

- (1) Number of pages _____
 (2) Date of repair _____
 (3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Public Works DEPARTMENT

G.O. No. 1536	(2) Press
B.P. No. —	— Mis. —
Dated 20-6-	1876

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
20th June 1876. No. 1,536.*

Read the following:—

No. 67 W.

Note by the Chief Engineer for Irrigation.

No. 343.

THE following estimates from the No. 3 or Chingleput Range are forwarded by the Superintending Engineer, Chingleput, with his letters marginally noted:—
No. 4,677, dated 28th February 1876.
" 451, " 13th May 1876.

Taluk.	Village.	Work.	Amount.
Chingleput ...	Govinda Medu...	S. No. 301 V. Tank ...	RS. 765
Coujeveram ...	Padur ...	S. No. 302 V. Tank ...	532

2. The financial and hydraulic details of the Irrigation works concerned are exhibited in the following statement:—

I.—Financial Details.

Name of Work.	Ayaat Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	OUTLAY			
					During the previous 4 years.	PROPOSED		
						Capital.	Revenue.	Average Annual Proportion of Charges to Revenue.
Govinda Medu Tank ...	ACRES. 166	RS. 311	RS. 400	RS. 495	RS. Nil.	RS. ...	RS. 765	RS. 33.2
Padur Tank ...	56	412	441	565	Nil.	...	532	24.1

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BUND.		Surplus discharged at M.T.L. per Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F.T.L.	Above M.T.L.		
		SQ. M.	C. FT.	C. FT.	FT.	FT.	FT.	FT.	NO.
Govinda Medu Tank	...	2	893	...	E 220	220	3.50	1.50	1,393.7
	...	0.539	870	...	E 200	200	5.00	3.00	950.3
	...				C 24	11.5	3.75	1.00	349.8
Padur Tank	...				W 24	24	4.25	1.50	367.7
									Not stated.

NOTE.—The proposed dimensions of escapes and heights of bunds are printed in large type, the existing dimensions in small type. The following abbreviations are used:—C.—Canal with dam stones. W.—Weir with flush crest. E.—Escape at ground-level. B.—Bund of tank.

3. The following is a summary of the work proposed to be carried out in each case:—

Govinda Medu Tank.—Raising and repairing the bund, and forming an escape planted with grass, and reconstructing an irrigation sluice.

Padur Tank.—Raising and repairing the bund, repairing two irrigation sluices, planting grass, repairing and converting the calingulah into a weir.

4. The vent of the sluice to be reconstructed in the bund of the Govinda Medu tank is unnecessarily large. The head of the aperture may be lowered $1\frac{1}{2}$ feet with advantage. This will enable the plug-hole also to be placed at a lower level, thus increasing its discharge and enabling it to be used for a longer time.

5. The arrangement of the plug-holes of the sluices of the Padur tank is apparently incorrectly shown on the sections, and this should be seen to before the work of reconstruction is carried out. The rear wall and wings may be much reduced if the bund be placed as shown by the dotted lines, and if this be impracticable, the sluice tunnel should be lengthened 12 feet, and then a low wall and wings will suffice. The design manifestly does not satisfy the conditions of the site. The Superintending Engineer should not have passed on a plan so drawn. The Range Officer says that the crest of the surplus weir is 1 foot above proper full tank level, and apparently he has come to this conclusion on the ground that the tank at the reduced level will hold more than enough water for the cultivation. The discharge shown is equivalent to 25 inches of rainfall drainage in twenty-four hours, and it is thought that the tank will be quite safe if the crest be lowered 6 inches. It is intended to close the sluice vents in the weir, but, unless there be some adequate reason for so doing, it may be as well to retain them.

6. The Range Officer has supplied a survey of the catchment basin of the tank and has contoured the tank bed. The calculated content which has also been noted should have been made out by calculating the arrears described by the contours at each level and finding the content of the section cut off by the plane of each contour. Apparently the arrears of the cross sections have been taken and multiplied by the horizontal distances between them. The data afforded by the contours and survey will be useful, and it is satisfactory to notice that the Range Officer has taken the pains to carry out the investigation.

7. The estimates are recommended for sanction.

8. The following statement shows the proposed distribution of the outlay recommended for sanction, to the debit of the several heads of account involved :—

Name of Tank.	Items of Estimate.	FUND.			
		Capital, Ordinary.	REVENUE. Extensions and Improvements.	Repairs.	Total for each Tank, &c.
Govinda Medu Tank	Raising and repairing the bund, and forming an escape planted with grass. Reconstructing an irrigation sluice	Rs.	Rs.	Rs.	Rs.
		...	...	470	...
	Raising and repairing the bund, planting grass, repairing the two irrigation sluices	...	...	295	765
Padur Tank	Repairing and converting the calingulah into a weir...	...	...	532	532

(Signed)

A. DEC. SCOTT, Major, R.E.,
Deputy Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.

OOTACAMUND,
7th June 1876.

To the Secretary to Government, Public Works Department.

No. 344. ORDER THEREON, 20th June 1876, No. 1,536.

IRRIGATION, No. 23-AAA

Account.

No. 67 W., dated 7th June 1876.

THE following estimates for Irrigation Works in the No. 3 or Chingleput Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted, are sanctioned :—

Irrigation.

Name of Work.	Item of Estimate.	Fund.	Amount.	Irrigation Registry No.
Govinda Medu Tank...	Raising and repairing the bund, and forming an escape planted with grass. Reconstructing an irrigation sluice	Ordinary Agricultural Repairs.	Rs. 470	1 } 50 I.
		Do. do.	295	2 } 51 I.
Padur Tank	Raising and repairing the bund, planting grass, repairing the two irrigation sluices, repairing and converting the calingulah into a weir.	Do. do.	532	

2. These sanctions are registered as shown above.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt., P.W.D.

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

Exd. A. Grubert.
Spare Copies

5

No. 67-W. *Chitcamund 7th June 1876.*

Note by the Chief Engineer for Irrigation.

No. *4677*

Dated *28 Feb* 1876.

Rs. 451 of.

13th May 1876.

The following Estimates from the *N. 3rd Chingleput* Range are forwarded by the *Superintending Engineer Chingleput* with his letter marginally noted:—

Enclos 9.

Taluq.	Village.	Work.	Rs.	Amount.
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Chingleput: Govinda Medu. S. N. 231 V. Tank. -- 765 --

Conjeveram. Padur. S. N. 302 V. Tank. -- 532 --

2. The Financial and Hydraulic details of the Irrigation works concerned are exhibited in the following statement:—

I.—Financial Details.

Name of Work.	Ayacut Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	During the previous 4 years.	OUTLAY.		
						Proposed.		
						Capital.	Revenue.	Average annual proportion of Charges to Revenue.
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Govinda Medu Tank-3</i>	<i>166</i>	<i>348</i>	<i>400</i>	<i>496</i>	<i>nil</i>	<i>765</i>	<i>38.2</i>	
<i>Padur Tank</i>	<i>56</i>	<i>412</i>	<i>441</i>	<i>565</i>	<i>nil</i>	<i>532</i>	<i>24.1</i>	

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	Maximum Supply.		Length of Escape.		Average Height of Bund.		Surplus discharged at M. T. L. per Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F. T. L.	Above M. T. L.		
Sq. M.	C. ft.	C. ft.	Ft.	Ft.	Ft.	Ft.	C. ft.	No.	
Govinda Medu Tank.	2	893	"	E 220	220	3.50	1.50	13.50	} 2 mil
				E 200	200	5.00	3.00	9.00	
Padur Tank.	2538	370	"	K 24	11.5	3.75	1.00	34.5	} 2 mil
				11.24	24	4.2	1.50	37	

Note.—The proposed dimensions of escapes and heights of bund are entered in red. The existing dimensions in black. The following abbreviations are used:—K.—Kalingulah with dam stones. W.—Weir with flush crest. E.—Escape at ground level. B.—Bund of tank.

3. The following is a summary of the work proposed to be carried out in each case—:

Govinda Medu Tank. Raising and repairing the bund, and forming an escape planted with grass, and reconstructing an irrigation sluice.

Padur Tank. Raising and repairing the bund, repairing 2 irrigation sluices, planting grass, repairing and converting the Kalingulah into a weir.

4. The vent of the sluice to be reconstructed in the bund of the Govinda Medu Tank is unnecessarily large. The head of the aperture may be lowered $1\frac{1}{2}$ feet with advantage. This will enable the plug hole also to be placed at a lower level, thus increasing its discharge and enabling it to be used for a longer time.

5. The arrangement of the plug holes of the sluices of the Padur Tank is apparently incorrectly shown in the sections and this should be seen to before the work of reconstruction is carried out. The read wall and wings may be somewhat reduced if the bund be placed as shown by the dotted lines, and if this be impracticable the sluice tunnel should be lengthened 12 feet, and then a low wall and wings

will suffice. The design manifestly does not satisfy the conditions of the site. The Superintending Engineer should not have passed on a plan so drawn. The Range Officer says that the crest of the surplus weir is 1 foot above proper full tank level, and apparently he has come to this conclusion on the ground that the tank at the reduced level will hold more than enough water for the cultivation. The discharge shown is equivalent to 25 inches of rainfall drainage in 24 hours, and it is thought that the tank will be quite safe if the crest be lowered 6 inches. It is intended to close the sluice vents in the weir, but unless there be some adequate reason for so doing, it may be as well to retain them.

6 The Range Officer has

Not for Print - Red circles in this note are to be printed in black on type - done in Nov. 2, 1911 - J. S. Smith

9
supplied a survey of the catchment basin of the tank and has contoured the tank bed. The calculated content which has also been noted should have been made out by calculating the areas described by the contours at each level and finding the content of the section cut off by the plane of each contour. Apparently the areas of the cross sections have been taken and multiplied by the horizontal distances between them. The data afforded by the contours and survey will be useful, and it is satisfactory to notice that the Range Officer has taken the pains to carry out the investigation.

7 The estimates are recommended for sanction.

8. The following statement shows the proposed distribution

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Range,
by the
Memo.

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of the outlay recommended for
a sanction, to the debit of the
several heads of account involved -

Name of Tank	Items of Estimate	Fund				Total for each Tank Rs
		Capital	Ordinary	Revenue	Repair	
Govinda Medu Tank	Raising & repairing the bund, & forming an escape planted with grasses.	"	"	470		765
	Reconstructing an irrigation sluice.	"	"	295		
Padur Tank	Raising and repair- ing the bund, planting grasses, repairing the irrigation sluices, re- pairing & converting the Kallingulak into a weir.	"	"	532	532	

Out Sett.
Major R.
by Chief Engineer for Imp.
for Chief Engr. for Imp.
The Secretary to Govt. W.D.

FORMER CASES.

No. 435 of 1876
I. 13CN

For Circulation
Issue Case.

I. E. Form No. 31.

P. W. 1876. Department
The Chief Engineer for Irrigation.

RECEIPT No.

Dated 7th June 1876.
Received by 22nd CR.

ISSUE No.

Dated 7th June 1876

LATER CASES.

No. 44CN of 1876.

Sent to Government with No.

18

Printed with G. O. No.

W. of

dated

REMINERS ISSUED.

No. 1, dated 187
" 2, "
" 3, "
" 4, "
" 5, "

No. 343

KEEP-WITHS.

Ci-13.6.76 Mta 2 of 6/76
D.R. Phet. 15 June 76

E. I. Form No. 3.

No. 67-11. P.
dated 7th June 1876.

No. 1536 of 20th June 1876

The following Estimates for Irrigation
works in the No. 30 Chingleput Range,
Chingleput District, forwarded by the
Chief Engineer for Irrigation with his Memo.
marginally noted are sanctioned:—

Irrigation

Name of Work.	Item of Estimate.	Fund.	Amount	Irrigation Registry No.
Gounda Medu Bank	Raising & re- pairing the bund, and forming an escape planted with grass.	Revenue- I.E. Grants and Repairs	470	501
	Reconstructing an irrigation sluice.	- do - do	295	502
Padur Tank	Raising & repair- ing the bund, planting grass, repairing the 2 irrigation sluices; repair- ing & converting the Kalingulak into a weir.	- do - do	532	51.1

2 These sanctions
are registered as shown
above.

S.E. Chingleput
Collection - do -
C.E. for J. with 9 Encl.
G.A.P. in A.
Revised by - 12/5/76

W. 1976

44561A

Govt. of 1876: Madras.

PUBLIC WORKS.

To

The Sup^{ty} Eng^g Changlepat

Notes

Notes

Recd

Recd

G. O. 20 June 1875. No. 1536

Nos. 343/44

Tanks - Changlepat D^o

Estimate for the
repair of certain —
sanctions of

Est^d no^o 13-7-76

420
2-4
187