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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

DEPARTMENT

G.O. No. B.P. No:	6087	Press. Mis.
Dated	10-10-1877	197 .

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162

Archives I-10,006-19-4-79.

6081

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

27th September 1877, No. 349 I.

Irrigation.
Account.

Read the following paper:—

No. 133. Endorsement of the Chief Engineer for Irrigation, dated Fort St. George, 21st September 1877, No. 189 I.

From Major J. BEATTY, R.E., Officiating Superintending Engineer, Godavery, to the Chief Engineer for Irrigation, dated Camp at Dowlaishweram, 28th July 1877, No. 1,393.

I HAVE the honor to submit herewith an estimate for raising the left bank of the Vasista-Godavery from the Gannaram aqueduct to Antravedi, a distance of $24\frac{1}{2}$ miles.

One estimate.

2. The estimate is made up as follows—

	RS.
Earthwork	25,239
Compensation for land	3,296
Establishment at 25 per cent.	7,135
Total	35,670

3. Mr. Ellis calculates that the portion of this estimate that would also form part of the West Bank canal improvements amounts to Rupees 14,600. In his letter accompanying the estimate he has shown this for each mile.

From Mr. J. W. H. ELLIS, Sub-Engineer in charge Central Delta Division, Godavery, to Major J. BEATTY, R.E., Officiating Superintending Engineer, Godavery, dated Gunnaram, 10th July 1877, No. 93.

I HEREBY beg to forward an estimate for raising and strengthening the river embankment, Vasista branch, in the Nagaram island from the Gannaram aqueduct at 27th mile to the 52nd mile stone near Antravedi. This estimate provides for a margin of 4 feet above the *maximum

* The fresh of 1875 was by no means a maximum at the flood of July 1875, with a top width of 9 feet and slopes $1\frac{1}{2}$ to 1. The total length of embankment is $24\frac{1}{2}$ miles, or very nearly $24\frac{1}{2}$ miles, and average surface fall for the whole

(Signed) J. M.

distance per mile is .72 feet as observed during the fresh referred to and which is shown on the longitudinal section. This fresh, although it rose 22.5 feet at the Gannaram aqueduct, at the 28th mile point it stood 21.17 feet, due no doubt to the numerous islands and to the Koder elbow; from here it showed the fall of .72 feet regularly down to Antravedi where it arrived at 3.911, or 4 feet that of the level of H.W. springs. The West Bank canal runs along the river embankment which forms its right bank from the aqueduct to the 38 $\frac{1}{2}$ mile; here the embankment leaves the canal which it subsequently joins below the Pidateppa aqueduct 42 $\frac{1}{2}$ mile, and again forms the right bank to it to the 45 $\frac{1}{2}$ mile. From this point it again leaves the canal for a distance of 1 mile, joining below Sakinatipilly running with the tail end of the channel to the 52nd mile where it finally terminates at the mouth of a small drain tributary to the Vasista. The total length of canal which may therefore be improved by clearing and widening the embankment work is 19 $\frac{1}{2}$ miles to an amount of Rupees 14,600. This shows the saving that can be effected from the earthwork to the West Bank canal as given in the completion project. The left bank to the Vasista protects the whole Nagaram island from inundation. The total area of this island is 133.1 square miles, of which 35,000 acres may be roughly estimated under annual wet cultivation. The island contains 53 villages, all of which are Government property, with a population of 71,111; has numerous cocoanut, cane and other plantations. It is the most valuable portion of the Godavery Deltas, rich in soil and fertility

2. The estimate now sent up amounts to Rupees 34,270 under the following items:—

	RS.
Earthwork	24,779
Compensation for land	3,296
Establishment at 25 per cent.	6,195
Total	34,270

3. The following statement gives the actual amount for each mile which could be deducted from this estimate as belonging to canal improvements. The total of which comes to Rs. 14,600.

Earthwork.	RS.	A.	P.	RS.	A.	P.
27½ to 28th mile	305	4	10			
28th to 29th "	110	6	2			
29th to 30th "	374	6	11			
30th to 31st "	922	0	2			
31st to 32nd "	725	1	0			
32nd to 33rd "	794	5	2			
33rd to 34th "	1,056	3	4			
34th to 35th "	1,004	4	1			
35th to 36th "	811	11	5			
36th to 37th "	1,144	15	1			
37th to 38th "	1,166	9	5			
38th to 38½ "	956	9	11			
38½ to 39th "	338	8	4			
39th to 40th "	829	2	2			
40th to 41st "	478	5	2			
41st to 42nd "	69	9	2			
42nd to 43rd "	327	7	0			
43rd to 44th "	264	0	9			
44th to 45th "	406	14	5			
45th to 46th "	705	9	4			
46th to 47th "	471	13	4			
47th to 48th "	549	12	0			
48th to 49th "						
49th to 50th "						
50th to 51st "						
51st to 52nd "						
Total Earthwork	13,892	15	2			
Contingencies	707	0	10			
Total	14,600	0	0			

Establishment item excluded as completion project allowed nothing for it.

4. In my former report a sum of Rupees 24,950 was incorrectly given as appertaining to canal improvements, which sum it was said could be deducted from this estimate. Rs. 24,950 were arrived at as follows:—

	RS.
Total of estimate	34,270
Deduct works to diversion of river embankment from canal —	RS.
In miles 38½ to 39	450
In " 39 to 40	2,550
In " 40 to 41	2,615
In " 41 to 42	1,610
In " 42 to 42½	1,415
In " 42½ to 43	680
	9,320
Balance of estimate for such portion of the embankment as adjoins the canal	24,950

5. This 24,950 includes earthwork, cattle-crossings, compensation for land, contingencies, and entire establishment.

6. The Vainateyam embankments are under preparation, and will be submitted soon after completion, probably before the end of the year.

SUBMITTED for the consideration of Government.

In G.O., No. 3,373, of the 12th December 1876, an estimate, amounting to Rupees 34,400, was sanctioned for the reformation of the left flood bank of the Vasista-Godavery from the head of the delta to the Gunnaram aqueduct, 27 miles. One Estimate. Report.

2. The estimate now submitted is for the continuation of the same embankment for a distance of 24½ miles, and amounts to or compensation for land

	RS.	RS.
Earthworks	3,296	
	25,239	
Establishment		28,535
Tools and Plant		7,135
Total		35,670

Of the amount for works, viz., Rupees 28,535, Rupees 14,600, it is reported, will be chargeable to the Gunnaram canal. The remainder should be debited to Ordinary Agricultural, River Embankments, Original Works. It is recommended that sanction be given to the whole estimate under Ordinary Agricultural. The adjustment of expenditure to be made so soon as the completion estimates for the Central Delta are sanctioned. They will be submitted to Government very shortly.

3. It will be noticed that the Divisional Officer reports that the considerable fresh of 1875 did not raise the water surface at Antravedi, the terminus of the flood bank, above H. W. springs. It is considered therefore that at this point a margin of 2½ feet will be sufficient to obviate all risk of the submergence of the flood bank by a maximum fresh, and the surface slope of the bank should be increased to the extent of three-fourths of an inch a mile for the last 24 miles, so as to reduce the margin at the lower end.

(Signed) JOHN MULLINS, Colonel, R.E.,
Chief Engineer for Irrigation.

No. 134. ORDER THEREON, 27th September 1877, No. 349 I.

THE estimate of Rupees 28,535 for the reformation of the left flood bank of the Vasista-Godavery from the Gunnaram aqueduct to the terminus, 27 to 52 miles, is sanctioned under Ordinary Agricultural, River Embankments, Original Works. This sanction has been registered as No. 216 I of 1877-78.

2. It is observed that Rupees 14,600 of the cost of the reformation will be chargeable to the Gunnaram canal, and should be so adjusted in due course.

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, 13th September 1876.

(True Exact.)

Philipson
Major, R.E.,
Acting Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, Godavery.
" Collector of Godavery.
" Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" Revenue Department.

Exd. A. Grubert.
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Govt. of 1877 Madras.

PUBLIC WORKS.

Recd. Oct 9th

Ms. 6081
Comm^d to the
Board of Revenue

10: Oct 17