mis. No. 249, dated 18th February 1896 :—

Read—the following letter from A. F. PINHEY, Esq., I.C.S., Acting Sub-Collector in charge, Malabar District, to the Secretary to the Commissioners of Land Revenue (through the Conservator of Forests, Southern Circle), dated Camp, Manantoddy, 16th January 1896, No. 12-For. :—

With reference to paragraph 2 of Board's Proceedings, Forest Mis. No. 1733, dated 15th November 1895, I have the honour to state that my District Forest-officers are of opinion that in this district the Ceara rubber trees will not yield a product of commercial value.

2. The District Forest-officer, North Malabar, omitted to weigh his specimens before despatch to England but calculates that the weight would be about 1½ lbs. in each case. The samples were taken from 21 and 40 trees respectively so that the revenue per tree is only about one penny or a half penny. The cost of collection of sample No. I was Rs. 1–14–0 and that of sample No. II Rs. 1–12–0. The average cost of collection might however show a decrease when a larger quantity is collected; but, presuming that Mr. Marshall's estimate of the weight of his specimens is correct, I do not think that it will pay to grow the tree in North Malabar.

3. In South Malabar the trees grow and seed well but do not yield sap in sufficient quantity to pay the cost of raising, maintaining and tapping them and of collecting and curing the rubber.

Endorsement by E. D. M. HOOPER, Esq., Acting Conservator of Forests, Southern Circle, dated Coimbatore, 6th February 1896, Cur. No. 1780.

Forwarded.

Resolution—Forest Mis. No. 249, dated 18th February 1896.

Recorded.

2. The Conservator is requested to look into the matter when he next visits Malabar.

3. If the tree has been grown to any extent by planters, the valuation should be published in the District Gazette.

(True Copy and Extract.)

(Signed) L. M. WYNCH,
Secretary.

To the Collector of Malabar.

Copy to the Conservator of Forests, Southern Circle.

READ—the following letter from E. D. M. HOOPER, Esq., Acting Conservator of Forests, Southern Circle, to the Secretary to the Commissioners of Land Revenue, dated Coimbatore, 11th September 1897, Dis. No. 170 :—

I have the honour to submit, as desired in Proceedings, Forest Mis. No. 249, dated 18th February 1896, a report upon Ceara rubber in South Malabar by Extra Assistant Conservator Mr. Gurunatha Pillai and a separate return from North Malabar of the result of tapping the trees by Mr. Tireman, Assistant Conservator of Forests.

2. I would suggest the report of Mr. Gurunatha Pillai be published in the forest sheet of the Malabar district, and copies be sent to the Inspector-General of Forests, the Reporter on Economic Products, the Superintendent, Calcutta Garden, and "Indian Forester".

READ—the following letter from M.R Ry. V. S. GURUNATHA PILLAI, Acting District Forest-officer, South Malabar, to the Collector of Malabar, dated Nilambúr, 6th February 1897, Dis. No. 47 :—

[*Reference.*—Your endorsement, Forest No. 397, dated 10th December 1896, on copy of letter from the Conservator of Forests calling for a report on the results of experiments regarding the tapping of Ceara rubber trees.]

I beg to append a report on Ceara rubber called for in the above and to forward herewith (sent separately) the 24 lb. of rubber collected.

ENCLOSURE No. 1.

Report on Ceara Rubber.—In January 1895 one hundred Ceara rubber trees were tapped in Iravallikava both morning and evening, each tree was tapped six times, *i.e.*, twice a day for three days and 10 lb. of rubber was collected which was valued at 1 shilling 6 pence to 1–9 per lb. in England.

In the latter end of December 1896, 309 trees were tapped and 24 lb. of rubber collected; the largest tree tapped, *i.e.*, 3 feet 9 inches in girth gave 8 oz. of solid rubber and the smallest, *i.e.*, 3½ inches in girth gave ⅛ of an oz.; on an average 1 oz. per tree was collected.

Method of Tapping.—A few trees were tapped by making incisions on the trunk of various shapes and little cups made from leaves were pinned underneath to receive the milk, but it was found that no milk could be collected in this way. The milk trickling down the stem from the incisions was after three days pulled off in long strips which gave a few grains of rubber per tree, but the rubber was of good quality, *i.e.*, clean and very elastic and free from the disagreeable odour.

The other trees were tapped as follows: the large roots near the surface were laid bare and incisions 1½ to 1 inch long and ½ an inch apart were made on the exposed roots with a bill-hook and the milk collected in little pits dug in the ground under the roots to receive the milk. The trees were tapped twice a day for three days, *i.e.*, between 6 to 10 A.M. in the morning and between 4 and 5 P.M. in the evening and on the next morning the milk was found to be co-agulated in hard tongues. These were removed and the tree tapped again as before.

It was noticed that the trees bled more freely in the early morning than late in the day; *i.e.*, a tree tapped at 6 A.M. would bleed for 10 to 15 minutes, while those tapped later would only bleed for 5 or 6 minutes, as the heat caused the milk to set much quicker and clog the milk ducts. Again trees growing on moist alluvial soil bled more freely than those growing on dry soil; a small sized tree with a girth of 21 inches standing on good moist soil and little distant from the surrounding teak gave 4¼ oz. of rubber, while a tree growing on dry soil and surrounded by teak though 37 inches in girth gave only ¾ oz. of rubber. Particular notice was taken of the trees tapped in January 1895, the incision made then were completely healed and those that bled well then bled freely even this year. From this it is plain that soil and surroundings have a good deal to do with rubber-producing quantities of the Ceara.

In March and April 1896 attempts were made to tap but with little success, the trees bled but little; the weather being too dry and hot and the trees leafless; the best season to tap is between December and February.

From the experiment tried it has been noticed that trees planted 20 yards apart, *i.e.*, 100 trees per acre (the soil being favourable, *i.e.*, deep moist alluvial soil) will produce on an average 4 oz. of solid rubber per tree per annum when 3 feet in girth in about 18 years.

Endorsement by G. W. DANCE, Esq., Acting Collector of Malabar, dated 17th February 1897, C. No. 119-For.

Forwarded to the Conservator of Forests, Southern Circle, with reference to his letter, dated 8th December 1896, Ref. on Cur. No. 460.

READ—also the following letter from H. TIREMAN, Esq., District Forest-officer, North Malabar, to the Conservator of Forests, Southern Circle (through the Collector of Malabar), dated Manantoddy, 29th August 1897, C. No. 694-F.

[*Reference.*—This office Forest No. 1243, dated 26th March 1897.]

Twenty-three Ceara rubber trees were tapped at the end of May this year. The average girth of these trees was 21 inches. The yield was 8 oz. of rubber. These trees were tapped three times on three consecutive days. They had never been tapped before. In July, during a break in the rains, 67 trees, all of which had been tapped last September, were again tapped once. Their average girth was 27 inches and the yield was 20 oz. I will do some further tapping after the rains are over. I do not, however, think that the Ceara rubber is of any use as a rubber producer, compared with Ficus Elastica and Hevea Braziliensis.

Endorsement by the Collector of Malabar, dated 1st September 1897, Cur. No. 694-For.

Forwarded.

RESOLUTION—Forest No. 421, dated 29th September 1897.

In its order, Mis. No. 4346, dated 1st November 1895, Government communicated a report on the specimens of Ceara rubber sent for valuation from the Malabar district to the Director, Royal Gardens at Kew. The Board then requested the Collector to report how far the valuation made in England indicated that the trees could be grown for commercial purposes. The Collector's report showed that the trees in his district could not be expected to yield a product of commercial value; the cost of raising the tree, and of tapping and curing the rubber was said to be prohibitive while the trees themselves did not yield sap in sufficient quantities.

2. This report was recorded, but the Conservator was requested to look into the matter when he next visited the district. It was also suggested that the valuation made in England should be published in the District Gazette if the tree had been grown to any extent by planters.

3. With his letter read above, the Conservator forwards a report from M.R.Ry. Gurunatha Pillai while acting as District Forest-officer, South Malabar, and another from Mr. Tireman, District Forest-officer of the Northern division, and suggests that the report from the former officer may be published in the forest sheet of the District Gazette. It is also urged that copies of the report may be forwarded to the marginally-noted officers.

The Inspector-General of Forests.
The Reporter on Economic Products.
The Superintendent, Calcutta Garden.
The Editor, "Indian Forester."

4. The Board approves of the Conservator's suggestions. A copy of these Proceedings will be forwarded to the Inspector-General of Forests, and the Government will be requested to furnish the other officers named above with a copy.

(True Copies and Extract.)

Secretary.

To the Conservator of Forests, Southern Circle.
" Collector of Malabar.
" Secretary to Government, Revenue Department.
Copy to the Settlement Branch.
" " Inspector-General of Forests.

Exd. Md. Pahilvan.

Read G.O. 9104 of 97

Fwdt-No. 203

P.S. Order No. 914 dy 5th Nov: 1897.

Recorded

2. The experiment doesn't seem very encouraging but the matter should be kept in mind & if otherwise conditions are altered the experiment may be repeated.

The Hon: the Vice C.J.

(Please see note overleaf)

3. The report called for in para 4 of G.O. No 766 Rev: dy 7th Sept 1897 is awaited. Both superseded

4. As requested by the Board copies of its Proc. will be forwarded for the information of the Reporter on Economic Products, to the Supt, Calcutta Garden and to the Editor of the Indian Forester. A copy of this present Proc. will also be submitted for the information of the Govt of India with reference to para 6 of their Secretary's letter No. 798 F/174-4 dy 16th Aug 1897

Issd 5/11/97

Add para regarding the Board to keep the matter in mind, & consider whether the cultivation can be improved. Para added A 4/11/97

3/11/97

To the Board of Rev: & Ag.
.. Reporter on Economic Products to the Govt of India
.. Supt. Royal Botanic Gardens, Calcutta
.. Editor of the Indian Forester

Issd. 17-11-97

Issd. 17-11-97

Ewdt No. 914 A.

Copy to the Govt of India Rev: & Agri. Dept with copy of Proc. No. 766 Rev: dy 7.IX.97

C. 1/11/97.
R. 3/11/97.

Note

In para 6 of its review on the last admn. report, the Govt of India desired that in view of the steady increase in the demand for rubber, the question of producing natural rubber producing forests should not be lost sight of and the Board was in para 4 of G.O. No 766 Rev dy 7th Sept 1897 asked to report on the point in consultation with the Collector of the Nilgiris and the Conservators of the Southern and Central Circles. The present report is not submitted with reference to the above requisition but was drawn up with reference to the commercial opinion on the value of the Malabar rubber received from the India Office. It seems to show that so far as Malabar is concerned, the cultivation of ceara rubber trees is not likely to prove a commercial success. It is however possible, it is submitted that the yield of the trees may show an improvement as they grow older. No special [illegible] cultivation appears to have been made so far as

A

B

C

The gist to be sent from [illegible]

Yes, but as stated in the Note it may improve. Ask the Bd not to lose sight of the matter

30/10/97

Government (1897) of Madras.

REVENUE.

Recd. / Regd. } 1897. Enclosures / Spare copies

G.O., Nos. 914, 914A, 5th November 1897.

NOVEMBER.

Ceara Rubber Trees.

Recording, with remarks, Board's Proceedings approving the suggestion of the Conservator of Forests, Southern Circle, for publishing in the forest sheet of the Malabar District Gazette a report from M.R.Ry. Gurunatha Pillai on —.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Land Revenue), Forest No. 421, dated 29th September 1897 :—

Read—again Proceedings of the Board of Revenue (Land Revenue), Forest Mis. No. 249, dated 18th February 1896 :—

Read—the following letter from A. F. PINHEY, Esq., I.C.S., Acting Sub-Collector in charge, Malabar District, to the Secretary to the Commissioners of Land Revenue (through the Conservator of Forests, Southern Circle), dated Camp, Manantoddy, 16th January 1896, No. 12-For. :—

With reference to paragraph 2 of Board's Proceedings, Forest Mis. No. 1733, dated 15th November 1895, I have the honour to state that my District Forest-officers are of opinion that in this district the Ceara rubber trees will not yield a product of commercial value.

2. The District Forest-officer, North Malabar, omitted to weigh his specimens before despatch to England but calculates that the weight would be about 1½ lbs. in each case. The samples were taken from 21 and 40 trees respectively so that the revenue per tree is only about one penny or a half penny. The cost of collection of sample No. I was Rs. 1–14–0 and that of sample No. II Rs. 1–12–0. The average cost of collection might however show a decrease when a larger quantity is collected; but, presuming that Mr. Marshall's estimate of the weight of his specimens is correct, I do not think that it will pay to grow the tree in North Malabar.

3. In South Malabar the trees grow and seed well but do not yield sap in sufficient quantity to pay the cost of raising, maintaining and tapping them and of collecting and curing the rubber.

Endorsement by E. D. M. HOOPER, Esq., Acting Conservator of Forests, Southern Circle, dated Coimbatore, 6th February 1896, Cur. No. 1780.

Forwarded.

Resolution—Forest Mis. No. 249, dated 18th February 1896.

Recorded.

2. The Conservator is requested to look into the matter when he next visits Malabar.

3. If the tree has been grown to any extent by planters, the valuation should be published in the District Gazette.

(True Copy and Extract.)

(Signed) L. M. WYNCH,
Secretary.

To the Collector of Malabar.

Copy to the Conservator of Forests, Southern Circle.

Read—also the following letter from E. D. M. HOOPER, Esq., Acting Conservator of Forests, Southern Circle, to the Secretary to the Commissioners of Land Revenue, dated Coimbatore, 11th September 1897, Dis. No. 170 :—

I have the honour to submit, as desired in Proceedings, Forest Mis. No. 249, dated 18th February 1896, a report upon Ceara rubber in South Malabar by Extra Assistant Conservator Mr. Gurunatha Pillai and a separate return from North Malabar of the result of tapping the trees by Mr. Tireman, Assistant Conservator of Forests.

2. I would suggest the report of Mr. Gurunatha Pillai be published in the forest sheet of the Malabar district, and copies be sent to the Inspector-General of Forests, the Reporter on Economic Products, the Superintendent, Calcutta Garden, and "Indian Forester".

Read—also the following letter from M.R.Ry. V. S. GURUNATHA PILLAI, Acting District Forest-officer, South Malabar, to the Collector of Malabar, dated Nilambúr, 6th February 1897, Dis. No. 47 :—

[*Reference.*—Your endorsement, Forest No. 397, dated 10th December 1896, on copy of letter from the Conservator of Forests calling for a report on the results of experiments regarding the tapping of Ceara rubber trees.]

I beg to append a report on Ceara rubber called for in the above and to forward herewith (sent separately) the 24 lb. of rubber collected.

Enclosure No. 1.

Report on Ceara Rubber.—In January 1895 one hundred Ceara rubber trees were tapped in Iravallikavu both morning and evening, each tree was tapped six times, *i.e.*, twice a day for three days and 10 lb. of rubber was collected which was valued at 1 shilling 6 pence to 1–9 per lb. in England.

In the latter end of December 1896, 309 trees were tapped and 24 lb of rubber collected; the largest tree tapped, *i.e.*, 3 feet 9 inches in girth gave 8 oz. of solid rubber and the smallest, *i.e.*, 3½ inches in girth gave ⅛ of an oz.; on an average 1 oz. per tree was collected.

Method of Tapping.—A few trees were tapped by making incisions on the trunk of various shapes and little cups made from leaves were pinned underneath to receive the milk, but it was found that no milk could be collected in this way. The milk trickling down the stem from the incisions was after three days pulled off in long strips which gave a few grains of rubber per tree, but the rubber was of good quality, *i.e.*, clean and very elastic and free from the disagreeable odour.

The other trees were tapped as follows: the large roots near the surface were laid bare and incisions 1½ to 1 inch long and ½ an inch apart were made on the exposed roots with a bill-hook and the milk collected in little pits dug in the ground under the roots to receive the milk. The trees were tapped twice a day for three days, *i.e.*, between 6 to 10 A.M. in the morning and between 4 and 5 P.M. in the evening and on the next morning the milk was found to be co-agulated in hard tongues. These were removed and the tree tapped again as before.

It was noticed that the trees bled more freely in the early morning than late in the day; *i.e.*, a tree tapped at 6 A.M. would bleed for 10 to 15 minutes, while those tapped later would only bleed for 5 or 6 minutes, as the heat caused the milk to set much quicker and clog the milk ducts. Again trees growing on moist alluvial soil bled more freely than those growing on dry soil; a small sized tree with a girth of 21 inches standing on good moist soil and little distant from the surrounding teak gave 4½ oz. of rubber, while a tree growing on dry soil and surrounded by teak though 37 inches in girth gave only ¾ oz. of rubber. Particular notice was taken of the trees tapped in January 1895, the incision made then were completely healed and those that bled well then bled freely even this year. From this it is plain that soil and surroundings have a good deal to do with rubber-producing quantities of the Ceara.

In March and April 1896 attempts were made to tap but with little success, the trees bled but little; the weather being too dry and hot and the trees leafless; the best season to tap is between December and February.

From the experiment tried it has been noticed that trees planted 20 yards apart, *i.e.*, 100 trees per acre (the soil being favourable, *i.e.*, deep moist alluvial soil) will produce on an average 4 oz. of solid rubber per tree per annum when 3 feet in girth in about 18 years.

Endorsement by G. W. DANCE, Esq., Acting Collector of Malabar, dated 17th February 1897, C. No. 119-For.

Forwarded to the Conservator of Forests, Southern Circle, with reference to his letter, dated 8th December 1896, Ref. on Cur. No. 460.

Read—also the following letter from H. TIREMAN, Esq., District Forest-officer, North Malabar, to the Conservator of Forests, Southern Circle (through the Collector of Malabar), dated Manantoddy, 29th August 1897, C. No. 694-F.

[*Reference.*—This office Forest No. 1243, dated 26th March 1897.]

Twenty-three Ceara rubber trees were tapped at the end of May this year. The average girth of these trees was 21 inches. The yield was 8 oz. of rubber. These trees were tapped three times on three consecutive days. They had never been tapped before. In July, during a break in the rains, 67 trees, all of which had been tapped last September, were again tapped once. Their average girth was 27 inches and the yield was 20 oz. I will do some further tapping after the rains are over. I do not, however, think that the Ceara rubber is of any use as a rubber producer, compared with Ficus Elastica and Hevea Braziliensis.

Endorsement by the Collector of Malabar, dated 1st September 1897, Cur. No. 694-For.

Forwarded.

Resolution—Forest No. 421, dated 29th September 1897.

In its order, Mis. No. 4346, dated 1st November 1895, Government communicated a report on the specimens of Ceara rubber sent for valuation from the Malabar district to the Director, Royal Gardens at Kew. The Board then requested the Collector to report how far the valuation made in England indicated that the trees could be grown for commercial purposes. The Collector's report showed that the trees in his district could not be expected to yield a product of commercial value; the cost of raising the tree, and of tapping and curing the rubber was said to be prohibitive while the trees themselves did not yield sap in sufficient quantities.

2. This report was recorded, but the Conservator was requested to look into the matter when he next visited the district. It was also suggested that the valuation made in England should be published in the District Gazette if the tree had been grown to any extent by planters.

3. With his letter read above, the Conservator forwards a report from M.R.Ry. Gurunatha Pillai while acting as District Forest-officer, South Malabar, and another from Mr. Tireman, District Forest-officer of the Northern division, and suggests that the report from the former officer may be published in the forest sheet of the District Gazette. It is also urged that copies of the report may be forwarded to the marginally-noted officers.

The Inspector-General of Forests.
The Reporter on Economic Products.
The Superintendent, Calcutta Garden.
The Editor, "Indian Forester."

4. The Board approves of the Conservator's suggestions. A copy of these Proceedings will be forwarded to the Inspector-General of Forests, and the Government will be requested to furnish the other officers named above with a copy.

(True Copies and Extract.)

(Signed) R. C. C. CARR,
Secretary.

To the Conservator of Forests, Southern Circle.
" Collector of Malabar.
" Secretary to Government, Revenue Department.
Copy to the Settlement Branch.
" " Inspector-General of Forests.

Order—No. 914, Revenue, dated 5th November 1897.

Forest No. 203.

Recorded.

2. The experiments do not seem very encouraging, but the matter should be kept in mind and it should be considered whether the cultivation cannot be improved. The report called for in paragraph 4 of G.O., No. 766, Revenue, dated 7th September 1897, should be expedited.

3. As requested by the Board, copies of its Proceedings will be forwarded to the Reporter on Economic Products, to the Superintendent, Calcutta Garden, and to the Editor of the "Indian Forester." A copy of the present Proceedings will also be submitted for the information of the Government of India with reference to paragraph 6 of Mr. Ibbetson's letter, No. 798-F—174-4, dated 16th August 1897.

(True Extract.)

(Signed) G. STOKES,
Secretary to Government.

To the Board of Revenue (Land Revenue).
" the Reporter on Economic Products to the Government of India.
" the Superintendent, Royal Botanic Garden, Calcutta.
" the Editor of the "Indian Forester."

No. 914A.

Copy to the Government of India, Revenue and Agricultural Department, with copy of Proceedings, No. 766, Revenue, dated 7th September 1897.

(Signed) G. STOKES,
Secretary to Government.

Exd. Shaik Karim.

8. Copies.