

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.**Government of Madras.***Public works* **DEPARTMENT.**

G.O. No. 1484	Press
249-250	Mis.
Dated 15-6-	1872.

Not to be folded or roughly handled

No. 249. Read the following letter from the Acting Superintending Engineer, 7th Division, to the Secretary to Government, Public Works Department, dated Coimbatore, 19th April 1872, No. 11 :—

With reference to G. O., No. 119, dated 12th February 1872, as desired, I

have the honour to forward the report therein called for from Mr. Nordmann, the Executive Engineer of the Irrigation Range, Coimbatore District, and I beg very respectfully to express a hope that, if Government determine

that any portion of the project be carried out, or further investigation be made, a special officer may be deputed for the purpose, as Mr. Nordmann has already devoted more time to the work than the heavy duties of his range can afford to lose.

From K. NORDMANN, Esq., Executive Engineer, Irrigation Range, to the Superintending Engineer, 7th Division, dated Bhowany, 13th April 1872, No. 75.

With reference to your endorsement, dated 22nd February 1872, on Government Order (Department Public Works) No. 119 of 12th February 1872, returning for revision the estimate* for improving the means of floating timber on the Burghoor and Cauvery rivers, I

* Rupees 3,38,000

have the honour herewith to submit a revised estimate amounting to Rupees 1,21,500, and beg to append the following observations.

2. It has now, I believe, been definitively demonstrated by experiments carried out in the Forest Department, that the Burghoor stream is utterly impracticable for floating fuel on either boats, rafts, or in loose logs, owing to the uncertainty and paucity of the freshes, and their short duration and violent nature when they do occur. The fuel which grows in abundance in the valley of that stream must, therefore, be got out by other means than floating. It still appears to me that a light tramway would answer this object best, and be cheaper in the end than any other mode of conveyance; and I have no doubt it will eventually have to be adopted, especially when the demand for railway fuel from this locality assumes greater proportions, as it must ere long do.

3. However, as the Government have decided that they have no intention at present of constructing the tramway, the only way that remains for obtaining easy access to this valley, and securing a regular supply of fuel, seems to me to make a cart road instead of the tramway. This would be cheap, become at once useful for fuel transport, and remain useful even if a tramway is eventually decided on, the construction of which it would itself assist to facilitate, while it could in no way interfere with the tramway.

4. As stated above, floating on the Burghoor stream has been fairly tried and found not to answer. It is, therefore, out of the question. To attempt, with a view to navigation, to improve the stream by blasting rock, throwing a dam across or building locks, would not, I submit, be worthwhile, as it would be certain to be very expensive and yet not answer the purpose in view, there not being a sufficient and regular supply of water at command. The fall of the bed also is very considerable (403' in 14 miles, or an average fall of 28' per mile), as will be seen from the accompanying longitudinal section, taken along the bed, from the foot of the Northern Burghoor Ghaut at Gurkecundy to Kudalur, at the confluence of this stream with the river Cauvery.

5. The proposed road will become useful generally, and not for the conveyance of fuel alone, as it will, in conjunction with the Burghoor Ghaut, open out this part of the district which has so far been almost a *terra incognita*, save to the sportsmen. In fact, this road would, to a smaller extent, secure those advantages, I have formerly* described as likely to accrue from the construction of a tramway. This

* Vide paragraph 7 of my letter, printed with G. O. (Revenue Department) No. 240 of 6th February 1872.

*Proceedings of the Madras Government, Public Works Department,
15th June 1872.*

road will also prove cheaper, and more reliable in a wilderness, because more simple than the wire railway up the valley to be worked by a fixed engine at the mouth of the Burghoor stream as proposed by Colonel Morgan.*

* *Vide* paragraph 9 of my letter above quoted.

6. And I would also again,† in connection with this subject, beg to urge the completion of the Northern Burghoor Ghaut as part of the scheme now under consideration, there being

† *Vide* paragraph 8 of above letter.

great quantities of fuel obtainable from the Burghoor Hills, as well as from the valley of the Burghoor stream.

7. Further, as there is a vast amount of fuel available in the valley of the Cauvery, north of its confluence with the Burghoor stream, and the river there is rather impracticable for floating purposes, I would propose to run a cart road (or eventually a tramway) along the western bank of the Cauvery from Allumbadly in the north to the depôt to be established at Kúdalúr, where the fuel brought from both the Cauvery and Burghoor valleys would be shipped in rafts or boats to be floated down to Erode. The length of this road would be 17 miles, and its cost probably less than that of clearing away the obstructions in the river bed for the purpose of navigation, while this road as well as that in the Burghoor valley would be instrumental, besides developing the capacities of this part of the district, in opening communication for the benefit of the Forest Department, with the important timber reserves on the Poonássymallay hills, and this road would be used at all seasons to store up wood at the depôt, thence to be floated during the freshes.

8. When these two roads are made, it will be practicable and advisable for the Forest Department, instead of employing their own hired men on the jungles to cut and saw wood and convey it to the river bank (which I have no doubt that department finds very expensive) to have the wood delivered by contract at the Kúdalúr depôt, thence to be floated by the Forest Department. It is a well known fact and requires no explanation that private contractors who work for their livelihood do their work cheaper than any Government agency could do the same, and as there is no skill required to cut and saw wood and convey it to the river, there seems no reason why the contract system should not be tried in this instance, and its pecuniary results compared with the expenditure by the Forest Department on the same object, contractors would, of course, require permission to cut the wood, license free. I have made particular inquiries on this subject, and have received offers by substantial men, who agree to deliver (even now, before the roads proposed are made) the wood sawn to proper dimensions for Rupees 2 per ton at Kúdalúr, and Rupees 7 per ton at Erode. I believe this is very much cheaper than the rate at which the Forest Department is doing the work now; and with the proposed roads constructed, a still cheaper rate could be attained by the employment of private contractors.

9. As regards the improvements required for the navigation of the Cauvery river between Kúdalúr and Erode, and their cost, I see no grounds from the limited amount of work so far done and the experience gained for altering the original estimate (Rupees 26,000) for blasting rock in the river bed and completing the channel round the Nerinjepett Anicut. The lock formerly proposed for this channel, as well as that for the new Mylady Goondoo Anicut (when built), may, I think, for the present be omitted from the estimate, at least until the new anicut is constructed, and some more practical experience has been acquired in the conveyance of fuel by boats and rafts.

10. The new cut round the Nerinjepett Anicut was not completed, owing to stoppage of funds by order of the Government of India. The work so far done, which is only part of the original scheme, has already resulted in accommodating to some extent the fuel transport, though with considerable risk, 600 tons of fuel having been passed through, but, as Colonel Morgan states, with difficulty. Several rafts were upset, and the floating had to be stopped when the water got low. The present sudden fall and sharp curve near the mouth of the channel where the water impinges on the bank and causes a wave, and the meeting of the two currents flowing through the channel and over the anicut respectively and causing another wave, these are the chief obstacles to successful floating through the channel now.

*Proceedings of the Madras Government, Public Works Department,
15th June 1872.*

11. The original plan was from a point above where the two currents meet and cause rough water and high waves, to cut a new channel through the high ground, avoiding the rocks in the present channel and rejoining the river lower down, whereby the fall was decreased, and the rough

Vide Survey.

water caused by the rush over the anicut avoided. Now, since the passage through the

mouth of the existing channel has been improved, though not completed, and the rocks in the bed have been mostly blasted, in order to temporarily accommodate boat traffic pending the excavation of the new cut, and from further and repeated careful examination of the ground, it does appear to me the better plan not to carry out the cut as originally proposed, but to straighten the channel as well as ease the gradient of its bed by making a new cut to lead the river to the mouth of the channel. This has the advantage over the other line that it leads through ground only half the average height of the other, and there are no rocks here, while there would most likely be heavy blasting required on the original line.

12. I would protect the entrance from the Cauvery into this new cut by connecting the bank with a large rock conveniently situated in the river.* I would also close the mouth of the

* *Vide* Survey.

existing channel by a rough-stone groyne or dam, and I would divert the course of the tail water of the anicut by another groyne to prevent any disturbance of the current in the channel. By these means a perfect passage for boats and rafts would be established, straighter than the line originally proposed, with an easier descent, and rendering harmless the two most dangerous spots marked A and B on the accompanying survey. The few remaining rocks in the existing channel can be easily removed. The cost of this cut, with the groynes, will not exceed that of the channel at first proposed, while by this arrangement the whole of the work so far done to the channel will be utilized and nothing thrown away.

13. The estimate now submitted, amounting to Rupees 1,21,500, is I consider for a complete project (as called for by the Government of India) of opening out the fuel reserves of the Burghoor and Cauvery valleys, and of the means required to float the fuel to Erode.

No. 250. ORDER THEREON, 15th June 1872, No. 1,484.

CIVIL WORKS, No. 20.

THE Government are not of opinion that regular roads, such as call for the professional co-operation of the Public

Works Department are required exceptionally to open out the forest tracts of Collegal more than any other similar tract in which the Forest Department are in the habit of working; nor did they call in the Order to which these papers reply for any road estimates, but for "an estimate for improving the means of floating timber down the Burghoor and Cauvery rivers in sufficient detail to satisfy the requirements of the Government of India."

2. Three out of four of the so-called estimates now submitted were accordingly uncalled for; and the fourth (for Rupees 26,000 out of an aggregate of Rupees 121,500) in no way satisfies the requirements of the Government of India. None of these estimates bear evidence on their face of having taken up so much of Mr. Nordmann's time as the Superintending Engineer complains of. His time has been wasted on unpractical and expensive schemes, such as that of a tramway, which the Superintending Engineer might have guarded against by keeping him more strictly to the points referred for report and estimate.

3. The Government are not at all satisfied that Major Beddome's idea of utilizing the Cauvery for floatation of single logs of timber cannot be carried out

*Proceedings of the Madras Government, Public Works Department,
15th June 1872.*

without the slightest risk to the Railway bridge at Erode, provided the river be availed of at proper times only, and other precautions taken. Timber is never floated down at high freshes, but only after the freshes have gone down, still leaving a more than average supply in the river; and the Cauvery might probably be so availed of between the south-west and north-east monsoons, and after the latter, say up to January. And Nerinjepet anicut and the Bhowany bridge afford excellent points at which to arrest the progress of single logs, and form them into rafts for safe transport lower down, using bamboos to lighten the heavy wood.

4. The Government approve the new channel proposed in Mr. Nordmann's paragraphs 11 and 12, but request the Superintending Engineer to have it properly estimated for without any lock. They are satisfied by Mr. Nordmann's levels and report that the Burghoor stream cannot in any way be utilized, but wish to know with reference to possible reservoir projects whether the levels were carried further up the stream into the Nulloor valley or down the Cauvery as low as Ramakato. The widening of the Northern Burghoor Ghaut, though a valuable local work, can hardly be advocated in connection with the subject under review.

5. The Conservator of Forests and Colonel Morgan will report whether, as the Burghoor river cannot be made navigable, there is sufficient wood in the vicinity of the Cauvery to render an expenditure of Rupees 26,000 on the Cauvery advisable, and whether the proposed roads are likely to prove remunerative to the department.

(True Extract.)

Captain, R.E.,

Acting Joint Secretary to Government.

To the Superintending Engineer, 7th Division.
.. Conservator of Forests.
.. Revenue Department.

Exd. E. C. Shunker.

No. 11
Supr Engrs Office 7th D. P.
Chimbatore 17th April/72.
From
Lieut Colonel W. Farewell S.C.
By Supr Engineer 7th Division
The Secretary to Government
P. W. Department
Madras

Enclosures

Irrigation Range

Office's letter No.

75 dated 15th April/72.

Letter of No. 121500

Survey

Section of levels.

* By book post

Sir,
With reference to L. C. No. 119 dated 12th February 1872, as desired, I have the honor to forward the report therein called for, from Mr. Nordmann the Executive Engineer of the Irrigation Range, Chimbatore District, and I beg very respectfully to express a hope that, if Government determine that any portion of the project be carried out or further investigation be made, a special Officer may be deputed for the purpose, as Mr. Nordmann has already devoted more time to the work than the heavy duties of his Range can afford to lose.

I have the honor to be
Sir,
Yours most obed^t servant.

W. Farewell S.C.
By Supr Engineer 7th D. P.

Public Works Department
 No. 1484
 Proceedings of the Madras Government
 Read the following

From The Supg Engineer
 J. E. S. 11/2/19 April 1922

I think this draft
 is much to move on
 it is much to move on
 a 3rd hand & is not
 a 3rd hand & is not
 a 3rd hand & is not

J. D. S.

I would exhibit
 about traces. J. D. S.

The Government
 are not of opinion that
 regular roads such
 as call for the profes-
 sional cooperation of
 the Public Works De-
 partment are required
 exceptionally to open
 out the Forest Tracts
 of Collegal more than
 any other similar
 tract in which the
 Forests

Dec 12 - 1872

Dec 1872

transferred to

the Revenue Dept

with reference to the

order in the Dept

to the Secretary to Govt
 of Madras

Dec 1872

Dec 1872

Forwarded report
 on about the memo
 of the Public Works
 on the Public Works
 on the Public Works

Dec 1872

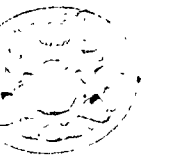
Dec 1872

Dec 1872

Forest Department are
in the habit of working -
nor did they call in
the Order to which these
papers reply, for any
Road Estimates, but
for an Estimate for
improving the means of
floating timber, down
the Burghoor and Cau-
very Rivers in sufficient
detail to satisfy the
requirements of the
Government of India.
Three out of four of
the so called Estimates
now submitted were
accordingly recalled
for, and the 4th for
Rupees 26000 out of an
aggregate of Rupees 121500,
in

10
in no way satisfied
the requirements of
the Government of
India. Some of these
Estimates bear evidence
on their face of hav-
ing taken up so much
of Mr. Hardman's
time and the Superin-
tending Engineer
complains of. The
fact is that Lieut.
Colonel Farewell must
blame himself for not
such as that of
a Tramway, wh. having directed the
the Sup. Engineer. Range Officers' zeal
might have
directed against more practical
by ~~keeping him more~~
~~keeping him more~~ strictly to channels than that
the points of the
referred for reports of a Tramway
need estimate and such like expenses
arrangements

arrangements. It is
Government who may
more reasonably complain
that while Mr. Nordman's
labours have resulted
in a series of levels and
general information
which will ultimately
be of use in Coimbatore
District work, they have
afforded no practical
result in the special di-
rection they indicated.
Superintending Engineers
are held out to utilize
the work of active
Range Officers, and
to continue them
along their peculiar
problems. The Government
are



are not at all satisfied
that Major Bealdon's
idea of utilizing the
Canary for floatation
of single logs of timber
cannot be carried out
without the slightest
risk to the Railway
Bridge at Erode,
provided the Rivers
be avoided of at proper
times only, and other
precautions taken.
Timber is never floated
down at high freshes,
but only after the
freshes have gone
down, still leaving a
more than average
supply in the River
and

and the Canvey might
probably be so availed
of between the South West
and North East Mon-
soons, and after the
latter, say up to January.
~~And~~ Verinjeet's Ancient
and the Showany Bridge
afford excellent points at
which to arrest the pro-
gress of single logs, and
~~from~~ ^{join} them into rafts
for safe transport lower
down, using Bamboos
to lighten the heavy wood.

The Government
approve the new Chan-
nel proposed in Mr
Nordmann's paras 11 & 12
but request the Supd
Engineer

Engineer to have it
properly estimated
for, without any lock.
They are satisfied
by Mr Nordmann's
views and report that
the Burghoor stream
cannot in any way
be utilized, but wish
to know with reference
to the ~~future~~ ^{Preserve} Project
whether the Levels
were carried further
up the stream into
the Valley.

or down the Canvey
as low as Ramabota

as low as Ramabota
- 2nd

as low as Ramabota
- 2nd

as low as Ramabota
- 2nd

The widening of
the Northern Bur-
ghoor Channel is
though a valuable
local work, can
hardly

as low as Ramabota
- 2nd

hardly be advocated
in connection with the
subject under review.

Wm. Tamm 4/11/72
29.4.72

The Committee of
Friends of the Museum will
be asked to report
whether or not the
Weymouth River can
be used for
filling in the
vicinity of the
Canary wharf.
The Committee will
be asked to report
whether or not the
Canary wharf can
be used for
filling in the
vicinity of the
Canary wharf.

John Cooper

There are no proposed
roads - Wm

To the Superintendents of the
"Conservation of the
River Dept."

1st June/72
6th May/72

Dec 18/6/72

hardly be advocated

Chas. Post.

Govt. of 1872 Madras.

PUBLIC WORKS.

To The Superintendent Engineer
of the Division

Dated

Recd.

Encl.

G. O. 15th June 72, No. 1484.

Nos. 249 & 250

Floating timber. Passing
orders on letters from the
Supergr. of the 2^d Div. Submitting
reports, &c. in connection
with the project for improving
the means of floating timber
down the Noyahar and
Laurel Rivers.