

(1) Number of pages 18(2) Date of repair 17. 3. 39(3) Initials of the Referencer [Signature]

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Despatches to England.

Desp. G.O. No.	<u>74</u>	Press Mis.
Dated	<u>19-11-1860.</u>	

Not to be folded or roughly handled

[Signature]

PUBLIC WORKS DEPARTMENT.

No. 74 of 1860.

TO THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

RIGHT HONORABLE SIR,

8th October 1860, Nos. 116, 117.

13th " " " 206, 207.

9th November " " No. 2,324. 157, 170

10 " " " 265, 266

1. We have the honor to forward for your information the papers noted in the margin, relating to the operations of the Irrigation Company in the Kurnool District.

2. In consequence of certain reports which were prevalent respecting these operations, we deemed it necessary to call upon our Consulting Engineer to state whether any cause had arisen to lead to the stoppage of the works, or to any material alteration in the scheme originally submitted as the plan of the works to be carried out by the Company. Captain Rundall replied to this reference on the 11th October to the effect that the Company's Chief Engineer had informed him on his arrival at Kurnool that, owing to the setting in of the heavy rains, the laborers had begun to disperse, and that on the 26th August the number had diminished from nearly 10,000 to 6,600; and that early in September Colonel Cotton had thought it expedient to reduce the working parties to about 1,200, partly because Cholera had appeared amongst them, and partly because the continued heavy rains prevented a full day's work being obtained from the daily laborers, who formed the majority of those employed and thus enhanced the cost of the work; and that as Contractors were coming forward, he thought it better to allow the ordinary laborers to return home to cultivate their lands, as they were anxious to do, especially as he wished to make some modification in the plan of the works at the head of the Canal for Irrigation. Captain Rundall deferred making any report on the proposed changes here referred to, until he should have investigated the Chief Engineer's plan.

3. We now solicit your attention to Captain Rundall's letters of the 15th and 24th October and the Minutes thereon by the Members of Government recorded in our Proceedings of the 9th instant, No. 2,324. In his letter of the 15th October Captain Rundall reported on the change which the Company's Chief Engineer thought it necessary to make in the plan of the works at Kurnool. With the second letter he laid before us copy of a report on the same subject addressed to the Board of Directors of the Company by their Chief Engineer. The nature of that change was as follows.

4. The original design of the works at Kurnool, as stated in Colonel H. Cotton's letter of the 21st December 1859, submitted with Captain Rundall's letter of the 9th March 1860 and approved by us, was an Anicut six miles below Kurnool, and a channel of large capacity taken off at the southern extremity to cross the water-shed of the Tumbaddra and Kundár by a deep cutting near Mettakunda; the probable length of the channel to this point was stated to be about thirty miles. We learnt however from Captain Rundall's Report now under notice, that the detailed surveys having been completed, it was found that the water-shed of the Hindri and the Bowanasay, which was to be turned by the Canal, maintains a high level much further to the north than the Trigonometrical Survey Map indicated; and that consequently the length of the Canal between the two points above mentioned, as well as that of the deep cutting, would be greatly increased, and its execution much more expensive than was expected.

5. This had led to a modification of the design. It was now proposed to have another Anicut eighteen miles above Kurnool, at a place called Sunkasala. The Canal thence led off to cross the Hindri by an aqueduct forty feet high, and to reach the water-shed of the Kundár at so high a level that very little cutting would be necessary. It was proposed still to have an Anicut at Kurnool, though of reduced height, in order to maintain the navigation between the

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Tumbuddra and the Kistna; and that navigation was to be connected with the main irrigation channel, by means of a Canal of small dimensions with locks. An incidental advantage of this new plan was stated to be that it would supply irrigation for about 75,000 acres of land between the channel and the Tumbuddra before reaching the Kundār water-shed, while the original plan would only have watered 20,000 acres in that region.

6. The cost of the new plan, as compared with Colonel Cotton's estimate for the original design, was given by Captain Rundall as follows :—

The original plan.

Estimated cost of the Anicut at Kurnool, and Canal and works	Rs.
to the Kundār water-shed	10,00,000
Twenty miles of the Canal of the lower Bellary project, super-	
seded by the Canal from Sunkasala at 6,000 Rs. a mile...	1,20,000
Total...	11,20,000

The present plan.

Canal from Sunkasala to the Kundār water-shed, with the	
Hindri aqueduct	8,42,500
Masonry works on the Canal...	1,20,000
Two Anicuts and Head works	3,55,000
Total...	13,17,500

Thus the excess of the estimate for the present plan over that of the original plan was about two lacks of Rupees.

7. In reviewing the report, we recorded our opinion that we had ground to find fault with Captain Rundall regarding the mode in which he sent up these papers, and also to express dissatisfaction with him as respects the works already sanctioned and partially executed. As to the modification of the design, we informed Captain Rundall that we are disposed to regard it as judicious, but that before we could deal with the question we must have before us a report from the Company's Chief Engineer of all that had occurred and of the alterations in the Kurnool portion of the project which he now suggested, as also explanation of the reasons which had led him to change the site of the Anicut from the one originally decided upon several miles below Kurnool to that one where operations had been actually commenced.

8. We deemed one part of the revised plan to be of doubtful propriety, viz., the proposal still to have an Anicut at Kurnool and to connect the Kistna navigation with the main southern Canal at that point. Our reasons for this view are given in paragraph 9 of our Proceedings, to which we would refer you for full particulars in respect of this and other matters.

We have the honor to be,

Right Honorable Sir,

Your most obedient humble Servants,

PORT SAINT GEORGE,
19th November 1860.

Edw. T. Dunn.

FORT SAINT GEORGE.
PUBLIC WORKS DEPARTMENT.

Letter to the Right Honorable
the Secretary of State for India,
Dated 19th November,
No. 74 of 1860.

Forwarding papers relating to the operations of the Irrigation Company in the Kurnool District.

P.W.D.

No 74 of 1860.

To the Right Honorable
the Secretary of State for India

Right Hon Sir,

I have the honor
to forward for your
information the pa-
pers noted in the
margin relating to
the operations of the
Irrigation Company
in the Kurnool
District.

In consequence
of certain reports which
were

8th Oct 760 Nos 116-117
13th " " 206-207
9th November " 232
16th " " 265

Wm

were prevalent nec-
essitating these opera-
tions, we deemed it
necessary to call up
our Consulting
Engineer to state
whether any cause
had arisen to lead
to the stoppage of the
works, ~~referred to us~~
~~as in progress of~~
~~completion~~, or to any mate-
rial alteration in the
scheme originally sub-
mitted as the plan
of the works to be car-
ried out by the Company.
Capt. Russell replied to
this reference on the 11th
Oct. to the effect that
the Company's Chief
Eng^r had informed

him on his arrival at
Harrool that, owing to the
setting in of the heavy
rains the laborers had
begun to disperse, and
that on the 26th Aug^t the
number had diminished
from nearly 10,000 to 6,000,
and that early in Sept^r
Col. Cotton had thought
it expedient to reduce
the working parties to
about 1,200, partly because
Cholera had appeared
amongst them, and partly
because the continued
heavy rains prevented
a full day's work being
obtained from the daily
laborers, who formed the
majority of those em-
ployed and thus reduc-
ed the cost of the work.

~~feeding, and the order -~~
~~my laborer's man, please~~

~~it was better to allow them~~
~~to do so, more especially~~
~~as he was, I am sure, of~~

ation in the plan of

head of the Canal for

~~ed, and was anxious to~~

~~The subject~~ - Cap - Minale
The Sur

deferred making a

Engineers, ^{planning} ~~professionals~~, and as

ing fully into the subject, he

~~of Governor issued that order was~~

~~General Service~~
~~C. I. Dept. Instructions~~

the first two miles of the

~~negation which will not require~~

~~breadth as originally contained~~

3. Attention to Captain

15th and 24th October and

Members of Government.
 before our proceedings.

of the 1st



In his letter of the 15th October
Captain Muddall reported
~~to us a preliminary change~~ ^{on the}
~~which the Co. had thought it~~
~~which it had been found~~
necessary to make in the
plan of the works at
Kurnool. With the second
letter he ^{laid} before us
copy of a report on the
same subject addressed
to the Board of Directors
of the Company by their
Chief Engineer. The nature
of that change was as follows.
4. — The ^{original} design of the
works ^{at Kurnool} as stated in Colonel
H. Cotton's letter of the 21st
December 1859, submitted
with Captain Muddall's
letter of the 9th March 1860
and approved by us, was
an Anicut six miles below
Kurnool, and a channel
of large capacity taken off
at the southern extremity
to crop the water shed
of

of the Kurnool river, and
Kurnool by a deep cutting
near Mettakunder; the
probable length of the
channel to this point
was stated to be about
thirty miles. ^{The learnt however from}
^{Captain} Muddall's Report now under
~~Muddall now reports~~
notice, ^{that} the detailed survey
having been completed,
it ~~is~~ ^{was} found that the
water-shed of the Kurnool
and the Pournasay,
which was to be turned
by the Canal, maintains
a high level much further
to the north than the
Trigonometrical Survey
Maps indicated; and
that consequently the
length of the Canal
between the ^{two} points
above mentioned, as well
as

as that of the deep cutting,
would be greatly increased,
and its execution much
more expensive than was
expected.

5. This led to a
modification of the design.

It ^{was} now proposed to have
another ^{sixteen} ~~to~~ miles
above Kurnool, at a place
called Sunkavala. The
Canal thence led off to
cross the Hindri by an
aqueduct forty feet high,
and to reach the water
shed of the Hindri at
so high a level that very
little cutting ^{would} be
necessary. It ^{was} ~~is~~ proposed
still to have an ~~am~~ ^{am} ~~in~~ ⁱⁿ ~~at~~ ^{at} ~~the~~ ^{the} ~~place~~ ^{place}
at Kurnool, though of
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and the Hindri; and that
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small dimensions with
locks. An incidental
advantage of this new
plan was stated to be
that it would supply irri-
gation for about 75,000
acres of land between the
channel and the Tum-
buddra before reaching
the Hindri watershed,
while the original plan
would only have watered
20,000 acres in that
region.

6. The cost of the
new plan as compared
with General Cotton's
Estimate for the original
design

design was given by Captain
Kinnell is follows.

The original plan.

Estimated cost of the Canal at Kinnell,
and Canal and works to the Kinnell
water shed ————— 10,00,000

Twenty miles of the Canal of the
lower Bellary project, super-
seded by the Canal from Luv.

Excavate at 600 Rs. a mile 12,00,000

Total — 11,20,000

The present plan

Canal from Lunkasale

to the Kinnell water shed,

with the Kinnell aqueduct 8,42,500

Masonry works on the Canal 1,20,000

Two sluices and Head works 3,55,000

Total 13,17,500

Thus the excess of the
estimate for the present
plan over that of the
original plan was about
two lakhs of Rupees.

In reviewing the report, we recorded our opinion
that we have had ground
to find fault with
Captain

Captain Kinnell regarding
the mode in which
he sent up these papers,
and that we have also
had much ground for
disposition with
him as respects the
works already sanctioned
and partially executed.
As to the modification
of the design we in-
formed Captain Kinnell
that we are disposed
to regard it as judicious,
but that before we could
deal with the question
we must have before
us a report from the
Company's Chief Engineer
of all that had occurred
and of the alterations
in the Kinnell portion
of the project which
he now suggested.

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the reasons which led him
Chief Engineer to change
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the one originally decided
upon several miles below
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Southern Canal at that
point. Our reasons for
this view are given in
para 9 of our proceedings
to which we would refer
you for full particulars
in respect of this and
other matters.

[Signature]

Notes - The further
papers respecting the
selection of a project
will be reported in
- meeting in con-
- ference Dec 1st 1860
Fort George
19th November 1860.

To the Home Govt
Regarding Irrigation
Company's works

P.W. Dept.

No 74.

Letter to the Right Honorable
the Secretary of State for India
Dated 19th November 1860

Origl. to Steamers Bengal via Marseilles
Copy D^o D^o via Southampton
27th November 1860
27th Nov 1860

Copied to Govt of Ind. 28 Nov 1860 No 24

Forwarding papers relating
to the operations of the Irrigation
Company in the Ferozabad
District.

Reply to No 6 of 2nd Feb 61