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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons 20. 5. 1860

G.O. No.	1029	Press Mis.
105-06 Dated	17-5-	1860.

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
for the month of May 1860.*

Read the following papers:—

No. 104. Letter from Colonel J. H. BELL, Chief Engineer, to J. D. BOURDILLON, Esq., Secretary to Government, dated Chepauk, 26th April 1860, No. 12,729.

1. I have the honor, with reference to the Order of Government as per margin, which has been duly communicated to the District Engineer of Coimbatore with the requisite instructions, to submit a letter from that Officer written in answer to a reference from myself on the subject of the comparative merits of the Kunúr, and Sírumugé and Kotergeri Gháts as lines of communication between the Nilgiris and the plain country of Coimbatore.

Dated 4th April 1860, No. 689.
1 Letter from the District Engineer, Coimbatore, March 25th 1860, No. 340.
1 Sketch.
1 Letter from Captain Francis, dated 3rd May 1856, No. 103.

2. Until some weeks ago, I had never heard of the Sírumugé and Kotergeri line proposed by Captain Francis, and reviewed in the Order of Government of the 19th December 1856, No. 2,362. When the subject of the new trace of the Kunúr Ghát was under consideration by me with reference to the District Engineer's proposition treated of in my letter of the 6th of June 1859, No. 1,285, I did not find in all the papers any allusion to the circumstance that Captain Francis had relinquished the idea of forming a carriage road between Kunúr and the low country, and had declared a decided preference for a new line to the eastward. Had I been at the time aware of the important correspondence which had taken place on the subject of the new line, I should have proposed to direct the attention of the District Engineer to it. It appears from his letter that he has never seen the line; but though he prefers the Kunúr line on account of the saving of distance, and length of new road to be opened, he is inclined to believe that the engineering difficulties will be greater upon it than upon the other.

Paragraph 6.

3. After much consideration of the subject, I must say that I feel extremely doubtful of the good policy of attempting to open a new carriage road in the Kunúr ravine. The Government has actually sanctioned the work; but it is not too late to reconsider the subject, and reconsideration is in my judgment imperatively required.

4. As yet we know nothing of Mr. Fraser's trace, but that its gradient is according to his testimony 1 in 25. Of the plan of the trace we are in profound ignorance, though that is the point of paramount importance; for it is one thing to trace an easy gradient on a steep mountain, and another to cut a road of the requisite width along the trace. From what Captain Francis says of the number of turns indispensable in forming a road in the ravine, I should judge that it may turn out impossible to widen the road sufficiently for the extensive commerce which is anticipated between the Hills and the low country; and unless it is certain before-hand that the road can be made of adequate width, I believe that it would be a great mistake to undertake it at all when the necessary expense is considered. Of the expense of forming the road again we are in equal ignorance. When I suggested in my letter of the 6th of June 1859, No. 1,285, 2½ lacs, I was unacquainted with the opinion of Captain Francis and others of the great difficulty of the line. From what I now know, I should be sorry to pledge myself to that limit or even to much more. I fear that unless the subject is more thoroughly investigated, the Government may find itself embarked upon a very expensive project of doubtful utility.

Paragraph 3, of letter of 3rd May 1856, No. 103.

5. Upon the whole I am much disposed to think that the best plan for present circumstances will be to endeavor to improve the present Kunúr Ghát to such a degree as to admit of its use by carriages with reduced loads or increased power of traction. The lower part of the Ghát is as easy probably as that of Segúr. Near the summit, and at other places alterations of the line are essential, and there is reason to believe are practicable. If the alignment were thus reformed, and the road were kept always smooth by a liberal maintenance allowance it is very probable that it would be as well adapted as the Segúr Ghát for carriages. It would indeed be very far from an easy line of communication; but it is worthy of consideration whether a short and steep line is not upon the whole the best where the rests of a longer one would be in unhealthy situations. It is certain that the whole distance would usually be traversed in the shortest time on the

shortest line; and if such a line were so improved as to carry carriages, provision being made for relieving the cattle from distress by lightening the loads or adding to the tractive power, while at the same time there would be a very great saving of expense by the measure, it appears to me that the result would be in every way satisfactory. It should be remembered that the Kunúr Ghát is already made, that difficult as it is it carries an immense traffic, that it may not improbably be made as good as the Segúr Ghát on which carriages are used, and that if its surface after improvement of the alignment were maintained in the best possible order it would then be a far better communication than the Segúr Ghát has yet been.

6. I do not think that Captain Francis' new line by Sírumugé and Kotergiri requires further investigation at present, though it should not be lost sight of, for it promises to be required hereafter, and to be the best line for the formation of an easy cart-road should such a work prove to be really necessary. It would be of course very easy and inexpensive, if a branch Railway were now laid from any point of the South-West line, to extend it to Sírumugé; and the Sírumugé and Kotergiri Ghát may, therefore, be reserved for future consideration.

7. As my office and responsibility in the Department of Public Works will very soon cease, I have not thought it advisable to give any instructions to the District Engineer with reference to the foregoing remarks which I submit for the consideration of Government, not doubting that the important subject upon which they are offered will be disposed of upon its merits after proper enquiry.

8. I have not touched upon the project referred to in paragraph 8 of the Order of the 19th of December 1856, No. 2,362, for a Railway incline on the Kunúr Ghát, because immediate action for the improvement of the communication is necessary, and the incline would certainly require such an amount of preliminary investigation as would very greatly delay the execution of any work.

No. 105. MINUTE BY THE HONORABLE THE PRESIDENT.

I take the same view as Colonel Bell. The Kunúr Ghát is the shortest line; it is the line which has been already made; and it may be much improved by rectifying the trace and keeping the road smooth. The other longer line may be wanted hereafter, but at present, we should attend to what is immediately necessary and immediately practicable. For a work of this great importance and peculiar character, however, I should like to see a well qualified Officer specially selected to act under the general directions of the District Engineer. I do not think the Agency at present employed, however respectable, of a sufficiently high order.

(Signed) C. E. TREVELYAN.

Gindi Park, 2nd May 1860.

No. 106. ORDER THEREON, 17th May 1860, No. 1,029.

1. The Chief Engineer submits with this letter a report from the District Engineer of Coimbatore on the comparative merits of the Kunúr Ghát, and of that by Sírumugé and Kotergiri, as approaches to the Nilgiris, and states his opinion as to the best mode of dealing with the Kunúr Ghát.

2. The Government fully agree with Colonel Bell in objecting to the line by Sírumugé. It is many miles longer from Ootakamund by that line into the low country, than by the Kunúr Ghát, even with a reduced gradient; and the line would be very much more expensive to make, and would be much longer in execution. Further, it would pass some miles from Wellington, to which a branch road would be necessary.

3. Colonel Bell's remarks and suggestions as to the mode of dealing with the Kunúr Ghát require more careful consideration. Colonel Bell advises that the new trace up this valley, begun some years ago under Captain Francis and recently completed by Mr. Fraser, should not be adopted, on the ground that, in practice and for the kind of traffic using the Ghát, the

inconvenience of the longer ascent would more than counterbalance the advantage of the easier gradient, especially as it would involve a halt within fever range. He proposes, therefore, that the operations should be confined to improving the present line, by reducing the gradient where it is steepest, and making and maintaining a thoroughly good and smooth surface.

4. The Governor in Council considers that there is much weight in the views and arguments stated by Colonel Bell. And there are the further considerations that a road, such as he advocates, might be made at much less cost than the longer descent and in a much shorter time. Before passing a final Order, however, the Governor in Council is desirous to have the deliberate judgment of a competent Officer, after inspecting the locality and making special inquiries on the points involved in the present question. The Chief Engineer will be requested to take the necessary steps to obtain such a report as soon as possible. The rapid advancement of the Railway to completion makes it important that no avoidable delay should take place in commencing operations.

5. As soon as the line shall have been resolved on, it is the desire of Government that the execution of the work should be entrusted to an active and efficient Officer selected for this particular duty and free from other avocations.

(Signed) J. D. BOURDILLON,
Secretary to Government.

Central Office of Mr.
Chapman
26th April 1860

N^o 12729

From ~~Chief Engineer~~
The Chief Engineer,
To the Secretary to Government M.D.
Sir,

Public

dated 4th April 60
N^o 689

Enclosed 3
1 Letter from the
S^t. Engrs Committee
dated 2nd April 60
N^o 340
1 Sketch
1 Letter from Capt.
Foster 2nd 3rd May
N^o 103

Thimuge
K. B. G. P.

1. I have the honor, with
reference to the Order of Government as
per margin, which has been duly
communicated to the District Engineer,
officer in charge with the request in-
structions, to submit a letter from
that Officer written in answer to a
reference from myself on the subject
of the comparative merits of the
Kunir, and Shemoggy and Kotegherry
ghats as lines of communication be-
tween the Nilgiris and the plain
country of Coimbatore.

2. Until some weeks ago
I had never heard of the Shemoggy
and Kotegherry line proposed by
Captain

12

Captain Francis, and reviewed in the
Order of Government of the 19th December N^o 2362
1856. When the subject of the new trace
of the Nunivik Strait was under consid-
eration by me with reference to the
District Engineer's proposition treated
of in my letter of the 6th of June 1857, N^o 1285
I did not find in all the papers any
allusion to the circumstance that
Captain Francis had relinquished
the idea of forming a carriage road
between Nunivik and the low country,
and had declared a decided preference
for a new line to the eastward. Had
I been at the time aware of the impor-
tant correspondence which had taken
place on the subject of the new line,
I should have proposed to direct the
attention of the District Engineer to it.
It appears from his letter that he
has never seen the line; but though
he prefers the Nunivik line on account
of the saving of distance, and length
of new road to be opened, he is —
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para 6. inclined to believe that the engineer.
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feel extremely doubtful of the good
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carriage road in the Nunivik ravine.
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tioned the work; but it is not
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testimony 1 in 25. Of the plan of
the trace we are in profound ignorance,
though that is the point of para-
mount importance; for it is no
thing to trace an easy gradient
on a steep mountain, and another
to cut a road of the requisite width
along the trace. From what Captain
Francis

Francis says of the number of turns indispensable in forming a road in the ravine I should judge that it may ^{para 3 of letter of 3rd of July 1856} turn out impossible to widen the road sufficiently for the extensive Commerce which is anticipated between the Hills and the low country; and unless it is certain beforehand that the road can be made of adequate width I believe that it would be a great mistake to undertake it at all when the necessary expense is considered. Of the expense of forming the road again we are in equal ignorance. When I suggested in my letter of the 6th of June 1857. ^{11/205} 3 1/2 lacs I was unacquainted with the opinion of Captain Francis and others of the great difficulty of the line. From what I now know I should be sorry to pledge myself to that limit or even to much more. I fear that unless the subject is more thoroughly investigated the Government may find itself embarked upon a very expensive project

project of doubtful utility.

5 Upon the whole I am much disposed to think that the best plan for present circumstances will be to endeavour to improve the present Munir Ghat to such a degree as to admit of its use by Carriages with reduced loads or increased power of traction. The lower part of the ghat is as easy probably as that of Segur. Near the summit and at other places alterations of the line are essential, and there is reason to believe are practicable. If the alignment were thus reformed, and the road were kept always smooth by a liberal maintenance allowed it is very probable that it would be as well adapted as the Segur Ghat for carriages. It would indeed be very far from an easy line of communication; but it is worthy of consideration whether a short and steep line is not upon the whole the

the line to be chosen

the best where the rest of a longer one would be in unhealthy situations. It is certain that the whole distance would usually be traversed in the shortest time on the shortest line; and if such a line were so improved as to carry carriages, provision being made for relieving the cattle from distress by lightening the loads or adding to the tractive power, while at the same time there would be a very great saving of expense by the measure, it appears to me that the result would be in every way satisfactory. It should be remembered that the Munir Ghat is already made, that difficult as it is it carries an immense traffic, that it may not improbably be made as good as the Segur Ghat on which carriages are used, and that if its surface after improvement of the alignment

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alignment were maintained in the best possible order it would then be a far better communication than the Segur Ghat has yet been.

6 I do not think that Captain Francis' new line by Sheemoggy and Natergherry requires further investigation at present, though it should not be lost sight of for it promises to be required hereafter, and to be the best line for the formation of an easy cart-road should such a work prove to be really necessary. It would be of course very easy and inexpensive, if a branch railway were now laid from any point of the South West line, to extend it to Sheemoggy, and the Sheemoggy and Natergherry Ghat may therefore be preserved for future consideration.

7. As my office and responsibility in the Department of Public

by the line by Sheemoggy

Public Works will very soon cease I
have not thought it advisable to give
any instructions to the District
Engineer with reference to the foregoing
remarks which I submit for the consi-
deration of Government, not doubting
that the important subject upon which
they are offered will be disposed of
upon its merits after proper enquiry.

8. I have not touched upon
the project referred to in para 8 of the
Order of the 19th of December 1856 No 2362
for a Railway Incline on the Kurrur
Ghat, because immediate action for
the improvement of the Communica-
tion is necessary, and the Incline -
would certainly require such an
amount of preliminary investigation
as would very greatly delay the exe-
cution of any work.

Central Office of Mr
Chepauk
26th April 1860

W. A. Smith

I have the honor to be
Your Very Obedt Servt
J. A. Bell Colonel
Chief Engineer

P. W. P. 15. a

W/1029

Proceedings of the Madras Government
Under date the 17th May 1860
Read the following
Papers.

From the Chief Engr

Submitting with abstract
figures & with ref. to the orders of Govt
of 11 April 1859 letter from the
Dist Engr of Coimbatore on the sub-
ject of the comparative merits of
the Hunnir & Shemogay & Kotergiri
paths, as lines of communication
between the Nilgherries and
the Plain

(Here enter 26 April 1860)
12729

Minute by the Hon. the Governor (Here enter 2nd May 60)

Shemogay
Kotergiri
Nilgherries

The Ch. Engr. submits
with this letter a report from
the Dist. Engr. of Coimbatore
on the comparative merits
of the Hunnir path, & of that by
Shemogay and Kotergiri,
as approached to
the Nilgherries - and states
his opinion as to the best
mode of dealing with the
plans as adopted on
the Hunnir side -
improving the communica-
tion between the hill stations
and the plains on the
Coimbatore side.

The Govt. agree
with Col. Bell in
fully
objecting
to
the line by Shemogay

Cons: 17 April 1860
23 Dec 58
15 July 1859
12-13

Spel-deer
sub-mitted
for this week -
one should be
at once prepared

note -
17 April 1860
23 Dec 58
15 July 1859
12-13

Q. 971/1860 (State)
Proc of Govt 25 May
1860

from
the Chief Engineer
of the Nilgherries
dated 26th
Dec 1859
17 April 1860
15 July 1859
12-13

Submitting with
abstract figures and with
reference to the orders of
Govt of 11 April 1859
letter from the
Dist Engr of Coimbatore on the
subject of the comparative
merits of the
Hunnir and
Shemogay & Kotergiri
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17 April 1860
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12-13

Submitting with
abstract figures and with
reference to the orders of
Govt of 11 April 1859
letter from the
Dist Engr of Coimbatore on the
subject of the comparative
merits of the
Hunnir and
Shemogay & Kotergiri
paths, as lines of communication
between the
Nilgherries and
the Plain

I think the same view as before
well. The Hunnir path is the
shortest line; it is the line which
has been already made; and it
may be much improved by rectifying
the road and deepening the road through
the other lower line may be improved
but at present we should attend to what
is immediately necessary and immediately
practicable. For a road of this
importance and peculiar character, however,
I should like to see a well established line
specifically selected to act under the general
directions of the District Engineer - no
more than the present employment,
however respectable, of a sufficient high order
road which is now being made
by the Govt. and
the local
authorities

The former is the shortest line; it is the line which has been already made; and it may be much improved by rectifying the trace and keeping the road smooth. The other longer line may be wanted hereafter; but at present attention must be given to what is immediately necessary and immediately practicable.

Col. Bell further advises that the new trace ^{up this valley} begun some years ago under Capt. Francis and recently completed by Mr. Fraser, should not be adopted, on the ground that, in practice and for the kind of traffic using the short, the inconvenience of

It is many miles longer from ^{or} Delatamand ^{into the low country} by that line than by the Hume's ~~Chait~~ even with a reduced gradient; and the line would be very much more expensive to make, and would be much longer in execution. Further it would pass some miles from Wellington, to which a branch road would be necessary.

3. Colonel Bell's remarks and suggestions as to the mode of dealing with the Hume's ~~Chait~~ require more careful consideration.

Para. 5.

111a
of the longer ascent would more than counterbalance the advantage of the more easy gradient, especially as it would involve a halt within fewer days. He proposes, therefore, that the operations should be confined to improving the present line, by reducing the gradient where it is steepest and making and maintaining a thoroughly good and smooth surface.
4. The Committee considers that there is much weight in the views and arguments stated by Col. Bell. And besides these, there are the further considerations that a road, such as he advocates, might be made at much less cost than the longer descent and in a much shorter time.
Before

Before passing a final
^{however} order, the Genl is
desirous to have the
deliberate judgment
of a competent officer,
after inspecting the
locality and making
special inquiries on
the points involved in
the present question. The
Ch. Engr. will be requested
to take the necessary
steps to obtain such a
report as soon as

possible. The rapid advancement of the railway to
5. ~~as soon as~~ the time shall have
been resolved on, it
is the desire of Govt that
the execution of the work
should be entrusted to
an active and efficient
officer to be selected for
this particular duty and
free from other avocations.

completion makes it
important that no
avoidable delay should
take place in com-
mencing operations.

10 Copies. Chief Engineer
" " B. of C. for information

[Signature]

12/5/18
4871
28th May 1871

Special Circulation

Copy in a Letter to England
of 24th April/61 No. 42.

Public Works 1860 Dept.
Pro. of Govt. 20. May

No. 1029.

Pro. of the Madras Govt.

D^y 17th May 1860.

From Chief Eng. 26th May 60. Pro.
4th June 1860. 43. 44. }

From the Collector of Combarua
{ 1 June 60. C No. 1399. Pro.
26th May 44. 45. }

Chief Engineer to
obtain the judgment of
a Competent Officer respect-
ing the Lummier Ghat on
road, after inspecting the
locality and making
special inquiries on certain
points.

No. 104 at 106.

1861 - 2

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