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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works DEPARTMENT

G.O. No.	495	Press.
B.P. No.	—	Mis.
Dated	28. 2 - 1881	197

Jan 1987

Not to be folded or roughly handled

1/95

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

23rd February 1881, No. 495 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 90. MEMORANDUM ON THE BEYPORE HARBOUR.

AFTER personal inspection of the Beypore Harbour with reference to G.O., 26th November 1880, No. 2,722 W., we the undersigned have arrived at the conclusion that the measures recommended by the Superintending Engineer are well considered and should be acted on.

2. Though all immediate necessity for groynes to preserve the road has now for some time disappeared, any future action on the part of the Local Fund Board should be limited as suggested by Major Mead, and there need be no objection to their making a longitudinal revetment on the sea face of the road if they wish to do so.

3. There can, in our opinion, be no doubt that the sea wall with lateral groynes connecting the laterite island on the south of the harbour with the shore should be maintained in good order, and that the funds asked for, Rs. 1,110, should be placed at the Superintending Engineer's disposal at latest from 1st April next.

4. The Chief Engineer has authorised the early collection of material with this object as the work in its present condition is very liable to be breached.

5. As this portion of the work solely concerns the harbour, the Master Attendant will not object to the available balance at credit of the Port Funds being utilised for this purpose.

(Signed) J. H. TAYLOR,
Master Attendant.

(Signed) R. H. SANKEY, Colonel, R.E.,
Chief Engineer.

3rd February 1881.

No. 91. ORDER THEREON, 23rd February 1881, No. 495 W.

THE measures proposed by the Chief Engineer, Public Works Department, and the Master Attendant, Madras, to prevent encroachment of the sea at Beypore are approved.

2. The Superintending Engineer will expedite the work, materials for which are under collection; and a sum of Rs. 1,110 will be placed, by the Financial Department, at the disposal of the Public Works Department from Port Funds early in April at latest.

3. Meanwhile a regular estimate should be submitted for formal sanction.

(True Extract.)

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

To the Superintending Engineer, Second Circle.
" Examiner of Public Works Accounts.
" Marine Department.
" Financial Department.
Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1881) Madras.
PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
SECOND CIRCLE,

Cal. Sec. &c.

Dated February, 23rd.

Encl.

Recd.

Encl.

G. O., 23rd February 1891, No. 495 W.

FEBRUARY.

Nos. 90-91.

Encroachment of the sea at Beypore.—The measures proposed to prevent — approved, and the Superintending Engineer directed to expedite the work and to submit a regular estimate for the same for formal sanction.

1915
GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

26th November 1880, No. 2,722 W.

Buildings and Roads.
Civil Works.

Read the following papers:—

No. 123. Endorsement of the Chief Secretary to Government, Marine Department, dated Ootacamund, 23rd June 1880, No. 1,288.

From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Administrative Department, to the Chief Secretary to Government, Marine Department, dated Madras, 16th June 1880, No. 4,956.

I HAVE the honor to report that an encroachment of the sea has occurred at Beypore, that a portion of the roadway near the Marine Office and Flagstaff has been washed away, and that the compound walls are threatened. The President of the District Local Fund Board proposes the construction of two groynes, 20 yards in length, opposite the site of the abrasion, and he further suggests that a moiety of the expenses should be borne by the Port Fund, as the work is equally indispensable for the safety of the flagstaff as for the preservation of the roadway. While, however, concurring with him in this view, I beg to represent that the prevention of any further encroachment at this spot, and the preservation of the coast line, would appear quite as advantageous to the Madras Railway Company's interests as to this Department, as their property abuts on to the Marine Office compound, and as will be seen by the accompanying rough sketch by the Port Officer, Calicut, is apparently in greater jeopardy than the former.

2. In these circumstances, I herewith submit an estimate and specification of the work amounting to Rs. (843) eight hundred and forty-three for sanction of His Grace the Governor in Council, and will leave it to the Government to decide whether or not the Railway Company should participate in the expenditure about to be incurred. In either case a moiety or one-third of the amount of the estimate will have to be borne by the General Port Fund.

FORWARDED to the Chief Engineer for his opinion on the groynes proposed.

(Signed) R. DAVIDSON,
Chief Secretary.

To the Chief Engineer, Public Works Department.

No. 123-A. Endorsement of the Superintending Engineer, Second Circle, dated Erode, 15th September 1880, No. 279.

From Major J. L. L. MORANT, R.E., Executive Engineer, West Coast Division, to the Superintending Engineer, Second Circle, Coimbatore, dated Calicut, 17th July 1880, No. 113.

In reply to your endorsement No. 620 W.C., dated 23rd June 1880, on memorandum No. 194, dated 25th idem, from the Chief Engineer, with its three enclosures herewith returned, regarding the encroachment of the sea at Beypore and the proposals for its prevention, I have the honor to report that, in my humble opinion, the sea encroachment has been somewhat exaggerated, and that the proposed remedies are likely to prove mischievous to a portion of the harbour and inutile in protecting the Local Fund road and compound walls, &c.

2. Groynes similar to those now estimated for and advocated by the Local Fund Engineer were constructed just at the spot where the recent encroachment has occurred a year or two years ago. The effect of these was to silt up the whole of the

shore on which the Prince of Wales Jetty was erected, rendering it quite useless as a jetty. At the end of June 1880 one of these groynes (built last year) was washed away with the immediate effect of carrying away some of the sand around the jetty. The adjoining sketch explains.

The red figures being the breadths of sand around the jetty in May and the black figures those in June. Thus—

In May the breadths were 200 feet.	In June the breadths were 64 feet.
80 "	38 "
50 "	7 "
60 "	19 "
90 "	27 "
250 "	124 "

When the jetty was built, some four or six years ago, the water around it (where now there is dry land) was 10 feet deep.

It is thus clear (by the groyne built only last year being washed away and by the above figures and facts) that the groyne system is not only defective in the purpose it is immediately intended to serve, but that it also is injurious to the harbour in causing a portion of it to silt up.

3. I beg further to remark that the Local Fund Engineer has collected stone for the two groynes estimated for, and is, I presume, about to build them. I venture to point out that it seems to me objectionable for the Local Fund Engineer to start a work of this nature without the prior sanction of Government. It is not a question where the only safety of a local road is concerned, but also where Imperial interests are involved, and in protecting his road he is injuring a harbour.

4. The best remedy, in my humble opinion, is to drive 10 feet piles along and parallel to the road side, backed by a wall of rubble stone. This was done by a former Government Engineer near the same spot and appears to have succeeded. This plan would preserve the road and not injure the harbour.

5. The survey of this part of the harbour is ready and only requires plotting, inking in and printing.

From Major J. L. L. MORANT, R.E., Executive Engineer, West Coast Division, to the Superintending Engineer, Second Circle, dated Calicut, 31st August 1880, No. 262.

I HAVE the honor to address you with reference to your memorandum No. 758 W.C., dated the 27th July 1880, regarding the Beypore harbour beach.

2. I beg to submit, as required, a plan* and sheet of sections* of the south portion of the Beypore Harbour, showing the nature and extent of the encroachment of the sea in last

* By banghy parcel.

May which has given rise to this correspondence.

3. In order that the subject may be better understood, I beg briefly to indicate what has transpired during the last ten years in connection with the Beypore Harbour.

In February 1871 Mr. George Robertson inspected the Beypore Harbour, and reported that "outside the harbour mouth and to the south of it there is a reef of laterite rocks connected with the shore by an isthmus of sand. It is very likely this reef extends underneath the sand of the bar. The reef with its isthmus acts as a groyne and confines on one side the ebb and flow through the entrance. The isthmus has often been cut through by the fishermen, and a channel made by which their boats could get out to sea in certain winds without having to pass through the surf on the bar. Whenever it is so cut a diminution in the depth of water on the bar is noticed, so Captain Gillham has very properly stopped the practice. It would be well to have the isthmus heightened, its level is so nearly that of high water that a channel can be cut in a few hours. A bad sea coming on when the channel is open would enlarge it to such an extent as seriously to injure the depth on the bar."

4. In March 1873 the Master Attendant, Madras, urged on Government the advisability of connecting the rocky islet on the south of the harbour entrance with the mainland. By this means he believed the water on the harbour bar would be deepened. The Collector of Malabar, to whom this opinion was referred, agreed, on the 21st of May 1873, with the Master Attendant's suggestion and in its probable effect on the bar. The Government of Madras, therefore, in their Marine Department Order No. 207, dated 8th August 1873, desired the Public Works Department "to prepare a plan and estimate for connecting the rocky islet at the mouth of the Beypore river with the mainland, in view to deepening the river entrance by increased scour."

5. On the 11th of April 1874 a plan, section, and an estimate of Rs. 3,740 were submitted to Government with the above object by the Inspecting Engineer for Ports and Communications. This was subjected to a criticism by the then Chief Engineer, who suggested another method of connecting the islet with the shore, to cost at first Rs. 900 and subsequently Rs. 2,500. This estimate was sanctioned in Marine Department G.O., No. 159, dated 13th May 1874, and Rs. 900 allotted for the smaller portion of the work in Public Works G.O., No. 173, dated 16th June 1874. This amount was increased to Rs. 1,600 in April 1875, and subsequently in December 1875 Rs. 1,070 more were expended, making a total of Rs. 2,670.

6. Since the construction of this so-called "sea wall" it has been three times repaired. But no records exist nor have any soundings at any time been made, to show whether it has in any way answered the purpose for which it was built, viz., "to deepen the river entrance by increased scour." While much attention and criticism were bestowed on the wall itself, nothing was done to ascertain whether the object to obtain which the work was constructed resulted therefrom. It is impossible now to decide this point, as levels should have been taken across the wall before the sea-wall was built. I now send you one estimate for putting it into thorough repair amounting to Rs. 315; and another for strengthening it by some additions as indicated in my letter No. 322, dated 24th February 1880; this latter estimate amounts to Rs. 795.

7. With regard to the encroachments by the sea, as complained of in the papers sent with memorandum No. 194, dated 25th June 1880, from the Chief Engineer, and reported on in my letter to your address No. 113, dated 17th July 1880, I have the honor to invite your inspection of the accompanying plan, on which the encroachment is shown. The sections have been made in order to exhibit the levels of the adjoining ground, so that the effects of a breach of the coast road by the sea or of a high tide might be at once apparent.

8. The cost of the proposal made in paragraph 4 of my last letter to your address on the subject will be about Rs. 3 per running foot. About 600 running feet will have to be thus protected at a cost of about Rs. 2,000. The portion to be protected is where the encroachment took place in May last between the red figures 9 and 12.

9. This letter has been delayed owing to the Survey mentioned at the conclusion of my last letter having been found to be incorrect. The Sub-Divisional Officer has been engaged in making a fresh one.

Copy of letter No. 262, dated 31st August, and No. 113, dated 17th July 1880, from the Executive Engineer, West Coast, are forwarded to the Chief Engineer, with reference to his endorsement No. 194, dated 25th June 1880. Two copies of letters from Executive Engineer. One original letter from Master Attendant with estimate and sketch. Two plans by banghy.

The Survey shows the extent of the encroachment, and the undersigned does not consider it advisable for anything to be done at present as most probably the sea will in a few months throw up again what it has removed.

2. Further, it is considered that the Local Fund Board should bear all expenses in protecting their road, should protection be found necessary, but they ought not to be allowed to throw out groynes further than 50 feet west of the road, as it is believed that long groynes might be disadvantageous to the harbour.

3. The sea-wall connecting the laterite reef with the mainland which was constructed in 1875 ought to be maintained, and the Superintending Engineer agrees with Major Morant that it ought to be repaired and that two additional groynes should be built, the cost of the first is estimated at Rs. 315 that of the latter at Rs. 795. He requests therefore that Rs. 1,110 may be granted for these works.

(Signed) H. R. MEAD, Major, R.E.,
Superintending Engineer, Second Circle.

No. 123-B. From J. H. TAYLOR, Esq., Lieutenant, R.N.R., Master Attendant, Administrative Department, to the Chief Engineer, Public Works Department, dated Madras, 15th November 1880, No. 10,106.

In returning the correspondence and plans marginally noted, I have the honor to remark that there appears to be no immediate danger of any further erosion at Beypore, and to suggest that, as I hope to visit the Western Coast in January with you, and personally inspect the situation, the proposals of Major Morant could then be considered.

Letter from the Superintending Engineer, Second Circle, No. 279, dated 15th September 1880.
Plan and sheet Sections of Beypore Harbour.

4 PUBLIC WORKS DEPARTMENT, 26th NOVEMBER 1880, No. 2,722 W.

2. I imagine that, owing to a prevalence of northerly winds, there has been a scour from the groynes southward, at the same time as the monsoon has been comparatively scant there has been no scour from the river to carry away the sand accumulated in the vicinity of the jetty.

3. I have noted in blacklead pencil the line of coast, as nearly as I can remember, as it was in 1876.

4. I regret to say no systematic record of soundings on the bar has been made, but I have instructed the Port Officer of Calicut to take soundings at intervals of a month during the fine weather season.

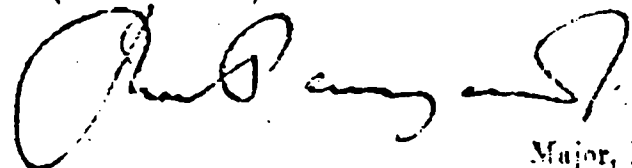
No. 124. ORDER THEREON, 26th November 1880, No. 2,722 W.

THE measures to be adopted in connection with the encroachment of the sea at Beypore will be considered by the Chief Engineer and Master Attendant after personal inspection of the locality in January next.

2. Meanwhile the Port Officer will take careful observations at regular intervals, and report any extraordinary changes that may occur.

3. The Local Fund Board should be informed that their action must be confined to the work indicated by Major Morant as required for the protection of the road.

(True Extract.)



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

To the Chief Engineer, Public Works Department. *With 4 enclosures.*
" Superintending Engineer, Second Circle.
" Marine Department.
" Financial Department.

Ed. S. T. Austin.
Spars Copies

Encroachment of the sea at Deypore.—Intimating that the measures to be adopted in connection with the — will be considered after the inspection of the locality by the Chief Engineer and the Master Attendant.

CALICUT DIVISION.

10/12/20

MALABAR DISTRICT.

ESTIMATE OF THE PROBABLE EXPENSE OF
*Carrying & conveying one set of goods and the
 other at 50 South of the Flagstaff Passports to prevent the road being inclosed away.*

[illegible]

Abstract Volume of the purchable wood of building & freyone on at 20 years and the
 other at 30 fourth of the 1844 staff at 20 years to present the wood being needed away.

Route	Particulars	Date	Amount	Total	Balance
192 1/2 Cords of Tonga stone	at 2000 per cord		38000		
Sumaries & Superintendence	at 1000 per cord		38000		
Total for one freyone				76000	
Total for another				76000	
Total amount of Return at 20 years				152000	

Abstract Engg's office 24th 33
 Carpenters June 1844

Abstract Engg's office 24th 33
 Carpenters June 1844

Another estimate of the probable cost of buying a program was at 25 cents and the other at 30 percent of the dry stuff at 15 cents to prevent the road being washed away.

Route	Particulars	Rate	Amount	Total
1922 Cyls of rough stone		at 2.00	40.00	
Gravel & Paving material		at 10.00	50.00	
	Total for one day			40.00
	Total for another			40.00
	Total amount of Estimate			80.00

Directed Engrs office Litch
Calcutta June 1859

Robert Ferguson & Co
New York

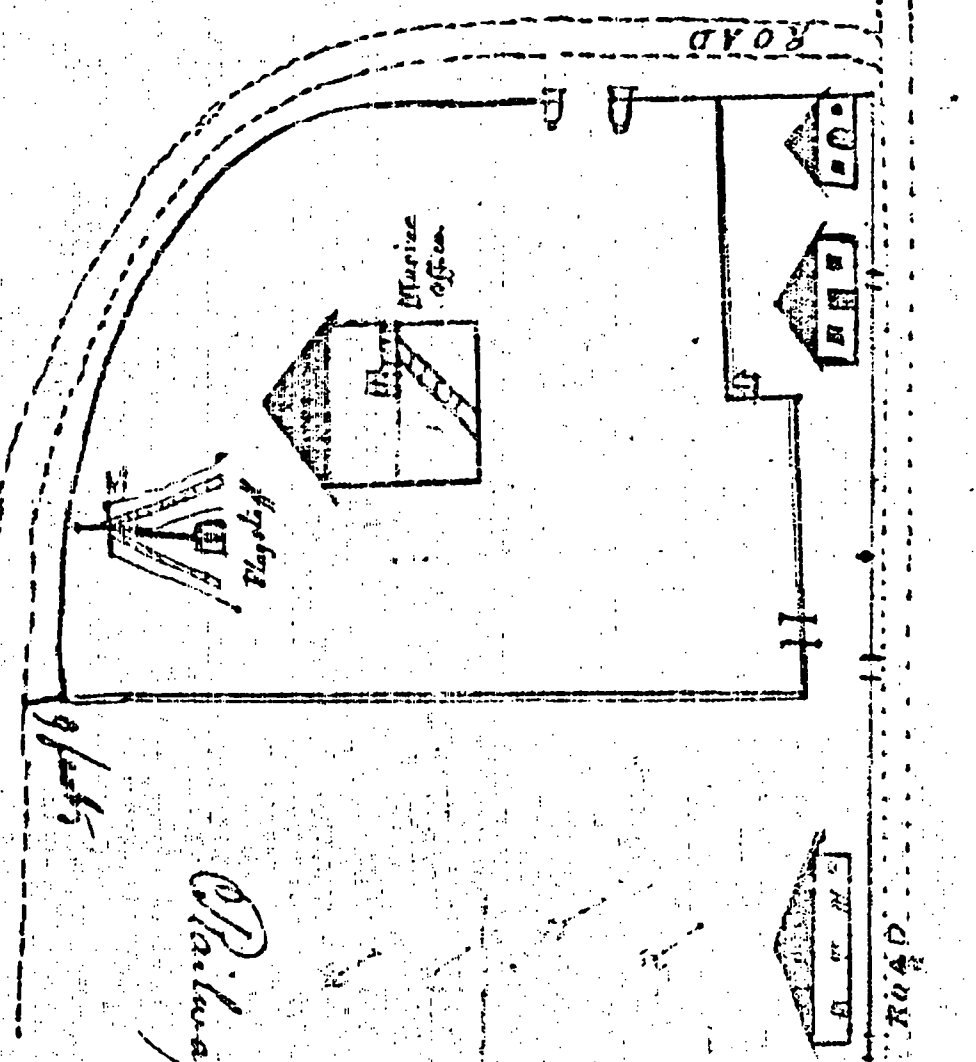
Lat. 11° 45' N
 Long. 103° 45' E

Monday
 Tuesday } June 1880

Abstract Return for East
 and 2 copies sent to the
 Surveyor at Singapore

Survey of Plot No 845-1-1

There is no other claim to this place
 forming



Railway property

५३३

District Engineer, Lahore
- Malakwal

Local Dept.
Malabar District

P.W.D.
205870

Malabar District
Revenue
205870

Estimated expenditure
for carrying 2 pygms
on the South coast of the
Malabar District at Beypore

Amount of Rs 8.50

Alms in the Beypore
Museum

After personal in-
spection of the Beypore
Museum with reference
to P.O. 26 Nov. 1880
to 2722 W we the
undersigned have
arrived at the con-
clusion, that the
specimens recommended
by the Supd. Engineer,
are well arranged,
and should be acted
on

through all imme-
diate necessity to
pygms to preserve the
work has now
in some time dis-
appeared, any further
action on the part
of the Local Function-
ary should be

Supd.
18/5/87
18/4/87

limited as suggested
by Major Beach,
there need be no
objection to this
a longitudinal
section in the
face of the work
being well below

There can be no
doubt in my mind
that the Sea work
with Central Project
connecting the Central
island in the South
of the Harbor with
the shore should
be maintained in
good order, and
that the funds
asked for No. 1110
should be placed
at the Super. Engineer's
disposal at latest
June 1st April and

The Chief Engineer
is authorized to
make collection of
material with this
object as the work
in its present con-
dition is a liability
to be increased

As this portion of
the work solely an-
swers the Harbor
the smaller amount
will not object to
the available
balance at credit
of the Port funds
being utilized for
this purpose

Very
Respectfully
O. B. Hawley
at H
Chief Engineer

3/2/87

A
J. J. J.

N^o 495 W

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 23rd Feb 1881.

Read the following:—

Memorandum by Chief Engineer, P. W. D.
and Master Attendant, Madras, dated 3rd
February 1881.

The measures pro-
posed by the Chief
Engineer, P. W. D. and
the Master Attendant,
Madras, to prevent
encroachment of the
escut Beypane are
approved.

2. The Chief Engineer
will execute the work
materials for which
are under collection;
and a sum of Rs 110

RS. will

will be placed by the
Financial Department
at the disposal of the
Public Works Dept.
from Post-fund only
in April & October.

3. Inasmuch as regular
estimates should be
submitted for formal
sanction.

[Signature]

25/2/07

Superior Records
Exr. P. M. A. 7
Municipal Dept. 7
Public Works 7
3-3-81 21

7798.

Capt. of 1881: 30 JUNE.
PUBLIC WORKS.

1.

2.
Filed

Issued

Recd.

Encl.

G. O. 23rd July 1881, No. 49870.

No. 9087.

Encroachment of the
sea at Beypore.

The measures proposed
to prevent — opposed
+ the S. decided to
oppose the work and
to submit a regular
Memorandum for the same
for formal sanction.