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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. / ~~B.P. No.~~	1240	Press / Mis.
Dated	26 - 5 - 1876	~~196~~

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Proceedings of the Madras Government, Public Works Department, 6th May 1876.

Read the following :—

No. 3.

No. 67-A. *Note by the Chief Engineer for Irrigation.*

In September last the Executive Engineer in charge of the Kistna District transmitted an estimate, amounting to

No. 72, 20th September 1875.

Rupees 29,040, for the construction of huts for the accommodation of lock establishmer together with a statement showing the present accommodation. This estimate wa ompared with the standard arrangement for Police huts which, it is considered, is propriate for navigation establishments, and it was found that a considerable reduction of the estimate for the latter was probably feasible. Information on the subject of the navigation was likewise asked for.

No. 1,161, 5th October 1875.

2. As a result the estimate has been reduced to Rupees 20,850, the cost of the units being as follows :—

	Rs.		Rs.
Hut for Lock Superintendent	250	Head Constable	23½
Do. for do. Lascar	200	Constable	17½

The difference is not greater apparently than the rates of the Kistna and of the standard estimate for Police huts would account for, and the accommodation in the

Dated 15th December 1875.

revised plan submitted is not in excess of the requirements of moderate comfort and decency.

3. The present huts of the lock establishments are very wretched, and their renewal is unavoidable. The mortality also has been abnormal, and the miserable, squalid, dirty, and ill-drained dwellings of these men should, it is considered, be replaced by neat huts, such as are provided for the Police, for Government establishments ought not to be lodged, as at present, in a manner so opposed to the arrangements which are being introduced under considerable pressure among the urban and rural population.

4. The statement of the financial position of the navigation in the Kistna Delta

Dated 15th December 1875.

does not appear, however, to warrant an addition of some 2,000 Rupees annually to the debit side of the account, and interest with cost of up-keep would probably amount to 10 per cent. on the cost of the huts. It was intimated, in the reference

No. 1,161, 5th October.

made to the district, that there might arise a question of the propriety of reducing lock establishments, and it will be seen, in reply, that Lieutenant McN. Campbell strongly deprecates such a change. Were it at all necessary to assume that the value of the canals for navigation would at all suffer in consequence of such a reduction, that officer's opinion against it might, without much difficulty, be accepted, but it is thought that a materi[illegible]ing on establishment may be effected without inconvenience of any kind by providing only such establishment as is needed to work the lock

valves, and requiring the boat crews to assist in opening and closing the gates. At present the charge for establishment is—

	Rs.
Navigation Superintendent's pay	1,560
Lock Establishment proper	8,496
	10,056
The average cost of repairs of locks, tow-paths, &c., is	12,003
Total ...	22,059
The average revenue for five years on the other hand has been ...	8,250
And the receipts for 1876 are estimated at	8,126

so that the revenue does not amount to half the cost of maintaining navigation. It seems to be improbable that the receipts of 1876 will be as low as Lieutenant Campbell's estimate, seeing that a considerable proportion of the boats using the canals

No. 998, dated 14th April 1875.

come from the Godavery, and these have, under a recent order, to take out a Kistna license for the use of the Kistna canals. Rupees 10,000 to 12,000 would, therefore, seem to be a reasonable estimate of the revenue of the current year. However, if the lower estimate be accepted, there is all the more reason for endeavouring to secure economy of working expenses. The statement gives the total number of boats at 229, and the number of Superintendents or Goomastahs and Lascars at the locks is 108, a proportion which can hardly be deemed reasonable.

5. The following table gives the present establishment and the proposed scale :—

—	Present.			Proposed			Remarks.
	No.	Pay.	Amount.	No.	Pay.	Amount.	
EASTERN DELTA.		Rs.	Rs.		Rs.	Rs.	
MAIN CANAL.							
Head Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	7	5	35	1	6	6	
				3	5	15	
MASULIPATAM CANAL.							
Kunkypad Lock.							
Goomastah	1	15	15	1	12	12	
Lascars	6	6	36	4	6	24	
Veerunky Lock.							
Goomastah	1	15	15	1	12	12	
Lascars	6	6	36	4	6	24	
Nedamole Lock.							
Goomastah	1	15	15	1	12	12	
Lascars	6	6	36	4	6	24	

On the Masulipatam canal there is a good deal of night traffic, and two Lascars will be required to be always on duty. So four are allowed.

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—	Present.			Proposed.			Remarks.
	No.	Pay.	Amount.	No.	Pay.	Amount.	
EASTERN DELTA.— (*Concld.*)		Rs.	Rs.		Rs.	Rs.	
Aukamurru Lock.							
Goomastah	1	12	12	1	12	12	
Lascars	6	6	36	4	6	24	
Tidal Lock.							
Goomastah	1	12	12	1	12	12	
Lascars	6	6	36	4	6	24	
PULLERU.							
Paumurru Lock.							
Goomastah	1	10	10	..	...	...	There is extremely little traffic through this lock.
Head Lascar	...	...	...	1	8	8	
Lascars	3	5	15	1	6	6	
BOODEMAIR.							
Casarpilly Lock.							
Goomastah	1	10	10	...	...	...	This lock is but seldom used.
Lascars	3	5	15	1	8	8	
				1	6	6	
BUNTUMILLY CANAL.							
Kowtaram Lock.							
Goomastah	1	10	10	1	10	10	Only occasional night traffic.
Lascars	3	5	15	1	6	6	
				1	5	5	
Total, EASTERN DELTA ...	55	...	369	37	...	260	
WESTERN DELTA.							
MAIN CANAL.							
Head Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	7	5	35	1	6	6	
Do.	...	...	...	3	5	15	
NIZAMPATAM CANAL.							
Dugerala Lock.							
Goomastah	1	15	15	1	15	15	This Goomastah can look after the Commamore Canal head lock as well.
Lascars	6	5	30	1	6	6	
Do.	...	...	...	1	5	5	
Head Lascar	...	...	...	1	8	8	
Kuchipudi Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	4	5	20	1	6	6	
				1	5	5	
Jutur Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	4	5	20	1	6	6	
				1	5	5	
Nullavada Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	4	5	20	1	6	6	
				1	5	5	

	Present.			Proposed.			Remarks.
	No.	Pay.	Amount.	No.	Pay.	Amount.	
WESTERN DELTA.— (*Concld.*)		Rs.	Rs.		Rs.	Rs.	
Tidal Lock.							
Goomastah	1	10	10	1	10	10	
Lascars	4	5	20	1	6	6	
				1	5	5	
BANK CANAL.							
Head Lock.							
Goomastah	1	15	15	1	12	12	There is a head sluice as well. The traffic is small and the revised scale appears to be ample.
Lascars	7	6	42	4	6	24	
COMMAMORE CANAL.							
Head Lock.							
Goomastah ...							
Lascars	1	12	12	..	...	...	
Head Lascar	4	6	24	2	6	12	The Goomastah at Dugirala lock to exercise supervision over this lock as well.
Jagarlamudy Lock.	...	...	...	1	8	8	
Goomastah							
Lascars	1	12	12	1	12	12	
	4	6	24	2	6	12	
Total, WESTERN DELTA ...	53	...	339	32	...	229	
Total for KISTNA DELTA ...	108	...	708	69	...	489	
Difference a-month	...	...	...	..	...	219	
Do. a-year	...	...	...	...	...	2,628	

The new scale has been based upon the supposition that three men (a Goomastah and two Lascars) are sufficient to do all the work requiring trained labor at an ordinary lock. Where there is much night traffic, as on the Masulipatam canal, the number of Lascars has been doubled. Rupees 12 appears to be a sufficient rate of pay for the Goomastahs on the Masulipatam canal.

6. Should the Government approve of the above revision the estimate for hutting would be as follows:—

No huts are required at the head lock of the Eastern Delta.

Masulipatam Canal.

Pulleru ...	Huts for	5	Goomastahs	at Rs.	250	Rs. 1,250
Boodemair ...	,, ,,	20	Lascars	at ,,	200	,, 4,000
Buntumilly ...	,, ,,	2	do.	at ,,	200	,, 400
	,, ,,	2	do.	at ,,	200	,, 400
	,, ,,	1	Goomastah	...	...	,, 250
	,, ,,	2	Lascars	...	...	,, 400

Eastern Delta.

Masulipatam Canal.—(Concluded.)

Head Lock... ...	Hut for	1	Goomastah ...	Rs.	250
	Huts ,,	4	Lascars ...	,,	800
Nizampatam Canal	,, ,,	5	Goomastahs ...	,,	1,250
	,, ,,	11	Lascars ...	,,	2,200
Bank Canal.					
Head Lock ...	,, ,,	1	Goomastah ...	,,	250
	,, ,,	4	Lascars ...	,,	800
Commamore Canal.					
Head Lock ...	,, ,,	3	Lascars ...	,,	600
Jagarlamudi ...	,, ,,	1	Goomastah ...	,,	250
		2	Lascars ...	,,	400
	Total ...			,,	13,500

Western Delta.

7. When the traffic becomes developed it may be perfectly reasonable to strengthen the lock establishments, but at present there seems to be no necessity for these being on the scale of the Godavery Delta locks, where the circumstances are very different; but there also it is possible that on some of the less frequented canals some reduction would be practicable without any loss of efficiency. The statements printed in Proceedings, Madras Government, No. 2,390, 19th August 1875, give the following as the number of boats passing through locks—

	September.	October.	November.	December.	Total.	Average.
Godavery	10,989	11,007	13,630	14,063	49,689	12,422
Kistna	386	313	607	753	2,059	515

or the Kistna traffic, so far as the work to be done by lock establishments is concerned, is $\frac{1}{4}$th of that of the Godavery. The cost of establishments is on the other hand—

Godavery	Rupees 30,402
Kistna	,, 10,056

and the proposed scale would reduce the Kistna to Rupees $1,560 + 12 \times 439 = 7,428$.

8. It is not desirable to make the reduction in the Kistna navigation establishments in a summary manner. To do so would entail considerable hardships on probably a good many men who have done their work reasonably well. The Superintending Engineer should, if the Government approve of the reduction, discharge any man whom he may find to be inefficient; let the District Engineer, Godavery, know that he has certain efficient men to spare, and further reduce as vacancies occur or as other employment can be found for the surplus men.

CAMP AT VETTAVALUM, 11*th March* 1876.

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

No. 67-B. From Lieutenant-Colonel D. McN. CAMPBELL, R.E., Executive Engineer in charge of the Kistna District, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Masulipatam, 15th December 1875, No. 105.

WITH reference to your memorandum, No. 1,161, dated 5th October 1875, I have the honor to submit revised plans and estimates as per margin, for the accommodation of lock establishments in this district, prepared in accordance with the instructions contained in paragraphs 3, 4, and 5.

1 Plan of lock-sheds.
1 Estimate for Lascars' shed.
1 Do. for Goomastahs' shed.
1 General Abstract Estimate, Rs. 20,850.
1 Statement of financial results.

5 Return requested when sanctioned.

2. You will perceive from Statement A that the cost of maintaining navigation exceeds the amount of the revenue derived therefrom; but the following facts should be taken into consideration:—

1*st*.—For the three or four months that the canals are closed the navigation establishment also look after the repairs to irrigation works.

2*nd*.—That the charge for the maintenance of tow-path provides for the up-keep of lunkas and fruit trees, from which small sums are yearly realized.

3*rd*.—That the indirect returns to Government and the advantages to the community generally are very considerable.

3. It would appear that, in former days, this last circumstance was more considered than now, as some years ago the navigation revenue was considerably less* than at present; but the cost of maintenance was the same; and doubtless the subsequent increase in revenue was partly due to there being an efficient establishment, and, in my opinion, it would be a very great mistake to reduce the present establishment, as suggested in paragraph 6 of your memorandum. Even should no direct returns accrue to Government, I believe it will be found that in the Godavery District where the traffic is considerable and where the navigation canals are supposed to be such a great success that the cost of navigation exceeds the revenue.

* In 1868-69, Rs. 6,723-6-0.

4. That the lock-sheds are absolutely necessary I have already stated in my letter No. 72, dated 20th September 1875, and you perfectly agreed with me, and having now given what further information I can on the subject, I leave it to you to decide whether the work is to be carried out or not.

No. 68. ORDER THEREON, 6th May 1876, No. 1,115-A.

IRRIGATION, No. 8.
Account.

HIS GRACE the Governor in Council is of opinion that the papers submitted by the Chief Engineer for Irrigation with his note thereupon demonstrate very fully that the lock establishments of the Kistna Delta are at present maintained on a scale which the circumstances of the traffic do not make necessary, and that it is requisite to reduce the working expenses of the navigation to more reasonable dimensions; for though it may be hoped that the issue of separate licenses for this delta will add materially to the income, the deficit will continue to be large, and it will certainly be a long time before the number of boats licensed will be sufficient to balance the charges for repairs and establishment. It has been shown that the—

Expenditure on navigation is about Rs. 22,000;
Receipts from do. Rs. 8,250;

that the present cost of establishment is Rs. 10,000; and that if boats' crews be required to aid in closing and opening gates, the lock valves continuing to be exclusively managed by the lock men, about Rupees 2,600 may be saved. His Excellency is pleased to approve of this reduction, and of its being carried out in the gradual manner recommended in paragraph 8 of the Chief Engineer's note. The District Engineer will post notices at all locks intimating that, under the orders of Government, boats' crews will be expected for the future to assist the lock establishments in opening and

Proceedings of the Madras Government, Public Works Department,
6th May 1876.

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closing gates, but that the valves will be worked by the lock men. Similar printed notices should be given to the syrangs of all boats coming to Bezwada.

2. The other subject brought forward, and that which incidentally has occasioned the review of the financial condition of the Kistna navigation, is the provision of decent huts for the lock establishments. Their present dwellings are reported to be unhealthy and miserable, and not at all such as any Government establishments should be expected to occupy. It is proposed to build similar huts to those sanctioned for the Police, and the cost of hutting the sixty-four men of the revised scale who need lodgings is estimated at Rupees 13,500 or Rupees 211 per man. The subject has been carefully gone into, and recognizing the obligation of providing suitable quarters for men who must be always at their posts, the Government sanction the estimate for entry in the Budget of 1877-78. In constructing the huts due attention should be given to drainage, and after their erection the utmost cleanliness should be enforced.

IRRIGATION.
CAPITAL—ORDINARY.
(3) *Main Canals and Branches.*
I.—Navigation Works.

		Rs.
Masulipatam Canal	No. ½ I. of 1876-77	5,250
Pullery Channel	,, ½ I. of ,, ...	400
Eduru Canal	,, ½ I. of ,, ...	400
Buntumilly Canal	,, ½ I. of ,, ...	650
	Total, Eastern Delta —	6,700
Main Canal	No. ½ I. of 1876-77	1,050
Nizampatam Canal	,, ½ I. of ,, ...	3,450
Western Bank Canal	,, ½ I. of ,, ...	1,050
Commamore Canal	,, ½ I. of ,, ...	1,250
	Total, Western Delta ...	6,800
Total sanction, Kistna District, No. 4 I. of 1876-77 ...		13,500

To be carried out by the Public Works Department.

3. These Proceedings will be communicated to the District Engineer, Godavery, with a view to the consideration of the financial condition, as regards navigation expenditure and receipts, of the canals of that delta. It appears to be probable that on some of the canals the establishments will be found to be in excess of the requirements of the traffic at present or in the near future.

4. The sanction accorded in these Proceedings has been registered as shown in the margin.

(True Extract.)

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

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

Exd. S. T. Austin.

Spare Copies

No 2123.
Revenue 1876 Department

Govt. of (1876) States.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
KISTNA,
&c., &c., &c.

Dated May 64.

Issued

Rec'd 26 May

Encl.

G. O., 6th May 1876, No. 1,115-A.

MAY.
Nos. 67A 68.

Lock Establishments, Kistna District.—Passing orders on note by the Chief Engineer for Irrigation submitting plan and estimate for construction sheds for —.

Dated 196

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