

(1) Number of pages_____

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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	3373-74	Press
B.P. No.		Mis.---
Dated	12-12-	195- ⁴⁸⁷⁶

Not to be folded or roughly handled

187

*Proceedings of the Madras Government, Public Works Department,
12th December 1876. No. 3,374.*

Read the following :—

No. 274 W.

No. 269. *Note by the Chief Engineer for Irrigation.*

THE estimate submitted by the Superintending Engineer, Godavery, for the improvement of the left embankment of the Vasista Godavery from the head of the Central Delta to the Gunnaram aqueduct amounts to Rupees 34,400. The distance is 29 miles, and the arrangements proposed are as follow :—

Top of bank to be 4 feet above the flood level of 1853.

Top width of bank 9 feet.

Slopes $1\frac{1}{2}$ to 1.

2. The estimate was transmitted in May last, and its disposal was deferred, pending the result of references which were made for further information regarding flood levels, &c., in connection with the estimates for the left and right flood banks of the Gowtami Godavery. It is believed that the inquiries made for these and the Polaram island embankments make it tolerably certain that there is no room for material error, and that the embankments as designed will be safe.

3. There is an existing embankment throughout the 29 miles covered by this estimate, and the cost of this embankment has been included in the expenditure on the Delta System, which latter has therefore contributed its full share to the cost of the protection afforded. The tract of country interested is that included between the embankments and the Amalapore canal down to the Gunnaram aqueduct on the former and Amalapore on the latter. The area is a little over 100 square miles. The aqueduct carries the canal (west bank) across the Vainatayam branch of the Godavery, which also is partially embanked; but before estimates can be submitted for completing the embankments in this section, the future treatment of the branch, which is liable to heavy erosions from sets, will need to be determined.

4. The longitudinal and cross sections show clearly the urgent need of reformation. The present embankments are in many places considerably below the level of the fresh of 1873, and the fresh of 1875 found its way into this Delta at several places. No estimate of the work to be done in each mile has been furnished, neither has it been stated how much of the land to be protected is Government and how much Zemindary; but, as the Zemindars cannot, it has been decided, be required to contribute, the absence of information on this point is not of much practical importance. Of the 29 miles of embankment $13\frac{1}{2}$ run alongside the West Bank canal, and, so far as may be practicable, soil for raising the flood bank should be obtained by cutting the canal to its intended section, and the value of this part of the work will be chargeable to the canal.

5. The following is a classified abstract of the estimate :—

ORDINARY AGRICULTURAL.

River Embankments.

Left bank of Vasista Godavery above Gunnaram aqueduct.						RS.
B Compensation for land	...	...	...	...	...	2,550
L Earthworks	...	...	...	...	...	31,850
Total, Works						34,400
Establishment, 25 per cent.	...	...	...	...	...	8,600
Tools and Plant	...	...	...	...	...	...
						43,000*

FORT ST. GEORGE,
29th November 1876.

To the Secretary to Government, Public Works Department.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

*Proceedings of the Madras Government, Public Works Department,
12th December 1876. No. 3,374.*

ABSTRACT ESTIMATE.

CENTRAL DELTA DIVISION, GODAVERY.

Head of Service.—Irrigation.

Fund.—Ordinary Agricultural.

Class.—Original Works.

Main-head.—River embankments.

Work.—Raising embankment of Vasista Godavery left bank from head of Central Delta to Gunnaram aqueduct.

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
341,378½	Cubic yards of earthwork.	RS. A. P. 0 1 4	C. yd.	RS. A. P. 28,448 2 8	RS. A. P.
341,378½	Ramming	0 0 1	...	1,778 0 2	
	Compensation for pit crops.	...	...	2,550 0 0	
	Contingencies...	...	...	...	32,776 2 10 1,623 13 2
	Total...	...	...	...	34,400 0 0

17th March 1876.

(Signed) J. ELLIS, Sub-Engineer,
In charge Central Delta Division.

No. 270. ORDER THEREON, 12th December 1876, No. 3,373.

IRRIGATION, No. 26.
Account.

THE estimate of Rupees 34,400 for improving the flood embankments on the left bank of the Vasista Godavery from the head of the Central Delta to the Gunnaram aqueduct, a distance of 29 miles, is sanctioned for entry in the Budget of 1877-78.

2. This sanction has been registered as No. 211 I. of 1876-77, as follows:—

Irrigation.

Ordinary Agricultural.

River embankments.

Name of Work.—Embankment, left bank of Vasista Godavery above Gunnaram aqueduct.

Amount of Estimate.—Rupees 34,400.

3. These Proceedings will be forwarded for the consideration of the Government of India in continuation of those as per margin, with reference to paragraphs 8 and 11 of letter, No. 2,448, dated 13th September 1876.

No. 2,575, 27th September 1876.

.. 3,311, 7th December ..

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

*Proceedings of the Madras Government, Public Works Department,
12th December 1876. No. 3,374.*

No. 271. (DOCKET No. 3,374, dated 12th December 1876.)

COPY of the above forwarded to the Government of India.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

Exd. E. C. Shunker.

Spare Copies

OFFICE OF CHIEF ENGINEER FOR IRRIGATION, 31

Fort St. George, 29 November 1876.

No. 274-W.

Note by the Chief Engineer for Irrigation.

Encls. 4.

The estimate submitted by the Superintending Engineer, Godavery, for the improvement of the left embankment of the Varieto Godavery from the head of the Central Delta to the Gummaram Aqueduct amounts to Rupees 34,400. The distance is 29 miles and the arrangements proposed are as follow.

Top of bank to be 4 feet above the flood level of 1853.

Top width of bank 9 feet
Slopes $1\frac{1}{2}$ to 1.

2. The estimate was transmitted in May last, and its disposal was deferred pending the result of references which were made for further information regarding flood levels &c in connection with the estimates for the left and right flood banks of the Gowhani Godavery. It is believed that the inquiries made for these and the Polaveram island

embankments

embankments make it tolerably certain that there is no room for material error and that the embankments as designed will be safe.

3. There is an existing embankment throughout the 29 miles covered by this estimate, and the cost of this embankment has been included in the expenditure on the delta system, which latter has therefore contributed its full share to the cost of the protection afforded. The tract of country interested is that included between the embankments and the Amalapur Canal down to the Gunnaram Aqueduct on the former, and Amalapur on the latter. The area is a little over 100 square miles. The Aqueduct carries the Canal (West bank) across the Vainateyam branch of the Godavery, which also is partially embanked but before estimates can be submitted for completing the embankments in this section, the future treatment of the branch, which is liable to heavy erosions

from sets, will need to be determined. 1872
4. The longitudinal and cross sections show clearly the urgent need of reformation. The present embankments are in many places considerably below the level of the fresh of 1873, and the fresh of 1875 found its way into his delta at several places. No estimate of the work to be done in each mile has been furnished, neither has it been stated how much of the land to be protected is Government and how much Zemindari, but as the Zemindars cannot, it has been decided, be required to contribute, the absence of information on this point is not of much practical importance. of the 29 miles of embankment $13\frac{1}{2}$ run alongside the west bank Canal, and so far as may be practicable soil for raising the flood bank should be obtained by cutting the Canal to its intended section, and the value of this part of the work will be chargeable to the Canal.

5. The following is a classified Abstract of the estimate:
Ordinary Agricultural
River embankments
Left bank of Vainate Godavery above
Gunnaram Aqueduct

B. Compensation for land ———— Rs. 2350
 1. Earthworks ———— 31350
 Total works. 34400
 Establishment 25 per cent. 8600
 Tools & Plant ————
13,000

Form No. 19.

M.D.
 21376
 8718

From

The Chief Engineer for Irrigation,

To

The Secretary to Government,
 Public Works Department.

Dated 29 Nov.
 Despatched 2nd Dec. } 1876.
 Received

ENCLOSURES 4

No. 274-W.

Subject.

Flood Embankments— Central
 Delta.— Note submitting for sanction
 estimate for Rs. 34,400 for improving
 the — on the left bank of the Vairata
 Godavery from the head of the Central
 Delta to the Gunnavaram Aqueduct.

CD 27-9-76 ho 2575
 24-10-76 2840

No 269

9th Dec 5-12-76

574
 No 3373 Public Works Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

UNDER date the 12 Dec/76
 Read the following:—

From the Chief Engineer for Irrigation (H.E. Ho 274 W 29 Nov/76)

The estimate of Rs 34,400 for
 improving the flood embank-
 ments on the left bank of
 the Vairata Godavery from
 the head of the Central Delta
 to the Gunnavaram Aqueduct
 a distance of 29 miles is sanctioned
 for entry in the Budget of
 1877-78

2. This sanction has been regis-
 tered as No. I of 1876/77 as follows

Irrigation
 Ordinary Agricultural
 River embankments
 Name of work— Embankment,
 left bank of Vairata Godavery
 above Gunnavaram Aqueduct
 Amount of estimate Rs 34,400

3. These Proceedings will be forwarded for the consideration of the Government of India in continuation of those as per margin, with reference to paras 8 & 11 of letter No 2448 dated 13 Sept 1876.

by 30/11

No 33749 of 27 Sept
Copy of the above forwarded to the Government of India.

No 2575 - 27 September/76
3311 - 7 Dec/76.

These are the proceedings in connection with the above letter.

G. R. Godavery.
Collector of Godavery.
Chief Eng. for Irrig. & Examiners, Public Works & Accounts.
Revenue Dept.

11-2-13 II ✓

Ch. 8743.

Govt. of 1876 Madras.

PUBLIC WORKS.

To the D. E. Godavery

Dated

Issued

Recd.

Encl.

G. O. 12th Dec 1876, No. 2373
3374

Nos. 269 - 279
271

Flood embankments on left bank of Vasista Godavery from head of Central Delta to the Gummavaram Aqueduct
Estimate for improving the ———— Sanctioned.

Forwarding copy of Pro: Sanctioning the Estimate for improving the flood embankments on the left bank of Vasista Godavery from head of Central Delta to the Gummavaram

Agreed to.