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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W. DEPARTMENT

G.O. No.	1306 W	Press.
B.P. No.		Mis.
Dated	21.5.1981	197.

Not to be folded or roughly handled

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

21st May 1881, No. 1,306 W.

Buildings and Roads.
Civil Works.

No. 43. Read the following paper :—

Joint Report by the Chief Engineer and the Master Attendant on the Port of Cuddalore.

We were enabled to examine this port on the 11th April.

2. The existing mouth which is that used for the port is now about one-third of a mile south of the Gori village, which is again half a mile south of the flagstaff.

3. The sand dune on which the two latter are situated is generally well raised (the highest point being at the flagstaff some thirty feet above mean sea level) and planted.

4. While the mouth, formed chiefly by the action of the Paravanar river, has in ordinary course moved north, the limit in this direction by local information appears to be near the place where an unsuccessful attempt was made some years ago to open and fix a permanent passage to the sea opposite the custom-house, in the hopes that this would permanently remain open from the united action of the Gudalur and Paravanar rivers here intended to be concentrated.

5. The Guddelum river has evidently but little practical effect in determining the position of the mouth of the port, though no doubt when its own bar is closed the stream passing south to the Paravanar serves to create a scour in the backwater past the custom-house, and in this way must have a beneficial action in keeping clear the passage for boats.

6. Although when the Paravanar mouth was last open to the northernmost limit the scour in the backwater eroded to some extent the base of the high sand dune on which the flagstaff is placed, and although it was then thought expedient to adopt some precautionary measure in order to counteract such action, the injury was not apparently serious, and so far as can be judged there would appear to be no question as to the thorough safety of the sand dune whatever may be the course taken by the river or the position of the mouth.

7. The main question therefore is how and where to fix the mouth so as to facilitate to the greatest degree the passage of cargo boats between the shipping in the offing and the custom-house.

8. A glance at the map shows that the mouth for securing this object must be fixed directly east of the southernmost point of the sand dune on which the village of Gori is placed, and judging from past action it is possible that the present mouth may have moved up to the point in two or at most in four years' time.

9. It will not of course be desirable to wait for the full completion of such movement to construct such works as may be necessary for fixing the position of the bar, as difficulties of a serious character might present themselves in case of unexpectedly heavy floods in the Paravanar or from other cause.

10. To fix the mouth we are of opinion that a revetment of much the same character as that employed and which has proved successful at Negapatam should be constructed, the work being, if possible, put in hand on the abatement of the next north-east monsoon.

11. The line of this proposed revetment and its return to the north, which will thus in future form the north of the proposed mouth, is shown roughly on the annexed plan, and detailed plans and estimates should, we think, now be called for as early as possible if Government approve of the views above expressed.

12. A difficulty connected with the mouths which successively form at Cuddalore is the deposit of sand which apparently invariably occurs across the backwater immediately north and west of the mouth, wherever or however formed, due no doubt to the check occasioned by the effluent stream to the velocity of the water coming from the Guddelum.

13. On the occasion of our inspection, this sand bar had for a short distance only one foot of water on it and was greatly complained of by the boatmen; inquiries, however, elicited the fact that there was nothing unusual in this state of matters, and that laden cargo boats have almost invariably in past years had to wait for half tide in order to get over the bar.

14. This inconvenience occurs so frequently in ports, both at home and abroad, that it cannot *per se* be looked on as exceptional, though no doubt it should, if possible, be remedied.

15. An examination of the backwater immediately east of the revetment constructed by the late General Lawford shows that a fair depth has here been preserved as no doubt the result of confining the stream at this point, and it may therefore be hoped that, in fixing the mouth as now proposed immediately opposite the revetment in question, the formation of this inner bar may in a measure be counteracted and a better depth preserved than is now the case.

16. The employment of the hand dredge adverted to in Captain Taylor's letter of 1st March printed with G.O., 9th March 1881, No. 606 W., may prove advantageous, but it must be borne in mind that the currents by which the bar is formed recur with each tide and that the action is thus constant.

17. It only remains for us to express an opinion as to the measures which should be adopted in case the revetment by which we propose to fix the mouth of the port has not all the intended effect in keeping the latter fixed and open, though we have no reason to suppose that it would be less efficacious than the similar work at Negapatam.

18. As in that case, we would recommend that a series of short groynes should be constructed along the sea-side of the sand-spit to the south, the terminal one being 100 feet long and placed 200 or 300 feet south of the mouth as fixed.

19. These works while securing the sand-spit from erosive action of the surf and arresting sand in movement along the coast during the south-west monsoon, would, we are satisfied, have a beneficial effect, while the long terminal groyne would bring such action on the mouth proposed to be fixed as would ensure its remaining permanently open for the passage of cargo boats.

20. No measures need in our opinion be taken with reference to the Guddelum river, except to keep it closed save at exceptional flood periods when it may threaten inundation to neighbouring lands.

(Signed) R. H. SANKEY, Col., R.E.,
Chief Engineer, P.W.D.

(Signed) J. H. TAYLOR, Capt., R.N.R.,
Master Attendant, Administrative Department.

7th May 1881.

1306
2

No. 44.

ORDER THEREON, 21st May 1881, No. 1,306 W.

THE Government accept the several conclusions arrived at by the Chief Engineer and Master Attendant as to the measures to be adopted for the improvement of the port of Cuddalore and fixing the bar, and direct that the Superintending Engineer adopt early arrangements for submission of the requisite estimates.

(True Extract.)

Captain, R.E.,
Ag. Under Secy. to Govt., P.W.D.

To the Superintending Engineer, Third Circle.
„ Marine Department.

Exd. E. C. Shunker.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1881 Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
THIRD CIRCLE,

&c., &c., &c.

Dated May, 21st.

Issued

Recd.

Encl.

G. O., 21st May 1881, No. 1,306 W.

MAY.

Nos. 43-44.

Port of Cuddalore.—Accepts the several conclusions arrived at by the Chief Engineer and Master Attendant as to the measures to be adopted for the improvement of the — and fixing the bar, and directs the Superintending Engineer to submit the requisite estimates.

List of papers sent to the Chief Engineer D. B. W. regarding the Port of Cuddalore. 1306/9

1. G. O. No. 1632 W. of 12th July 1880 bearing Superintending Engineer's No. 312 S. A. of 27th idem.
1. G. O. No. 2284 W. of 2nd October 1880 bearing Superintending Engineer's No. 534 S. A. of 7th idem.
1. Copy of Superintending Engineer's No. 544 S. A. of 8th October 1880.
1. Sketch trace of from the Ramanam Survey Map dated 29th October 1880.
1. G. O. No. 606 W. of 9th March 1881.
1. Superintending Engineer's No. 999 S. A. of 24th February 1881 with 1 Petition from the Merchants of Cuddalore dated 16th February 1881.

South Arcot Divisional Office

Cuddalore

10 April 1881

No. 239
No. 999 d. a.
3rd Circle.

P. W. D.

From

The Superintending Engineer,

To

The Chief Engineer
South Area Division

Station

Trichinopoly

Dated

24th February/88

Despatched

25th

Received

27 do.

Enclosures

Reference

Sir, With reference
to your letter No. 118
of the 18th Instant,
I have the honor to
inform you that the
Chief Engineer is
expected to visit
Cuddalore about

606 W

the middle of April next, I therefore
return the Petition and request that
you will be good enough to enquire into
the matter and report your opinion fully
upon it, so that the petition with your
report may be laid before the Chief
Engineer for his order in case he
should not be able to visit Cad-
alore as at present intended.

I have &c

L. Scatty. Lt. Col. R. E.
Supt Engineer &c

88

To Supy Eng. No 1747
8-2-81

Go marine Dept.
No. 471 - 16 Sept/80

Go. P.W. 12th July/80
No. 1632 W

CE No. 2454 - 6th Nov/80

Go. Marine Dept No. 456
18th Dec/74.

Go. P.W. 15 Jan/75 No. 117

Remarks on the past & pre-
sent condition of the Port
of Madras with an
account of the operations
carried on for its im-
provement since 1852. by
Col. S. Lawford & Chief
Eng. C. Cade.

Go. P.W. No. 2742. 7
31st Oct/79 - Mis.

Go P.W. 2445 23 Oct/80
Mis.

Go P.W. 2284 2 Oct/80
Mis.

Go P.W. 9th March 1881
606 W

Letter from S. D. S. 5th
No. 219 29 May/70
to Secy to Govt. & Co.
disposed of in 80 P.W.
No. 122 14-4-78
C. E. Memo No. 2266
7 Oct/80.

1 List of Papers
sent to the Chief Secy.
by the S. D. S. 3rd June
regarding the Port-
of Madras.

P
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b

Joint Report by the Chief Engineer
and the Master Attendant on the
Port of Cuddalore.

We were enabled to examine this
port on the 11th April.

2. The existing mouth which is that
used for the port is now about $\frac{1}{2}$ ²⁰/₃
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3. The sand dune on which the two
latter are situated is generally well
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4. While the mouth formed chiefly by
the action of the Paravanas river has,
in ordinary course, moved north, the
limit in this direction, by local informa-
tion, appears to be near the place
where an unsuccessful attempt was
made some years ago to open and fix

a permanent passage to the sea opposite the Custom House, in the hopes that this would permanently remain open from the united action of the Ludalur and Paravannar rivers here intended to be concentrated.

5. The Ludalur river has evidently but little practical effect in determining the position of the mouth of the port, though no doubt, when its own bar is closed, the stream passing south to the Paravannar serves to create a scour in the backwater past the Custom House, and in this way must have a beneficial action in keeping clear the passage for boats.

6. Although when the Paravannar mouth was last open to the northernmost limit, the scour in the backwater eroded to some extent the base of the high sand dune on which the flag staff is placed, and although it was then thought expedient to adopt

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some precautionary measures in order to counteract such action, the injury was not apparently serious and so far as can be judged there would appear to be no question as to the thorough safety of the sand dune whatever may be the course taken by the river or the position of the mouth.

7. The main question, therefore, is how and where to fix the mouth so as to facilitate to the greatest degree the passage of cargo boats between the shipping in the offing and the Custom House.

8. A glance at the map shows that the mouth for securing this object must be fixed directly east of the southernmost point of the sand dune on which the village of Koré is placed, and judging from past action it is possible that the present mouth may have moved up the point in two or at most in four years' time.

9. It will not of course be desirable to wait for the full completion of such movement to construct such works as may be necessary for fixing the

position of the bar, as difficulties of a serious character might present themselves in case of unexpectedly heavy floods in the Paravananar or from other causes.

10. To fix the mouth we are of opinion that a revetment of much the same character as that employed, and which has proved successful at Negapatam should be constructed, the work being if possible put in hand on the abatement of the next N.E. monsoon.

11. The line of this proposed revetment and its return to the north which will thus in future form the north of the proposed mouth is shown roughly on the annexed plan, and detailed plans and estimates should we think now be called for as early as possible if Govt. approve of the views above expressed.

12. A difficulty connected with the mouths which successively form at Cuddalore is the deposit of sand which

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which apparently invariably occurs across the backwater immediately north and west of the mouth, wherever or however formed, due no doubt to the check occasioned by the effluent stream to the velocity of the water coming from the Gudalur.

13. On the occasion of our inspection this sand bar had for a short distance only one foot of water on it and was greatly complained of by the boatmen; enquiries, however, elicited the fact that there was nothing unusual in this state of matters and that laden cargo boats have almost invariably in past years had to wait for half tide in order to get over the bar.

14. This inconvenience occurs so frequently in ports both at home and abroad that it cannot "per se" be looked on as exceptional, though no doubt it should, if possible be remedied.

15. An examination of the backwater immediately east of the revetment constructed by the late General Lawford shows that a fair depth has here been preserved, as no doubt the result of confining the stream at this point, and it may therefore be hoped that in fixing the mouth as now proposed immediately opposite the revetment in question the formation of this inner bar may in a measure be counteracted and a better depth preserved than is now the case.

16. The employment of the hand dredges adverted to in Captain Saylor's letter of 1st March printed with A.C. 9th March 1881 No. 6068, may prove advantageous but it must be borne in mind that the currents by which the bar is formed recur with each tide and that the action is thus constant.

17. It only remains for us to express an opinion as to the measures which should

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be adopted in case the revetment by which we propose to fix the mouth of the port has not all the intended effect in keeping the latter fixed and open, though we have no reason to suppose that it would be less efficacious than the similar work at Kegonaham.

18. So in that case, we would recommend that a series of short groynes should be constructed along the sea-side of the sand spit to the south, the terminal one being 100 feet long and placed 200 or 300 feet south of the mouth as fixed.

19. These works while securing the sand spit from erosive action of the surf and arresting sand in movement along the coast during the S.E. monsoon, would, we are satisfied, have a beneficial effect while the long terminal groyne would bring such action on

P. H.C. 13051

Recd: 21-5-81

P. L. D.

Captain R. E. R.

4/10/22

P. W. Department.

Read the following

Master's Attendant, dated 7th May 1881.

Superintending Engineer

adopt early arrange-
ments for submission
of the requisite estimates.

Mr. W. H. H. H.
The Rt Hon. the Governor
Scored out by the H.M. 19-5

OH

12/5/81

Note
connected with
the file - with
these cases R.S.

John & some
propos and plans
connected with
H.M. H.M. H.M.
he can be
date of
proposed

S.E. 3d Circle & Desks
Marine Dept. ✓
20/5/87

Mr. C. 12/5 O.L.S. 10.

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Govt. of Madras.
PUBLIC WORKS.

To.

Dated

Issued

Recd.

Encl.

G. O., 21 May 1881, No. 1306 W

Nos. 43-44

Port of Cuddalore Accepts
the several conclusions
arrived at by the Chgo and
Master Attendant as to the
measures to be adopted for
the improvement of the —
and fixing the bar, and
treats the Jaffrey to
submit the requisite
statements.

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