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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue. DEPARTMENT

G.O. No. / B.P. No.	3102 237 - 240.	Press ~~Mis.~~
Dated	22. 12. 1865	107

Not to be folded or roughly handled

Read the following :—

No. 237. MINUTE BY THE HONORABLE THE PRESIDENT.

1. During my visit to the Hills I have inspected the different Chinchona Plantations, have made myself acquainted with the position, extent, present state, and means of development of each, and have, with the aid of the facts brought before the Government in the annual reports of Mr. McIvor, and especially in that of 1864-65, been able to arrive at the actual amount expended upon each of the Plantations, while the analysis, by Mr. Howard, of the specimen of bark furnished to him from the different Plantations, afford fair evidence of the *quality* of the material which the Government will be able to furnish. The only question, therefore, which remains undetermined, is the probable *quantity* of the yield per acre, and the return which the cultivation of the plant, under favorable condition as regards soil, exposure, moisture, &c., is likely to make for the capital expended upon it.

2. I will now proceed to lay before the Government the results of my observations, and to make such suggestions as may lead to the determination of the facts as regards the quantity of the annual returns, which remain as yet hypothetical, and to recommend the adoption of measures which will, I think, tend to encourage the application of private capital to the cultivation of Chinchona.

3. The first plantation which I visited was that in connection with the Botanic Garden at Ootacamund. It will be remembered that, at the commencement of the experiments upon the cultivation of Chinchona, there was a difference of opinion between Mr. McIvor, and Drs. Anderson and Macpherson, as to the proper treatment of the plant; these latter gentlemen affirming that, in accordance with the example set by the Dutch in Java, the young plants should be placed under the shelter of older trees, while Mr. McIvor expressed an opinion that they would flourish better in situations exposed to the ordinary influences of the sun and atmosphere. The Government, in the absence of any positive information, decided that the two theories should be tested; that a certain number of acres of forest should be planted with Chinchona ; while, as a general rule, the cultivation in the open should be adopted.

4. This was accordingly done. About 50 acres of forest, or what is termed the Dodabet plantation, in the immediate vicinity of the gardens, were planted with different species of Chinchona, while elsewhere the forest has been felled and burned, and the young Chinchona plants have been substituted for the forest trees. The present state of the Dodabet plantation is conclusive as to the propriety of adopting the system advocated by Mr. McIvor, for while in those portions of it where the Chinchona has been planted under the shelter of the forest, the plants are dwarfed, stunted, and exhibit but a very slight tendency to develope into trees: in situations identical as regards soil, height, and aspect, but where the only difference is the absence of shelter, they are growing rapidly, and are strong, healthy and well developed. The result, therefore, of my observation is conclusive as to the propriety of the course adopted by the Government at the suggestion of Mr. McIvor, in ordering the clearance of the forest from this plantation, a few acres, say ten, being left as evidences of the working of the two systems.

5. On the opposite slope of the same range of Dodabet hills, and consequently with a different aspect, upwards of 700 acres of land have been reserved by the Government for the extension of this Plantation, of these 350 acres have been cleared of timber, a portion of which has been planted with Chinchona, while at the bottom of the forest land a portion of grass land has been pared, cleaned, and planted, and the plants there appear to be doing as well as those which occupy the cleared portion of the forest.

6. The second Plantation which I visited was that at Mailkoondah, on the eastern or north-eastern slope of the Koondahs. I experienced a good deal of difficulty in reaching the site of this Plantation, which is in the heart of a forest of about 10,000 acres. When I arrived at the site, I found that little had been done beyond clearing about 170 acres of land, building a house for the Superintendent, some huts for the laborers, and commencing a Jail for the prisoners by whose labor, principally, it is proposed to bring this plantation into cultivation. Were it the sole object of the Government to procure a supply of Chinchona bark for its own purposes, I should not have been disposed to recommend the maintenance of this plantation; but looking to the fact that the soil is far more rich than that of any of the other plantations; that there are several thousand acres of equally valuable land in the immediate vicinity; that the plantation will form a nucleus round which planters will congregate, I am inclined to recommend that it should be maintained, and that a good road should be opened to it with as little delay as possible. The Government has reserved at this site some 2,500 acres, but this is far in excess of its wants. I should recommend the retention of 500 acres, and that the rest should be thrown open to the public.

7. The third plantation which I visited was that at Pykara. In its present state this consists—

First.—Of 40 acres, planted to the right and left of the road leading down by the side of the river from the upper to the lower falls. The difference of level, between the Superintendent's house at the top of the hill, and the dwellings of the laborers at the garden is said to be about 2,000 feet.

Second.—Of about 100 acres of land on the eastern and north-eastern slopes of the Neilgherries, looking into Mysore, of which about 60 are planted, and the remainder are cleared and in a state to be planted early next season.

Third.—Of a tract of land on the opposite or left bank of the Pykara river, which Mr. McIvor has commenced to clear, and a portion of which will be ready for planting early next year. The land on the right bank of the river is very stony, and portions of it are dry, the plants however seem to be doing well. I was not able to get across the river to the ground under clearance, but I was told by Mr. McIvor that the soil was superior to that on the opposite bank.

8. The fourth plantation which I visited was the principal one at Neddivuttum. This was commenced in 1861, and about 27,000 plants were put out during the rainy season of 1862. The quantity of land actually planted with Chinchona is about 300 acres, but additional portions have been cleared, much of which is ready to receive plants. The whole plantation, where the land now cleared is occupied, will comprise an area of 500 acres. Nothing can look better than the plants

which have been three years in the ground. They were placed at distances of 10 and 12 feet apart, which experience has shewn to be farther than necessary; 7 feet apart, which including the area taken up by drains, path-roads, &c., will give about 800 plants to the acre, is the distance now adopted. The three year old plants are 10 or 11 feet high, have stems 9 or 10 inches in circumference, and they throw out branches forming a large head. Notwithstanding the effects of a violent gale and a hail storm, which had visited the plantation a few days before my arrival, and which had stripped off a good many leaves, the plants looked remarkably well. Where however the wind had the power of sweeping up the valleys it shewed evidence of its action in branches broken, and bark rubbed off.

9. I inspected carefully several plants which had been cut down last year, a few days previous to my visit, and was gratified to find that most of them had thrown up fresh shoots, which in the course of twelve months had attained a height of full three feet, and exhibited a joint circumference very much in excess of that which the parent plant would have attained to. I was the more gratified to see this as it strengthened an opinion I had already formed as to the possibility of treating the Chinchona plantations as Coppice-wood is dealt with in England, that is, by cutting it down when the annual development of bark has arrived at its maximum, say, every five or six years. The period during which the Coppice-wood must be allowed to grow would of course have to be determined by experience, and I now suggest that a series of experiments should be made for the purpose of furnishing the Government with data upon which the probable annual returns may be calculated.

10. It has already sanctioned an experiment suggested by Mr. McIvor, viz., that of stripping off a portion of the bark of each tree over an area of about ten acres, and I think it would be advisable to cut down this year, say, three acres of the three year old plants, allowing them to throw up shoots from the stools, and to carry on the process annually over about the same area, so as to arrive, by direct experiment, at satisfactory information—

1st. As to the value of the yield in favorable situations of an acre of a given species of Chinchona, three or four years' old.

2nd. As to the annual rate at which the bark increases on the tree.

3rd. As to the per-centage of alkaloids in bark of different ages.

4th. As to the most profitable mode of treating the plant as a produce of bark.

11. Mr. McIvor is experimenting largely upon the effect of covering the bole of the trees with moss, both as a means of increasing the thickness and weight of bark, and of adding to the quantity of the alkaloids contained in a given weight. He deserves every credit for the zeal and energy with which he has applied himself to the study of the subject of the production of these alkaloids, and for the skill with which he has devised experiments for the purpose of illustrating his views. The result of these experimental enquiries will, in all probability, be evidenced by a large increase in the annual value of the return from the plantations.

12. I will now say a few words as to the work which remains to be done, both at the plantations themselves and in improving the means of communication

with them; before, however, I can express any opinion as to the work which remains to be done, the Government must come to some decision as to the extent of land which it is prepared to bring under cultivation.

13. I have said before that at Neddiwuttum about 300 acres of land are planted, and 200 more will be ready to plant in the course of next year, and the year after; these 500 acres will absorb nearly all the land within the existing limits, and I should not be disposed to add to this quantity. At Pykara 100 acres are planted, 60 acres are prepared, and some 80 or 90 acres are in course of preparation, while there is land of good quality which would admit of an extension of 200 acres, without pushing the clearance beyond the spot which it has now reached; if thus the plantation at Pykara be limited at present to 250 acres of Chinchona and, say, 300 acres of land additional to this, it will, in my opinion be quite sufficient, and I should recommend that the land reserved by Mr. McIvor in excess of this amount should be thrown open for selection to the public. At the Dodabet plantation there are 75 acres already planted, there are the means of extending this to 250 acres, and this would be sufficient for all the purposes of the experiment. The reserve of 750 acres to the east of the hill is more than can be ever required, and I should be disposed to recommend that 300 acres, in addition to the 250 acres planted, should be reserved by the Government, and that the rest should be sold. Mr. McIvor should be called upon to mark out the boundaries of the land he wishes to reserve to the amount of 300 acres or thereabout, in addition to the planted land, and the remainder should be sold in one or two blocks, as convenient, without reference to its position, should it be within the limits of the Cantonment. At Mailkoondah, as stated above, 2,500 acres have been reserved; I should limit the amount of cultivation here to 200 acres, and the whole area of land within the Government boundary to 500 acres.

14. It will be seen, with reference to the above figures, that the amount of land under cultivation will be as follows :—

	Acres.
Neddiwuttum	500
Pykara	250
Dodabet	250
Mailkoondah	200
	1,200

to this will be added, say, as a reserve

Neddiwuttum	100
Pykara	300
Dodabet	300
Mailkoondah	300
	1,000

The total area will be of—

Neddiwuttum	500+100 = 600
Pykara	250+300 = 550
Dodabet	250+300 = 550
Mailkoondah	200+300 = 500
Making a total of Acres	2,200

The first thing to be done as soon as the area of the different plantations, present and future, is decided, is to have a *plan* on a large scale made of each. The Government ought to be in possession of a plan of its own estate, and the public ought to know where the appropriated land ends, and that begins which is open to selection. Instruction should be given to the Surveyor to enclose the plantation within straight lines, and to give the figure of the enclosed portion as few sides as possible, his work will be rendered much easier by this, which ought to be laid down as a rule to guide Surveyors in general. The boundaries will be more easily marked, and any man will be able to determine for himself the area of land which will include the amount which he wishes to purchase.

15. The next thing to be done is to lay out roads, by which the produce of the plantation and the stores for the maintenance of the men can be easily conveyed to and from the market. From Neddiwuttum for instance, when the plantation is in full bearing, about 100 acres will be cut down every year, and the produce of each acre may be put roughly at one ton of bark, so that 100 tons will have to be moved to market every year; the same rule will apply to the other plantations. The new trace from Neddiwuttum to Ootacamund, which will answer as the line from the Goodaloor Ghaut, will answer every purpose of the establishment, and should be completed as fast as the means at the disposal of the Government will permit; from Pykara a branch requires to be made to join the above new trace, it may be a matter of question whether this should be carried upon the right or the left bank of the river; a bridge must at all events be made at some point between the upper and the lower fall, to enable the Superintendent to cross the river at all seasons.

16. To Mailkoondah a new road must be opened *with as little delay as possible*. I have been told that there is a fair line from the Devi Shola, following down a line of water-shed to the stream which flows into the Bowaney, and that a similar water-shed will be found on the opposite side leading up to the Koondahs. I have spoken on the subject to Major Farewell, and directed him to turn his attention to this line of road at once, as it is of special importance that it should be opened out with as little delay as possible. It would be advisable to place on the estimates for the next year, such a sum as would be sufficient to push forward such of these roads as are of the most importance, and specially to provide for the construction of the bridge over the affluent of the Bowaney, which should be of a solid description, for the floods come heavily down this river, and the whole communication with the Government and the other plantations will depend upon this bridge.

30*th October* 1865. (Signed) W. T. DENISON.

No. 238. MINUTE BY THE HONORABLE H. D. PHILLIPS.

I have perused with much interest the notes of His Excellency's examination of the Chinchona Plantations, which are contained in the above Minute. Personally I have no knowledge of any of the places where these Plantations have been formed, but referring to the Superintendent's last official report, and to the observations now made by His Excellency, I cordially concur as to the propriety of adopting

the several suggestions made in the above Minute, and of carrying them into execution at the earliest possible date that may be feasible with the means at the disposal of the Government.

(Signed) H. D. PHILLIPS.

1*st November* 1865.

No. 239. MINUTE BY THE HONORABLE T. PYCROFT.

1. I concur generally in His Excellency the President's proposals, but I must own that I entertain great doubts as to the expediency of carrying out a Chinchona Plantation at Mailkhondah.

2. The object of Government in establishing, at their own sole expense, Chinchona Plantations on the Neilgherries was to shew, practically, that the plant could be successfully cultivated there; that the soil and climate are congenial to it; that the culture would in all probability prove remunerative, and the prospects generally be such as to encourage private enterprise.

3. This, I conceive, has been fully demonstrated. Chinchona gardens have been laid out at Ootacamund, at or rather under Dodabettah, at Pykara, and Neddivuttum. Owing to Mr. McIvor's intelligence, energy, and fertility of resource, the plant has flourished at each of these four places. Its mode of cultivation is now thoroughly well understood, and private individuals are eager to embark in it, not on the Neilgherries only, but in many other parts of India and in Ceylon. It is a great success, *un fait accompli*.

See Mr. McIvor's last Report, 16th August 1860, paragraphs 14-15.

4. Here then the Government may, it seems to me, fitly pause. I cannot see that, as regards the legitimate object of Government in connection with Chinchona cultivation, or that of acting as pioneers, shewing the way, and keeping the field until private enterprise steps in to occupy it, anything would be gained by establishing a fifth Plantation at Mailkhondah.

5. To open this Plantation would involve considerable expense at the onset. It is a wild part of the country, some 15 or 16 miles at least from Ootacamund, not easily accessible, there is no labor procurable on the spot, and supposing that the work be done by convicts—for whom, by the way, there is already a very large demand for the Lawrence Asylum works, the hill roads, and the other Chinchona gardens—the superintending, provisioning, and giving medical aid to a body of prisoners so far from Ootacamund would be a matter of no small difficulty and expense.

6. That the Plantation would ultimately be remunerative, and the original outlay be fully repaid, is like enough, but this does not appear to me to affect the question. It is not the province of Government to make a profit by growing Chinchona more than anything else.

7. I would therefore recommend that the land at Mailkhondah, already marked out and partially cleared by Government, be sold under the Neilgherry waste land rules with the buildings on it, either at once, or as soon as the new road is opened. The execution of that road should be pushed on quite irrespective of the establishment of any Government Plantation there. Some lands have, I

believe, already been taken up there by private persons. The road would throw open, to private enterprise, an extensive tract of very valuable land, and the cost of forming it would be soon re-imbursed by the sales of land, the revenue derived from the lots purchased, and the indirect advantages resulting from the opening out that part of the Neilgherry plateau.

8. As respects the four (4) present Chinchona Plantations, I would proceed as advised by His Excellency the President. As regards the extension of the Pykara Plantation I would, however, suggest that, when the limits of the additional space to be cleared have been marked out, the spot should be visited by the Collector, with whom, for that particular duty, I would associate Colonel D. Hamilton, who should ascertain beyond all doubt and certify to us that the felling of the timber in the plots demarcated would not in any way injure the scenery about the Pykara falls.

2*nd November* 1865. (Signed) T. PYCROFT.

No. 240. ORDER THEREON, 22nd December 1865, No. 3,102.

Miscellaneous.

1. Ordered that the foregoing Minutes be transmitted to the Home Government.

2. The thriving condition of the Chinchona Plantations visited by His Excellency, is most satisfactory, and affords the best proof of Mr. McIvor's intelligence, energy, and fertility of resource.

3. Mr. McIvor will practically test the expediency of treating the Chinchona plantations in the same way as Coppice-wood is dealt with in England, by cutting down this year (say) three Acres of the three years' old plants.

4. Orders will be issued hereafter regarding the extent of land to be planted out and reserved on behalf of Government. Meanwhile, no land will be cleared in excess of the sanctioned extent of each Estate.

5. The Superintendent of Revenue Survey will communicate with Mr. McIvor, and arrange for the survey of the different Estates, and the preparation of plans on a sufficiently large scale.

6. Captain Farewell will be instructed, in the Public Works Department, to prepare the necessary plans and estimates for a bridge over the Pykara river between the upper and lower falls, and for the construction and completion of good roads to the different plantations. Provision will also be made in the Budget of that Department for vigorously pushing on these works.

(True Extract.)

(Signed) J. D. SIM,

Secretary to Government.

To the Superintendent Government Chinchona Plantations.
,, the Officiating Superintendent of Revenue Survey.
,, the Public Works Department.

Exd. S. T. Augustin.

Cinchona Plantations

Nilgiris

During my visit to the Nilgiris I have inspected the different Cinchona Plantations & have made myself acquainted with the position, extent, present state, and means of development of each, and have, with the aid of the facts brought before the Government in the annual reports of Mr McIvor, and especially in that of 1864-65, been able to arrive at the actual amount expended upon each of the Plantations, while the analyses, by Mr Howard, of the specimens of Bark furnished to him from the different Plantations afford fair evidence of the quality of the material which the Govt will be able to furnish, and the only question which remains to be determined is the probable quantity of the yield per acre, and the return which the cultivation of the Plant under favourable conditions can reasonably be expected to produce, & to which

make for the capital expended upon it.

I will now proceed to lay before the Govt the results of my observations, and ~~have~~ endeavoured to make such suggestions as may lead to the determination of the facts as regards the quantity of the annual returns which remain at present hypothetical, & to recommend the adoption of measures which will much tend to encourage the application of private capital to the cultivation of Cinchona.

The first Plantation which I constructed was that in connection with the Botanic Garden at Potacamund. It should be remembered that at the commencement of the experiments upon the cultivation of the Cinchona Officinalis, there was a difference of opinion between Mr Mc Ivor, and Drs Anderson & Macpherson as to the proper treatment of the Plants when taken up. The latter Gentlemen affirming that, in accordance with the example set by the Dutch in Java, the young Plants should be planted under the shelter of older Trees, whilst Mr Mc Ivor expressed an opinion that they would flourish better in situations exposed to the ordinary influence of the Sun and atmosphere. — The Govt in the absence of any positive information, decided that the two Theories should be tested, that a certain number of Acres of Forest should be planted with Cinchona, while as a general rule, the cultivation in the open should be adopted. This was accordingly done; about 50 Acres of Forest were worked in and the Officinalis planted in the immediate vicinity of the Garden, were planted with different species of Cinchona, while elsewhere the Forest has been felled & burned, & the young Cinchona Plants have been distributed per the Forest likewise. The present state of the Officinalis Plantation is conclusive as to the propriety of adopting the system advocated by Mr Mc Ivor — for while in

from pertions yet; where the Cinchona has been planted under the shelter of the forest the plants are dwarfed, stunted, and exhausted but but a very slight encouragement to development into trees, in circumstances identical as regards soil height & ~~exposure~~ aspect but where the only difference is the absence of shelter, they are growing rapidly, and are strong healthy & well developed the result therefore my observation is conclusive as to the propriety of the course advocated by the Govt at the suggestion of Mr Wilson in rendering the clearance of the Forest from the Plantation, a few acres, say 10 being left as evidence of the working of the two systems.—

On the opposite slope of the same range of Hodabet Hills, and consequently with a different aspect eastwards of 700 acres of land have been reserved by the Govt for the extension of the 350 Plantation; of these 350 acres have been cleared & a portion of timber a portion of which has been planted with Cinchona, while on the bottom of the forest land a portion of Grass land has been found & cleared & planted. and the Plant-

there appears to be doing as well as those which occupy the cleared portion of the Forest.—

The second Plantation which I visited was that at Mail Koondah on the Eastern or North Eastern slopes of the Koondahs.— In appearance differed a good deal & difficulty in reaching the site of the Plantation which is in the head of the Forest of about 1000 acres— when I arrived at the site I found that little had been done beyond clearing about 170 acres of land, building a House for the superintendent, some huts for the labourers, and commencing a jail for the prisoners by whose labour, principally, it is proposed to bring the Plantation into cultivation— which the Govt will direct & the Government to provide a supply of Cinchona Bark for its own purposes I should not have been disposed to recommend the maintenance of this Plantation, but looking to the fact that the land is far more rich than that of the Plantation I found that there are several thousand acres of Equally valuable land in the immediate vicinity, that the Plantation will form a nucleus round which

2. Plantain will engage;
I am inclined to recom-
mend that it should
be maintained; and
that a good road should
be opened to it with as
little delay as possible.
The Govt has reserved
at this date some 2400
acres, but this is far in
excess of wants -
I should recommend the
retention of 500 Acres,
and that the rest should
be thrown open to the
public

The third Plantation visited
was that of Sykaan.
In its present state this
contains 40. 40 Acres planted
about. 200 Acres planted
to the right & left of the
road leading down by
the side of the River from
the upper to the lower falls.
The difference of level be-
tween the Superintendents
dwelling house at the top
of the hill, & the dwellings
of the Labourers at the
foot of the hill is about 200 feet.
Garden in
2nd of about 100 Acres
of land on the Eastern
& North Eastern slopes
of the Hattyberries, Nothing
but Imperata, of which about
50 are planted, and the
remainder are cleared &
in such a state to be planted
early next season.

3rd of about planted in
the opposite or left bank
of the Sykaan River, which
Mr McIvor has commenced
to clear, and a portion of
which will be ready for
Planting Early next Year -
The land on the right bank
of the River is very stony,
and portions yet are dry
the Plants however seem to
be doing well. I was not
able to get across the River
to the ground under
clearance, but I was
told by Mr McIvor that
the road was suspension
& that on the opposite
Bank -

The fourth Plantation visited
was the principal
one at Peddiecottam -
This was commenced in
1861 and about 27000
Plants were put out
during the rainy season
of 1862 - The quantity
of land actually planted
with Anchoma is about
300 Acres, but additional
portions have been cleared
much of which is ready
to receive Plants. This
plantation, when done
and now cleared is
occupied, with exception
of about 500 Acres -
nothing can look better
than the Plants which
have been three years in
the ground - Those were

planted at distances of
10 × 12 feet apart which
experience has shown
to be farther than necessary
7 feet apart, which in
=cluding the Area taken
up by drains paths
roads &c will give about
300 plants to the acre,
in the distance now adopted.
The 3 year old plants are
10 or 11 feet high & have
a stem of 10 inches in
circumference, and
they throw out branches
forming a large head -
notwithstanding the
effects of a violent gale
and a hail storm,
which had visited the
Plantation a few days
before my arrival, &
and which had stripped
off a good many leaves,
the plants looked remar-
=kably well - which
however the wind
had the power of sweeping
up the valley &
showed evidence of this
action in branches
broken & hard rubbed
off -
I inspected carefully
several plants which
had been cut down
last year, a few days

previous to my visit, and
was gratified to find that
that most of them had
thrown up fresh shoots,
which in the course of
12 months had attained
about 8 or 9 feet
and exhibited a joint
circumference very much
in excess of that which
the adjacent plant would
have attained to. I was
much gratified to see
this as it strengthened
an opinion I had already
formed as to the practi-
=bility of treating the Eucalyptus
plantations as coppice
wood is dealt with in
England, that is by
by cutting it down
when the annual deve-
=lopment of bark has
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say every five or six
years - The period during
which the coppice wood
must be allowed to grow
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=rience and I know enough
that a series of experi=
=ments should be made
for the purpose of ascer=
=taining the Govt. are
doing what this
probably annual return
may be calculated

It has already been shown
an experiment suggested
by Mr. M'Ivor, namely
that of stripping off a
portion of the bark of Cinch
tree over an Area of
about 10 Acres, and of
which it would be consider
=dered to cut down annually
3 Acres of the three year
old Plants
allowing them to throw
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process annually over
about the same Area
do not arise, by direct
experiment, as to the
=pecting information
as the annual yield in favour
of the
=rable alternation of
an Acre of every species
of Cinchona at 3 or 4 years old
and at the annual
rate at which the Bark
increases on the tree
and as the contents
of Alkaloids in Bark
of different ages
as to the most profitable
mode of treating the Plant
as a producer of Bark—
Mr. M'Ivor's experiment
ing largely upon the effect
of covering the Bole of the
Tree with Bark Mats

both as a means of increasing
the thickness & weight of Bark,
and of adding to the quan=
=tity of the Alkaloids con=
=tained in a given weight—
he deserves every credit
for the zeal and energy
with which he has applied
himself to the study of
the subject of the production
of these Alkaloids, and
for the skill with which
he has devised experi=
=ments for the purpose of
illustrating his views — the
results of these experimen=
=ted enquiries will in
all probability be consider=
=ably increased by a more
=accurate knowledge of
the returns from the Planta=
=tions —
It will now only be necessary
to the work which re=
=mains to be done both
at the Plantations themselves
and in improv=
=ing the means of com=
=munication with them,
before however I can ex=
=press any opinion as to the
work which remains to be
done, the Govt must come
to some decision as to the
extent of Land which it is
prepared to bring under
cultivation —
Have read before that

at Bedridesettum about
300 Acres of land are plan-
-ted and 200 more will
be ready to Plant in the
course of next year & the
year after. At Sykes
two Acres are Planted
60 acres are prepared
and some 200 or 300 Acres
are in course of prepa-
-ration. While there
is land of good quality
which would admit
of an extension of 200
Acres, without touching
the clearance beyond
this a point which it has
now reached. Of the
500 Acres Plantation at Sykes
the limit at present
is 250 Acres of Cinchona
and say 300 of Land
additional which, at
which in my opinion
be quite sufficient -
at the Dodabet Plan-
-tation there are 75
Acres already
Planted. There are the
means of extending
this 250 Acres and
this would be suffi-
-cient for all the pur-
-poses of the Experiment
The reserve of 750 Acres
to the East of the Hill
is more than enough

then 500 Acres will include
nearly all the Land within
the existing limits. and
I should not be disposed
to add to this quantity.

and I should recommend
that the Land reserved
at the Doar in excep-
-tion to the
amount
this should be thrown
open for selection to the
public -

11

ever required, and I
should be disposed to
recommend that 300
Acres in addition to the
250 Acres Planted should be
reserved by the Govt
and that the rest should
be sold - In the Doar should
be called upon to mark
out the boundaries of
the land he wishes to
reserve for the Govt
or thereabouts
of 300 Acres, in addition
to the planted land,
and the remainder
should be sold in one
or two blocks, as con-
-venient without re-
-ference to position,
should be within the
limits of the Cantonment
of Naithoondal, as
stated above, 2000 Acres
have been reserved;
I should limit the amount
of cultivation here to
200 Acres and the whole
area of land within
the Doar out boundary
to 500 Acres - -
It would be seen with
reference to this above
figure that the amount
of land under culti-
-vation would be as
follows -

	Acres
Peddieweltenne	500
Pyhara	250
Dodabet	250
Maulkoondah	200
Acres	1200

It will be added as a reserve,

Peddieweltenne	100
Pyhara	300
Dodabet	300
Maulkoondah	800
Acres	1000

The Total Area will be	2200 Acres
Peddieweltenne	500+100=600
Pyhara	250+300=550
Dodabet	250+300=550
Maulkoondah	200+200=500
Making a total of	Acres 2200

The first thing to be done as soon as the Area for different Plantations, is agreed upon, is decided, is to have a Plan in a large scale made of Each - The Govt ought to be in possession of a Plan of their own estate, and the public ought to know what is the appropriated land and that beyond which is open to selection - Instructions should be given to the Surveyor to enclose the Plantation in straight lines

and to prefix figures of the ordered portion as far under as possible, this work will be rendered much easier by this; what ought to be laid down as a rule to guide the Surveyor. The boundaries will be more easily marked, and anyman will be able to delineate for himself the Area of land which he requires to purchase - The next thing to be done is to lay out roads by which the produce of the Plantation and the dung for the manuring of the trees can be easily conveyed to the public - The mode of from Peddieweltenne, when the plantation is in full bearing - about 100 Acres will be cut down every year, and each Acre may be put roughly at one Ton 2 Cwt each do that 100 Tons will have to be moved to market every year - The same rule will apply to the other Plantations - The rate

from Peddrewettumb-
-ottacamund which
will answer as the line
from the Gudalore Road
will answer every pur-
-pose of this establish-
-ment. and should be completed as fast as the means at the disposal of the Govt will permit
from Cyphara a hand
-some Bridge
has been made
to join the above new
Road with the Ootacamund
Road must be opened
with as little delay as
possible. I have been
told that there is a
fair line from the Doni
Hola, following down
the watershed to
the stream which flows
into the Bowany, and
that a similar track
should be found
on the opposite side
on the Koondahs;
I have spoken on this
subject to Major Jen-
-well and directed him
to turn his attention
to this Gudalore road as
one, as it is of special
importance that it
should be opened out
with as little delay as
possible - It would be

may be a matter of
question whether this
should be carried upon
the right or the left Bank
of the river a bridge must
at all events be made at
some point between the
upper fall & the Lower Anicut
to cross the River at all
seasons.

advisable to place on the
Estimates for the next
year such a sum as
would be sufficient
to push forward such
of them roads as are of the
most importance
and specially to provide
for the construction of
the Bridge over the Bowany
of the Bowany which
should be of a solid
description for the
floods come heavily
down this River, and
the whole communi-
-cation with the Govt
and the other Plantations
will depend upon this
Bridge.

W Rennick

Octr 30th / 1865

I have perused with much
interest the notes of Mr Ryan's
examination of the Cinchona
Plantations & are contained
in the above minute. Personally
I have no knowledge many of
the places where these plantations
have been formed; but assuming
the Superintendents last official
report, and to the observations
now made by Mr Ryan, I cordially
concur in the proposal of
adopting the several suggestions
in the above minute,

and I concur with
Mr Rennick in the hope
that measures
will be adopted with the means
at the disposal of the Govt
Nov 65
W M

I concur generally in the Resolutions proposed, but I must own that I entertain great doubts as to the expediency of carrying out a Chinchona Plantation at Trincomalee.

2. The object of introducing the Chinchona plantations on the Neilgherries was to show practically that the plant could be successfully cultivated there, that the soil & climate was favourable, and that the prospect generally was such as to encourage private enterprize.

3 That I conceive has been fully demonstrated. Chinchona seeds have been laid out at Botanical Gardens, at Ootacamund, at Darjeeling, at Kohan, & Sholas on the

See Mr McIvor's last report 16 August 1860 paras 14-15

Neilgherries, at Hakgalle, at Peradenia, & at Anuradhapura in Ceylon, & in many private gardens in Java, Ceylon, & India generally. It is a fact so well known, & so generally admitted by practical men, that the Chinchona will grow & flourish in almost any soil or situation, that it is unnecessary to adduce any proof of it.

4 That the Government should decline to be a party to any enterprize, which has been fully proved to be successful, & which is carried on by private individuals, is a principle which I cannot admit. It is the duty of Government to encourage private enterprize, & to assist it in every way in its power, & I am sure that the Government of India & Ceylon will be glad to do so. It is a fact well known to all, that the Government of Java, by establishing a system of Government Plantations, & by

Knightsbridge.

5 To open this plantation would in other commu-
-nications appear at first
sight. It is a thickly part
of the country - some
150 or 160 miles at least
from Ottawa and,
not easily accessible,
there is no labor from
-able on the spot, and
by proving that the work
is done by convicts - for
whom by the way there
is already a very large
demand for the Lauren-
-dry saw works, the hill
Road, and the other Civic
Corporation — the
superintending, provi-
-sioning, and giving me-
-dical aid to a body of
prisoners so far from
Ottawa would
be a matter of no small
difficulty and expense

6 That the planta-
-tion would ultimately
be remunerative is
principally owing to

enough - but this does
not appear to me to af-
-fect the question. It is
not the province of Govt
to make a profit by
farming, but income may
there any thing else -

7 I would therefore
recommend that the
land at Knightsbridge
already marked out
and partially cleared
by Govt be set under
the keeping
the Govt Land Agent
with the buildings on
it, either at once or as
soon as the new road
is opened - the execu-
-tion of that road should
be pushed on quickly
expectation of the esta-
-blishment of any
such plantation there.
Some land near Gloucester
-ter should also be
taken up, there by spe-
-cial persons. The road
would then open from

private enterprise an
extension to that of any
other such land, and
the cost of forming it would
be soon reimbursed by
the sale of land, the
increase derived from
the tolls proceeded, and
the indirect advantages
resulting from the opening
out that part of the
Kellyan plateau.

S As respects the formation
of permit Chinese
plantations I would
propose an address
by HE the President.
As regards the cultiva-
tion of the Pykara
plantation I would
here suggest that
when the limits of
the additional span
to the land have
been marked out,
the spot should be
visited by the Coll-

— with whom for that pur-
-pose one I would
associate Col Hamil-
-ton — who should ac-
-certain beyond all
doubt and certify to
me — that the felling of
the timber in the pla-
-ntation would
not in any way in-
-jure the scenery
about the Pykara
falls —

2.11.65 J Hyde

No. 3581.
Minute by the Hon.
J. Pyecroft

Dated 2d. 3 Novem.
Received 3 1865.

Pen = 1865. Depart.
Pro: of Govt for Dear
No. 3579.
Minute by the Hon: the
President.

Dated 30th. 3 Octr. 1865.
Received. 9

No. 3580.
Minute by the Hon: H.
H. Phillips.

Dated 1st. 3 Novem. 1865.
Received 3

S. O. No. 3102. 22d Decr

No 237 @ 239.

22d Decr/65

No. 3102.

Read the following papers.

Minute of H.E. the President
30 Oct 1865.
" " the Hon.ble H. D Phillips.
1 Novr. 1865.
" " the Hon.ble J. Pycroft
2 Novr. 1865.

—

Ordered that the foregoing Minutes be transmitted to the Home Govt.

— The Missing Condition of the Chinchona Plantations recited by H.E. is satisfactory

attends the

best proof of
Mr McIvor's
intelligence, Energy
and perfect of
resource -

Mr McIvor
will practically
test the Experiency
of treating the
Chinchona plan-
tations in the same
way as coffee
work is dealt with
in England. by
cutting down
that year (say)
three acres of the
three & year
old plants.

Orders to
be issued to

Meanwhile no
land will be
cleared in excess
of the sanctioned
extent of each
Estate -

after, Expending
the Extent of land
to be planted out
and reserved
on behalf of
Govt.

The Dept of Revl
Survey will com-
municate with
Mr McIvor and
arrange for the
Survey of the
different Estates
and the prepa-
ration of plans
sufficiently
large scale -
at Paraul
to be instructed
to P. W. D. &

prepare the ne-
cessary plans
& estimates for
a bridge over
the Big Horn
River between
the upper & lower
falls and for
the construction
& completion
of such roads
to the different
reservations &c
as the
Secretary
of State
for Dispos-
ing of
Lands.

Revenue 1865 Septr.

Pro: of Govt. for Decr.

No 3702.

Pro: of the Madras Govt.

Dy 22d Decr/65.

Transmitting to Home Government Minutes on Cinchona Plantations by the Members of Government and ifoning orders with reference to certain suggestions of the President-