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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1803	Press Mis.
448-49	
Dated 30th July 1872	

Not to be folded or roughly handled

Read the following papers —

No 483 From the Acting Superintending Engineer, 1st Division, to the Acting Chief Engineer for Irrigation and Joint Secretary to Government, Public Works Department, dated Dowlaishweram, 20th May 1872, No 678

I HAVE the honour to forward, for your consideration and orders, a sketch map of the Nuggaram Island, together with a survey map and levels of the drainages lately executed, showing the practicability of the scheme I brought to your notice when you lately inspected the locality.

1 Sketch Map
1 Survey do despatched by banghy

2 I have marked on the sketch map the line of canal I would propose to cut to join these drainages, and thus afford at once facilities of water communication to the greater part of the Amalapore Taluq with the Western Delta, a very large trade already exists between these parts of the country, and the cost of transport is very considerably enhanced by having to go partly by land and partly by water, whereas by the proposed canal, which will be tidal and so available throughout the year, the communication is made complete from the port of Bendamoor-lunkah to Nursapore and thence to Mogultoore or to the inland markets of the district; as these drainages, moreover, carry off almost all the waste water from the irrigation and the rainfall of the Nuggaram Island, I am of opinion very little or no artificial supply of water will ever be required to keep them open.

3. The cut required to be made is five miles in length, and if its mean width is made six yards and depth two yards, the cost of excavation, I estimate, will be Rupees 10,000; and this item might be provided from "Repairs, Agricultural," with the approval and sanction of Government. It is, however, necessary to pass an irrigation channel by a syphon sluice to the lands which this canal will cut off from their supply. I have not attempted to estimate for this work until I see the nature of the soil in which we must lay the syphon; its cost, as compared with the irrigated area to be supplied, under any circumstance, cannot be great, as I find from the levels there will be no difficulty in getting ahead of at least 3 feet on the syphon.

No. 119

No. 483A Note by the Acting Chief Engineer for Irrigation.

In paragraph 17 of my Note, No. 87 of the 3rd June, on the Central Godavery Delta Project, I stated that inland tidal

1 Letter
1 Survey.

navigation could probably be provided between the Vasista and Vanitiyam branches of the Godavery, by connecting and improving the two channels which receive the drainage of the Nuggaram Island.

2. With his letter No 678, dated 20th May 1872, the Superintending Engineer of the 1st Division submits a survey, with levels and sections, of the two

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30th July 1872.*

drainage channels adverted to, and suggests that they should be connected by a cutting about five miles long, and estimates the probable cost of the work at Rupees 10,000.

3 There will be no difficulty in connecting these channels and rendering them navigable, and if the two branches of the Godavery are thus connected by means of a navigable canal, the Amalapore Taluq, which forms the larger portion of the Central Delta, will be connected with Nursapore, the Oopecturu, and eventually with Masulipatam by a short direct line, and the navigation by the western bank canal instead of being connected with the Vasista Godavery near Sakinatapilly, as suggested in paragraph 8 of my Note No. 87, may be carried down to, and be connected with, the new line of navigation it is now proposed to construct between the two branches of the Godavery which enclose and form the Nuggaram Island. The bed of the canal should be 4 feet below the level of tidal low water as there will be a tendency to the deposit of silt, especially where the tidal waters meet.

4 It is probable that the new canal and the extension of the western bank canal to meet it will be more costly than the arrangements originally proposed in my No 87, but the advantages (1) of connecting the Amalapore Taluq with Nursapore, etc., by a short direct line, (2) of improving the drainage of the Nuggaram Island, and (3) of protecting a large area from submersion by salt water and thus rendering it culturable, will more than compensate for the trifling additional outlay of some 15,000 or 20,000 Rupees. I would, therefore, suggest that the Superintending Engineer should be called upon to mature the project for connecting the Vanitiyam and Vasista Godavery by means of a navigable canal as proposed, and for rendering navigable the extension of the western bank canal below the 38½ mile, instead of connecting that canal with the Vasista Godavery as proposed in paragraph 8 of my Note No. 87, an approximate estimate being prepared for the latter scheme to admit of a comparison being made between the cost of the two schemes.

5 The cost of forming the proposed tidal canal between the Vanitiyam and Vasista branches of the Godavery with subsidiary works necessary for the passage of water for irrigation on the south of the canal and for improving the drainage of the Nuggaram Island will probably be double the amount of Rupees 10,000, estimated by the Superintending Engineer, for the connecting link between the existing channels will cross four irrigation channels; it may be possible to connect the latter and to pass them under the proposed canal by a single syphon sluice, and to distribute the water on the south side of the canal. Care must be taken that the syphon sluice is of sufficient capacity to supply not only all the lands now irrigated on the south of the canal, but also those which are irrigable and are likely to be brought under wet cultivation when the water supply is improved by the completion of the Central Delta project.

6 From an examination of the levels submitted by the Superintending Engineer, it appears that for a distance of about twelve miles along the stream which falls into the Vanitiyam Godavery the country is for the most part below the level of tidal high water, a bank must be formed along the north side of this channel to protect the land from submersion by salt water, while the drainage must be pro-

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30th July 1872.*

vided for by sluices with self-acting shutters placed in the bank, which would be formed by spoil taken from the canal, and should be at least 4 feet above tidal high water.

7. From the Vasista Godavery the country falls eastwards, and is above tidal high water for a distance of about three miles, here no embanking will be necessary, and the passage of drainage into the canal may be provided for by small channels without any sluices.

OOTACAMUND,
4th July 1872.

(Signed) R F. OAKES, Captain, R.E.,
Acting Chief Engineer for Irrigation.

No 489.

ORDER THEREON, 29th July 1872, No. 1,803.

IRRIGATION, No 26.

THE Government approve of the suggestion that a tidal canal should be formed between the Vanitiyam and

Vasista branches of the Godavery by connecting and improving the two channels which receive the drainage of the Nuggaram Island

2 The Superintending Engineer will provide, in the revised estimate called for in G. O., No 1,786, dated 26th July 1872, for the Central Delta project, for the works now proposed, submitting at the same time an alternative estimate of the cost of carrying out the suggestions made by the Acting Chief Engineer for Irrigation in paragraph 8 of his Note No 87, on which the G. O. above quoted was passed

(True Extract.)

Captain, R E.,
Acting Joint Secretary to Government.

To the Acting Superintending Engineer, 1st Division
" " Chief Engineer for Irrigation

Exd S T. Austin.

MEMORANDUM.

Requested for reference the under mentioned papers

*Montezuma, founded
with this office No 117-4
July-72 - see 84. 30 July 72
No 1803*

OFFICE OF THE CHIEF
INCH FOR IRRIGATION,
P. W. Department,
To *422* 1872

The Registrar of the

J. W. Hamilton

Head Clerk.

Mr. Secretariat

STRICTLY CONFIDENTIAL
SUPERINTENDING ENGINEER'S OFFICE, 1st DIVISION
DOWLAISHAHUM, 20th May, 1872.

No

From

Superintending Engineer

1st Division

To

Chief Engineer for Irrigation

MADRAS

SIR,

I have the honor to forward, in your
consideration and order, a Sketch Map of the
Suggarum island, together with a Survey Map,
and Levels of the drainage lately executed,
showing the practicability of the Scheme proposed
to your notice when you lately inspected the

locality -

2. I have marked on the sketch map, the line of Canal I would propose to cut to join these drainages, and thus afford the convenience & facilities of water communication to the greater part of the Amulapore taluk with the Western Delta - a very large trade already exists between these parts of the Country, and the cost of transport is very considerably enhanced

✓

by having to go partly by land, and partly
by water, whereas by the proposed canal,
which will be tidal and so available
throughout the year, the communication is
made complete from the port of Bunder
= Limkat to Amraur and thence to Mogallina
on to the inland Markets of the District;
as these drains moreover carry off almost
all the waste water from the irrigation, and
the rainfall of the Nuggurum alone, & me
of which is very little, or no artificial, supply & so
of water will ever be required to keep them
open -

3. The cut required to be made is 8 miles
in length, and if its mean width is made 6
yards and depth 2 yards, the cost of excavation
I estimate, will be Rupees 10,000, and this
sum might be provided from Revenue & =
= Agriculture with the approval and sanction
of Government - It is an unnecessary
to pass a irrigation canal by a siphon

lines to the lands which this Canal will
cut off from their supply - I have not attempted
to estimate for this work until I see the nature
of the soil in which we must lay the siphon;
its cost, as compared with the irrigated
area to be supplied, under any circumstances,
cannot be great, as I find from the lands there
will be no difficulty in getting a head of
at least 3 feet at the siphon.

I am, the honourable
Sir

Yours Faithfully
J. H. Clerk

Westminster 10th Feb 1860

As Superintendent Engineer R. H. D.

N^o 119

Note by the Ag Chf Engineer for Irrigation
Letter N^o 648 of 20th May 1872 from
Superintending Engineer 1st Division

In para 17 of my Note N^o 87 of the 3rd June
on the Central Godavari Delta Project
I stated that inland tidal navigation
could probably be provided between the Va-
sista and Vantigam Branches of the
Godavari by connecting & improving the
channels which receive the drainage of
the Vaggaram Island.

With his Letter N^o 648 dated 20th
May 1872 the Superintending Engineer of the
1st Division submits a Survey with levels
& sections of the two drainage channels ad-
verted to & suggests that they should be con-
nected by a cutting about 5 miles long
and estimates the probable cost of the work
at Rs 10000

3 There will be no difficulty in connect-
ing these channels and rendering them
navigable

Encls: 2
1 Letter
1 Survey

1872

1872

From

The Superintending Engineer,
1st Division
N^o 364

The Chief Engineer for Irrigation,
N^o 119
N^o 364

Dated 20th May 1872
Received 28th May 1872

NO. 678

INCLOSURE

Subject.

inwards for consideration and
order a sketch-map of the above
scheme & plan to be submitted
with a survey map of lands
of the drainage area & a plan
of the scheme showing the
of the scheme as such as no
longer to be taken as such
to be taken as such as no
to be taken as such as no

To the Secy to Govt
10th June 1872

nameable & if the two branches of the Godavari are thus connected by means of a navigable Canal; the Amalapuram taluq which forms the larger portion of the Central Delta will be connected with Narsapore the Coopersham and eventually with Maunabo by a short direct line, & the navigation by the Western bank Canal instead of being connected with the Vasista Godavari near Bakmatapilly as suggested in para 8 of my Note No. 87 may be carried down to and be connected with the new line of navigation it is now proposed to construct between the 2 branches of the Godavari which enclose & form the Nuggaram Island. The bed of the Canal should be 4 feet below the level of Tidal L.W. as there will be a tendency to the deposit of Silt, especially, where the tidal waters meet.

4 It is probable that the new Canal and the extension of the Western bank Canal to meet it will be more costly than the arrangements originally proposed in my No. 87 but the advantages (1) of connecting the Amalapuram

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Amalapuram taluq with Narsapore &c by a short direct line (2) of improving the drainage of the Nuggaram Island & (3) of protecting a large area from submersion by salt water & thus rendering it cultivable, will more than compensate for the trifling additional outlay of some 15 or 20000 Rupees. I would therefore suggest that the Superintending Engineer should be called upon to mature the Project for connecting the Vantiyam & Vasista Godavari by means of a navigable Canal as proposed & for rendering navigable the extension of the Western bank Canal below the 38 1/2 mile instead of connecting that Canal with the Vasista Godavari as proposed in para 8 of my Note No. 87. An approximate estimate being prepared for the latter scheme to admit of a comparison being made between the cost of the 2 schemes.

5. The cost of forming the proposed tidal Canal between the Vantiyam & Vasista branches of the Godavari with subsidiary works necessary for the passage of water for Irrigation on the south of the canal and for improving

improving the drainage of the Chuggaram Island will probably be double the amount of Rs 10000 estimated by the Superintending Engineer, for the connecting link between the existing channels will cross 4 irrigation channels; it may be possible to connect the latter & to pass them under the proposed Canal by a single Siphon Sluice & to distribute the water on the South side of the Canal. Care must be taken that the Siphon Sluice is of sufficient capacity to supply, not only, all the lands now irrigated on the south of the Canal, but also, those which are irrigable & are likely to be brought under wet cultivation when the water supply is improved by the completion of the Central Delta Project.

6. From an examination of the levels submitted by the Superintending Engineer it appears that for a distance of about 12 miles along the stream which falls into the Vantiyam Godavari, the country is for the most part, below the level of

5
of tidal H.W. - a bank must be formed along the North side of this channel to protect the land from submersion by salt water, while the drainage must be provided for by sluices with self acting shutters placed in the bank which would be formed by spoil taken from the Canal and should be at least 4 feet above tidal H.W.

7. From the Vantiyam Godavari the country falls eastwards & is above tidal H.W. for a distance of about 3 miles, here no embankment will be necessary & the passage of drainage into the Canal may be provided for by small channels without any sluices.

Obtained 3
4th July 1872
W. F. Bates Captain R.E.
Ag. Chief Engineer for Irrigation
The Secretary to Govt
M. S.

P. M. Dept

N: 1803.

Proceedings of the Madras Government

Under date the 30th July 1872

Read the following

From the acting Chief Engineer
for Irrigation

(Resenter No 119 of 4th July 1872)

The Government
approve of the suggestion
of the acting Chief Engineer
for Irrigation that a
tidal Canal should be
formed between the
Vanitijam and Tasiota
branches of the Godavery
by connecting and im-
proving the two chan-
nels which receive the
drainage of the Nuggaram
Island.

The Superintending
Engineer will provide
in

P. M. 1872
The Secretary to Govt
of Madras
for Irrigation
No 119 of 4th July 1872

21st 119

Dated 4th July 1872
No 119 of 4th July 1872

Enclosed for the
acting Chief Engineer
for Irrigation
a letter from the
Superintendent of the
Vanitijam branch
of the Godavery
stating that they
are situated by a
cutline about
5 miles long
the first side of
the works at the
mouth of the
Godavery

in the revised estimate
called for in L.O. No.
dated for the
Central Delta Project,
for the work proposed
submitting of
by the Acting Chief
for the same type
Engineering for irrigation
to an alternative
view of the double
estimate of the
cost of carrying
from the 38' level of
the Western Bank Canal
with Ch. Survey for irrigation in Jan 8
prepared, of the note
No. 87 on which L.O. No.
dated was
passed.

G.M. 1/9

To
The Super Engineer 1st Div
" Asst Chief Engr for Irrig

Op. 3537.

Govt. of Madras.

PUBLIC WORKS. ✓

The Dy. Superintending Engineer
1st. Division

Dated

Recd

Vol 2

G. O. D. July 1872. N. 1803

Nos. 41488/1/1/1

Tidal Canal. The suggestion
of ~~constructing~~ ^{forming} a tidal
canal between Pami-
tigan and Paccika. Branch
of the Subavery by con-
necting and improving
the two channels which
receive the drainage of the
Kuzgarum Island,
approach, and Subavery.
Furnished with instructions
on the subject.