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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.	<i>6449</i>	Press.
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Dated	<i>30.11.1877</i>	197 .

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

20th November 1877, No. 509-I.

Irrigation.
Account.

Read the following paper :—

No. 70. From Captain J. PENNYCUICK, R.E., District Engineer, North Arcot, to the Chief Engineer for Irrigation, dated Camp at Raneepett, 7th March 1876, No. 4,116.

I HAVE the honor to forward herewith the estimates noted in the margin for

Section 1.	
Detailed estimates 5.	
Abstract do. 4.	
Plans 3.	
Constructing division sluice for the	rs.
Chuckramullur channel	5,300
Putting up screw gear shutters to the	
head sluice for the Palar Anicut	
southern channel	5,300
Do. vertical shutters to the Doosy and	
Kalaway division sluices	1,440
Converting the Chuckramullur head	
sluice and putting vertical shutters	
to its vents	930
Providing screw gearing shutters to the	
head sluices of Mahindravady and	
Cauverypauk channels	9,500

improvements to the head works at the south end of the Palar anicut, revised and corrected in accordance with your memorandum No. 728 of 7th July last.

2. It is found more convenient to raise the piers of the head sluices slightly above the minimum level mentioned in paragraph 2 of your memorandum under reply and to work the shutters from platform ones on the outside, as it is not considered desirable to diminish the width of the roadway by throwing back the parapet.

3. Paragraph 3 of memorandum. The cost of altering the present sand sluice has been omitted altogether, the work having been carried out in connection with the anicut restoration; the line of discharge marked by you on the plan would involve the removal of the road tunnel, which it is considered desirable to avoid if possible; the spoil excavated from the new channel will be formed into a flood bank, and no separate provision is therefore made for the latter.

4. The estimates for the new division sluice for the Chuckramullur channel and for the improvements to the existing division sluices have been altered in accordance with paragraphs 4 and 5 of the memorandum; I quite agree with you that the expensive arrangements originally proposed were quite unnecessary. The estimates now merely provide for new vertical shutters, which are found to be far more convenient to work than any kind without regular screw gearing, and for slight improvements to the division walls.

5. On the north bank all that is wanted is screw gearing shutters to the main head sluices similar to those provided for the south bank, the dimensions are in all respects identical with those of the latter, and the cost will be directly proportional to the number of vents, and it has not therefore been considered necessary to prepare another set of drawings and detailed estimates, but a simple estimate at the rate of Rupees 330 per vent has been added.

6. I request that the plans and estimates may be returned when no longer required.

No. 233 I.

No. 70-A.

Note by the Chief Engineer for Irrigation.

ESTIMATES for improving the regulation and distribution arrangements of the Palar Anicut System were submitted last year by the District Engineer as follows:—

	RS.
(1). Opening a head and constructing a head sluice for the Chuckramullur channel on the left bank of the south main channel ...	5,300
(2). Providing improved shutters to head sluice of south main channel...	5,300
(3). Altering the shutters of the Doosy and Kalaway channel regulators ...	1,440
(4). Converting present head sluice of Chuckramullur channel into a sand or under sluice of the anicut ...	930
(5). Providing improved shutters to the head sluice Cauverypauk channel 18 vents ...	6,330
(6). Providing improved shutters to the head sluice of the Mahindravady channel 9 vents ...	3,170

The Cauverypauk and Mahindravady channels have their heads at the left or north flank of the anicut, and as Mr. Rundall has prepared estimates for the reformation of the channels on this side of the river, the necessary improvements to the regulating works will be included in his estimates.

2. The Chuckramullur channel is at present supplied by a sluice in the body of the anicut itself, an arrangement which is objectionable, for the anicut crest was raised to admit of it, and should be lowered again, while the dividing bank thrown up to form the head of the channel is liable to be submerged and breached. Moreover to form the head sluice a sand or under sluice was diverted from its proper function, and thereby the supply of the south main channel has been injuriously affected. It has been ascertained however that the proposals for improvements have been based on very imperfect data, and the District Engineer has been instructed how to obtain reliable data and to mature a more satisfactory project; so existing arrangements will have to be retained until the scheme has been revised.

3. The present shutters of the south main channel head sluice revolve on a vertical spindle and they are unmanageable, 1st because the sand accumulations effectually block them, and, 2ndly, because the spindle reaches to a platform only 7 feet above sill level. It is intended to provide sliding gates worked by screws.

Plan No. 3.

It is unnecessary to place the screw gear at the high level shown. The lift will be only 5 feet and maximum flood level is 14½ feet above sill, and the under side of the gear beams may be placed at that level.

Another point is that the sluice is greatly blocked by sand which is no doubt due to its low level, and probably the main channel would be much more efficient were the sill raised 2 feet which would make it still 5 feet below crest of anicut, which would ensure a full supply whenever there might be enough water in the river. This alteration and the restoration of the under sluices will do much to prevent the main channel being filled up with sand and will save much expense in clearances.

Plan No. 4.

4. The alteration of the shutters of the regulators at the bifurcation of the Doosy and Kalaway channels is not recommended for sanction. There is not much regulation to be done except when the supply is scanty and then the present arrangements can be easily managed.

Plan No. 2.

5. The restoration of the under sluice or the reconversion of the present head sluice of the Chuckramullur channel to its proper use is important. The crest of the anicut should be restored also to its proper level. The baulk shutters will require two or probably three holes in each. This part of the work must be postponed until the Chuckramullur channel arrangements have been decided on.

6. The estimate now recommended for sanction and entry in the budget of 1878-79 is that numbered two above, viz.:—

Providing improved shutters to head sluice of South Main Channel, Rs. 5,300.
The classification is—

PALAR ANICUT SYSTEM.

Capital Ordinary.

2. Main canals and branches.

South Main Channel.

D Regulators—Improving head sluice.

Amount of Estimate.—Rupees 5,300.

FORT ST. GEORGE,
12th November 1877.

(Signed) P. MONTGOMERIE, Major, R.E.,
Ag. Dy. Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.

To the Joint Secretary to Government, Public Works Department, Irrigation Branch.

No. 71. ORDER THEREON, 20th November 1877, No. 509 I.

THE estimate of Rupees 5,300 for improvements to the head sluice of the South Main Channel, Palar Anicut System, is sanctioned for entry in the budget of 1878-79.

2. The District Engineer, North Arcot, should mature as soon as possible on proper data a scheme for supplying the Chuckramullur channel from the Main or Doosy channel, as until this is done the under sluice in the anicut cannot be reverted to its proper work.

3. This sanction has been registered as No. 259 I of 1877-78.

(True Extract.)

P. Montgomerie

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

To the District Engineer, North Arcot.

Collector of do.

To Mr. Rundall.

To the Chief Engineer for Irrigation.

Examiner of Public Works Accounts.

Revenue Department.

Exd. E. C. Shunker.

1/4 Spare Copies

Revenue Department
No 4969

IRRIGATION.
ACCOUNT.

Govt. of 1877 Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,

NORTH ARCOT.

&c., &c., &c.

Dated November 20th.

Issued

29 - do

Encl.

G. O., 20th November 1877, No. 509 I.

NOVEMBER.

Nos. 70-71.

South Main Channel, Palar Anicut System,
North Arcot District.—Sanctions with re-
marks the estimate of Rupees 5,800 for
improvements to the head sluice of the—

Comm. to the
Board of Revenue

30. Nov. 77

W

2248 g Revenue 10.12.77