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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	2776	Press	<i>Original</i>
B.P. No.		Mis.	
Dated	17-10-	4876	
		195	

Not to be folded or roughly handled

SLs No. 1423
R.O. 259
W. 14
Comptroller

Note by the Chief Engineer for Irrigation

Encls. 20 Locanada and Loringa junction Canal.

Am. L. D. 24 July 1869
No. 2159
P.W. 3 August 1869
No. 2541

This junction canal to run from the Locanada Canal above the lower lock to the Loringa Canal above the Munjaia lock was apparently first suggested by the late Major Sykes as a means of connecting the Qunigudura salt pans with the water communications of the Delta. Government in the R. D. concurred in the views expressed by Captain Sykes which were supported by Captain Treacher as to the value of the Canal in connection with the salt trade and as a general communication.

2. In Am. L. 9th May 1870, No. 1215 a scheme for connecting the salt pans with the Locanada Canal and with the Loringa Canal also was reviewed, the estimated cost being

Canal from Colorado Canal to the
 salt pans ————— Rupees 60,187.
 do from Holangy river to
 Beringa Canal. ————— 50,813
 1,11,000

This project was generally approved,
 but its sanction was deferred for
 want of funds.

3. In 1873 a project for improving the supply of water to, and the communication with the salt pans was reviewed and not considered desirable. Its cost was Rupees 11340 and there would have been a constantly recurring outlay. It was also noticed that if the more effective project of a junction canal was unnecessary in the interests of irrigation, it would be desirable that it should be undertaken jointly from local and Imperial funds.

4. Lt. Colonel Fischer, the then District Engineer, did not deal entirely factually with the questions referred

to him for investigation, and finally his scheme, which was estimated to cost Rupees 1,20,000, was sent back for revision, with instructions, and it has now been re-submitted in a shape which will it is hoped admit of the project being carried out and of the incidence of its cost being determined.

22.14 G.D. 17th March 1876.

15. The total amount of the revised estimate is —————
 For works ————— Rupees 1,89,450
 Establishment at 25 per. cents ————— 47,362
 Tools & Plant — 8 — do ————— 15,156 2,51,968
 Capitalized abatement of land revenue — 73,520
 Leave & pension allowances $\frac{1}{4}$ of establishment 11,842 25,362
 2,77,330

9 $\frac{1}{8}$ miles. or at the rate of Rupees 30,390 a mile.
 Lt. Campbell shows, para 10, that the cost of distribution works with the junction canal will be about Rupees 13,800 and that without it their cost would be about Rupees 16,200, consequently the saving would

be only Rs. 2400.

The salt trade and the local traffic are virtually the only interests concerned therefore in the construction of this canal. That it would be as convenient as a line of communication generally is certain, though as it would connect two canals which are only 9 miles apart, and between which there is already communication on the one side by the Mundapetta Canal and at the lower end by the Perungudi river, it would be quite possible to over-estimate this convenience. As regards this point the local Land Board can however form its own opinion. The chief value of the canal, is far as the part connecting the Perungudi salt pans with Locanada salt is the influence which it might be expected to exercise upon the salt sales. The revenue derived

from these salt pans fluctuates between 4 and 5 lakhs. The cost of the works so far viz to $3\frac{1}{2}$ miles on the junction canal with the lock into the Cholangy river has not been distinctly shown in the estimate submitted by the District Engineer, but a sufficiently close approximation can be made.

Compensation for land (share of Rs 8280)	Rs. 3065
Kotapilly road bridge	8800
Cattle crossing Bhavaram	110
Bhavaram aqueduct	11920
Lock at head of Cholangy river	21600
Widening and deepening river	19720
Canal earthworks (share of Rs 45390)	17500
Total	Rs. 82795

The interest on this sum at 5 per cent is Rs. 4140 while if, to the cost of works for connecting the salt pans with the Locanada canal, the other charges amounting to about 45 per cent on works or Rs. 37253 be added, the total outlay involved

It will be 1,20,050 and the interest, say,
6000 Rupees a year. If improved
communication with the salt pans
be of any value at all, it would
seem that its effect on the salt
revenue will be far in excess
of the interest on the expenditure
required. The above figures may
need some modification for the
land compensation and canal
earthworks, which have been
calculated on the mileage, and the
correct amounts will probably
be somewhat less.

The canal is necessarily an
expensive one as it crosses the
drainage of the country, and
this drainage owing to the level
of the canal has all to be passed
under the latter. Perhaps the
Bhavaram drainage might be
passed partly under and partly
over the canal as the water surface
there in the latter is not much above

Ms 259 para 21

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ground level. Mr. Lambell is of
opinion that the provision made
for cross drainage, which in each
case has been approximately deter-
mined by calculating the maximum
flood discharge by Sykes formula
with a coefficient of 400, is larger
than is necessary, and he thinks a
coefficient of 200 would give more
correct results. This opinion is
founded on his experience, but
although he is aware that definite
information is much required as well
as much desired, for a determination
of fairly accurate coefficients for
all localities or any locality for
use with Sykes and Dickens formulae,
he has not referred to any facts
or shown on what circumstances
his experience is based. He is ac-
quainted with the Lammamoor Canal
and the Kistna Eluru Canal, both
of which have been extensively breached
by every heavy fall of rain, but he

has drawn no deductions therefrom
as to the waterways which have or
have not proved adequate to dis-
charge the drainage of given areas
of country. In the Godavari Delta
moreover the drains have for some
2 or 3 years been gauged, and though
the rainfall has been very light
perhaps some deductions may rea-
sonably be made from the facts
ascertained. Lt. Campbell has brought
forward no definite information
whatever, and his supposition that
a coefficient of 200 would be more
correct means that the maximum
quantity of drainage would amount
to 1.92 inches in the 24 hours from
the area of 56 square miles, which
drains across this canal. All that
next he said is that on the face of
the recorded falls of rain so vastly
in excess of this quantity, it would
be very rash to accept Lt. Campbell's
experience without some support from

facts. As Lt. Campbell is aware
cross drainage works were formerly
constructed without any reference
whatever to the drainage they had
to deal with, and the results were
not satisfactory. Since then certain
arrangements have been prescribed
both for cross and intra Delta drainage,
until it can be shown that in
particular cases, or generally, a
modification of these arrangements
would be proper; and officers generally
have been invited to aid in determin-
ing as correctly as possible the
discharge from given areas small
and large. Opinions based on
practically nothing are useless. If
Lt. Campbell will show what the
actual discharge in any drain from
any recorded rainfall has been, what
the maximum recorded rainfall
has been, what discharge he would
deduce from the latter and what
arrangements would necessarily follow,

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[Illegible handwritten text]

The Secretary to Govt. M.S.

فصل دوم

2000

The above is a list of the
 names of the persons who
 have been appointed to the
 various committees of the
 Board of Directors of the
 City of New York, for the
 year 1895.

P.W.D. No. 216-42

10057E

No. 7525

From

The Chief Engineer for Irrigation.

To

The Secy. & Commr.
M.S.

Dated

Received

Enclosures. 20

Cocanada & Coniye Junction
Canal - Godavery District
- Not submitting, with remarks,
estimate for the - from Cooroor
to Munjair lock.

No 246

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

Read the following :-

Note by Mr. [unclear] dated 4/6 Oct. 1876.
for [unclear]

The estimate for
a junction canal to
unite the Cocanada
and Coniye canals,
and the Pennungudurn
salt pans with them by
a lock into the Cholangy
river and the improve-
ment of the latter, is
approved and the pro-
ject will, in connection
with the orders as per
margin, be referred to
the Revenue Department
for consideration of the
probable effects on the
salt revenue of that

No. 2541 - 3rd August 1869
• 1215 - 9th May 1870
• 2558 - 20th Decr. 1873
• 801 - 29th March 1876

part of the scheme which will bring the salt pans into direct communication with the Locanada Canal. The estimated cost of the whole project is for works Rupees 1,89,450, and that of the part from the Locanada Canal to the Pholangy river including the improvement of the latter Rupees 82,795.

2. Inclusive of all charges the cost of the scheme will be Rupees 2,72,330, and of that part in which the Salt Revenue is more particularly interested Rupees 1,20,050 and to cover the bare interest on the latter sum an increase of revenue by salt sales of Rupees 6000 annually will be necessary.

	2,72,330
Imperial	<u>1,20,050</u>
	1,52,280
deduct Irrigation & distribution works	13,860
Charges	<u>6,240</u>
	20,100
Balance	<u>1,32,180</u>

3. It has been shown that the interest of irrigation in the canal is very small and the construction of the canal from the Pholangy river to the Joriniga Canal will, if it is to be undertaken, have to be provided for from local funds. The Board of Revenue will be requested to determine in communication with the local Fund Board whether the sum of about Rupees 1,37,180 required can be made available, and if so to settle the allotment to be proposed for 1877-78.

4. Pending the report by the Revenue Department on the financial aspect of the scheme as regards salt revenue, provision

to the extent of Rupees 40,000.
will be made in the Budget
of 1877-78 under Imperial against
the estimate of Rupees 82,796
for the Canal from the
Locanada Canal to the
salt pans.

2. The District Engineer
will report what part of the
land compensation and of
the general provision for
earthworks of the canal,
appertains to the portion
up to the head of the
branch to the salt pans,
and consequently the totals
of the estimates belonging
to Imperial and Local
Funds respectively.

00000
60000
60000

120000

My 7/10

246/47

D. E. Goddard
C. E. J. with 9 Orig Encls
Rev. Secy. & put up papers
B. of Rev. & 10 plans
- put up papers
En. Plans

Dr. 9-11-76

11-11-11