M.R.O. 14—10,000—21-4-22

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1834	Press / ~~Mis.~~
174-175	
Dated 16—9— 1861.	

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 16th September 1861.

No. 174. Read the following Proceedings of the Board of Revenue, dated 6th July 1861, No. 3,552:—

Read the following letter from W. M. CADELL, Esq., Collector of Tanjore, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, Chepauk, dated Point Calymere, 20th June 1861, No. 172.

SIR,

1. I have the honor to reply to your predecessor's letter of the 11th February last, regarding the opening of the Great Southern of India Railway and the arrangements which it will be necessary to make for providing an adequate supply of salt to meet the increased demand which may be expected to arise on the completion of that line of communication.

2. In reply, I beg to state that I am informed by the Chief Engineer of the Railway, that it is expected the line will be open from Negapatam to Tanjore in August, and throughout to Trichinopoly in October.

3. With regard to the proposal of the Board to excavate a line of canal from Vadarnium to Negapatam for the conveyance of Vadarnium Salt to the latter port; immediately on the receipt of the Board's communication, I requested the District Engineer to have the tract of country through which the proposed canal would pass surveyed and levelled, and to favor me with his opinion as to the practicability of the scheme and its probable cost. Up to this date, however, I have not been favored with any answer from that Officer, and hence I have hitherto deferred replying to the Board's communication. The manufacture of an increased supply of salt has, however, not been lost sight of, and by the end of the season I trust 2,000 garces may be in store at Vadarnium.

4. With regard to the proposed canal, I have for some time past given the subject much consideration, and having lately gone carefully over the line which the proposed canal would take, I beg to submit the following observations for the consideration of the Board.

5. Commencing from the southward and from the platforms at Vadarnium, the canal would run in a line nearly due north to Topetoray where it would join the Adappam river. Reaching this, and in order to shorten the length of the part to be excavated, and thereby to reduce the cost, I would propose that advantage be taken of the Adappam river as far as Callimodu up to which place the river is navigable for boats at ALL seasons of the year. From Callimodu a cutting might thence be carried in a direct line to the Valungunny river, which it would join about a mile to the west of that town. From Valungunny to Negapatam there already exists a water communication practicable for boats for about six months in the year, but which doubtless might be deepened and improved.

6. The estimate of the cutting from the Salt platforms at Vadarnium to Topetoray, a distance of about 2 miles, is, I believe, about 11,000 Rupees, and the distance from Callimodu to Valungunny being about 14 miles, the cost of the excavation of that portion only would probably not be less than 60 or 70,000 Rupees. The deepening and improving of the river from Valungunny to Negapatam would also require 2 or 3,000 Rupees at the least, and altogether the cost of an inland water communication from Vadarnium to Negapatam could not, I think, be estimated at less than 1,00,000 Rupees.

7. In the present state of the finances, it would be hopeless to expect that so large an amount would be forthcoming for this project; and after much careful consideration, I am inclined to think that the work itself is scarcely necessary, at least, under the present restrictions on expenditure.

8. The Board are aware that the export of salt by sea from Vadarnium has almost altogether ceased, and I believe chiefly owing to the difficulty in procuring boats and the great distance at which ships are obliged to lie from the shore, thus rendering the taking in of cargo a work of much time and labor. The first of these difficulties, however, can be easily got over, and even now with a short notice boats of the lading of the Ship "Dorothy Jobson" bound to Calcutta have been procured from Topetoray, and should the trade in salt spring up and expand, as I earnestly hope and trust it will, there can be no doubt that a sufficient number of boats will very soon be forthcoming.

With regard to the second difficulty, viz., the great distance at which vessels are obliged to lie in the offing, I am inclined to think that when the chart of the coast survey made by Lieutenant Sweeney of the Indian Navy last year is published, it will be found that vessels can lie much nearer than is generally supposed. At present ships anchor in 4 or 4½ fathoms at a distance of nearly 5 miles from the shore, but the water shoals so very gradually on this part of the coast, that I think it possibly may be found that almost the same depth of water exists much further in. It cannot, however, be expected that vessels of any size will lie much nearer the shore especially during the prevalence of the north-east monsoon and with the shoals off Point Calymere so close at hand to leeward, I am, therefore, strongly of opinion that Vadarnium itself can never be made a place of resort for shipping Salt to any very great extent, and with Negapatam so close at hand, and the terminus of a line of Railway, it is, I conceive, a matter of the last importance that that port should be made our principal Salt Depôt.

9. The question therefore is, how can the Vadarnium Salt be transported to Negapatam? It has been already shown that the cutting of a canal would be too expensive, and as land carriage for so bulky an article is altogether out of the question, the only other means is by the natural highway, the sea.

10. With regard to the practicability of this, there can of course be no doubt; and the only point for consideration is whether the transport can be effected at such a rate as to make it worth while. Since my arrival on the coast, I have taken some pains to ascertain for what sum Dhonies and small country craft would undertake the conveyance of Salt from Vadarnium to Negapatam, and from the inquiries I have made, I find that freight could be obtained at the rate of 5 Rupees per garce. It seems that the native brigs and other craft which take rice to Colombo generally return empty or nearly so, and on their return would willingly call off Vadarnium for salt. The salt would of course only be shipped during the south-west monsoon or from April to September, when the wind is fair, and the transport would only occupy a few hours.

11. Salt, as at present loaded at Vadarnium, costs the Government as follows, per garce :—

	RS.	A.	P.
Collecting from the beds...	2	0	0
Storing...	2	0	0
Measuring for shipment, &c...	0	6	10½
Cooly hire for taking to boats...	2	8	0
Boat hire to ship...	3	12	0
	10	10	10½
Add for freight to Negapatam...	5	0	0
Boat hire at Negapatam and storing, say	3	0	0
	18	10	10½

N. B.—The expense of Establishments is not included.

12. If the salt was required for export trade, and according to the terms at present offered to shippers, again brought alongside the vessel at Negapatam at the Government expense, there would be a further addition of Rupees 3 per garce, thus making the total cost 21-10-10½, or Rupees 3-10-10½ more than the amount received by Government. This of course would be altogether prohibiting as regards export trade, and as regards Inland sales, the cost of the Vadarnium Salt would be about 8 Rupees per grace more than is paid for that manufactured on the spot. It must, however, be borne in mind that the Vadarnium Salt is of a very superior quality to that manufactured at Negapatam, and that the quantity which can be produced at that place is limited probably to not more than 2,500 or 3,000 garces annually.

13. After much careful consideration, I am however of opinion, that the cost of the Vadarnium Salt can be very much reduced, and, as the Board are aware, it can be produced in almost any quantity, so that if the cost of Establishments be taken into account, the cost price per garce would be still less. It will be seen that at present the Government pay Rupees 2 per

garce for collecting and Rupees 2 for storing, but it seems to me that by a well-devised system of cuts, and the making use of flat-bottomed boats or punts to come alongside the platforms, the cost might be reduced to Rupees 3. With regard to the charges of shipment, there is also, I conceive, large scope for reduction. At present the cooly hire for conveying a garce from the platforms to the boats is Rupees 2-8, but I am of opinion that if the boats could (as I have proposed) load alongside the platforms, this would be reduced to Annas 8. Again with respect to the boat expenses, I would observe that there is already an inlet or rather outlet of the sea on the east coast about a mile to the south of the present platforms where the surplus water coming from the south, after filling the beds, discharges itself. This might easily, I conceive, be directed close to the platforms and at a very small expense, and the boats having loaded alongside the platforms would be able to proceed to sea at once. It is also to be borne in mind that the native vessels, instead of lying at a distance of 4 and 5 miles from the shore would probably be within one, and if the opening of a cut into the sea which I have proposed is made, there is no reason why the boats should not make five or six trips a day instead of only one as at present. The charge for boat hire per garce might then be reduced to Rupees 1-8, and the total cost would therefore be probably as follows :—

See accompanying sketch.

	RS.	A.	P.
Cost of one garce at the platforms...	3	0	0
Boat hire do. to Dhoney	2	0	0
Freight per garce...	5	0	0
Landing at Negapatam, and storing...	3	8	0
Rupees.....	13	8	0

14. The expense of cutting the canals from the beds to the platforms and thence to the sea would not be very great, and if I am permitted to carry out the work, I think they could be made for about Rupees 500. There would of course always be some little difficulty at the junction of the cut with the sea and of its mouth being closed by the sand, but with the assistance of the boatmen, a passage for a boat might easily be made at any time. If, however, a permanent communication by means of a deep cut and well embanked could be secured from the southern coast to the eastern in the direction now taken by the tide, I think this difficulty would be altogether obviated.

15. The Board are perhaps not aware that the English vessels engaged in bringing Railway stores to Negapatam generally leave that port in ballast, and if it were only known that salt were procurable without difficulty or delay, I doubt not they would be glad to take it to Calcutta particularly in the south-west monsoon.

16. The importance of Negapatam as a depôt therefore, both for export and inland trade cannot, I think, be over-rated, and by a well-devised system of cuts throughout the Vadarnium swamp I conceive that the whole of that extensive tract might be converted into a series of immense salt beds, and salt produced to almost any extent. By the cutting also of a deep canal below the level of the sea to be filled by the tides, and with branches to the different platforms, a cheap and easy means of transport might at once be effected, and I have not a doubt that if this project be carried out, the fine Salt of Vadarnium may be stored at Negapatam for even less than I have calculated, and in any quantity.

17. I would take this opportunity of informing the Board that we have just shipped 81 garces of Salt on board the "Dorothy Jobson" for Calcutta, and the merchant who loaded the vessel, and who it appears is a wealthy and respectable merchant at Jaffna, has told me that if a little more attention is paid to the purity of the salt and to keep it from being mixed with sand, he will be prepared to ship large quantities annually. I need hardly say that every endeavour will be made to secure the purity of the salt, and the Deputy Collector in charge of the Salt Department has already taken up the matter with his usual zeal and energy.

18. In conclusion, I would beg also to observe that during my late visit to Negapatam, and in communication with the Chief Engineer of the Railway, and Mr. Fraser, 1st Assistant District

Engineer, I have made arrangements for the construction of a new salt platform close to the Railway terminus, and in connection with one of their sidings. This will afford every facility for the transport of salt inland by rail. The platform being also on the edge of the river, the salt can be brought direct from the pans on boats underneath the Railway girder bridge, and stored at once. In the laying out of the Government ground at Negapatam, I have also reserved a considerable space for storing Salt should it be determined to make Negapatam a depôt for export trade as well as for inland traffic. I beg to forward a rough hand-sketch showing what I have proposed, and trust my recommendation will meet with the approval of the Board.

19. I would only further add that if it is determined to carry out all or any of the suggestions I have now made, I beg most earnestly to be permitted to have the works carried out by this Department, and under the superintendence of the Deputy Collector. If my request is granted, I think I can guarantee that the works will be carried out with vigor and promptitude and also in an efficient manner, and they will of course be open to the inspection and check of the professional department.

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1. Ordered to be submitted to Government with the Board's recommendation that the Collector be authorized at once to expend a sum not exceeding Rupees 1,000 in facilitating the transport of the Salt from the beds to the platforms, and thence to the place of shipment by the formation of boat channels, and that he be instructed in communication with the District Engineer to submit a matured scheme for increasing to the fullest extent the formation of the spontaneous Salt, and for reducing as much as possible the cost of collection and transfer to Negapatam.

2. The Board approve of the proposal to convey the Salt from Vadarnium to Negapatam by sea, and do not doubt that it will be found perfectly practicable to lay the article down there at a much lower rate than the lowest estimated by the Collector. A system of contracts on a large or widely extended scale for collecting and conveying the Salt to Negapatam would probably work well and cheaply. At present our efforts have been little more than tentative, and labor is scarce and dear at the locality.

3. The Board think that it may hereafter be found advisable to make Vadarnium the sole place of manufacture in the District, and to supply thence the coast depôts which it may be found desirable to maintain, and they would wish the Collector and District Engineer to give their best consideration to this proposal. Meanwhile, however, there can be no doubt of the desirableness of making this fine Salt available at Negapatam in abundance, and as profitably as may be to Government.

4. The Railway will convey it thence into the interior with the greatest facility supplying the important towns of Coimbatore, Tanjore, Trichinopoly, Caroor and an extensive tract of country in Tinnevelly and Coimbatore Districts, and with the late increase in the selling price it is of the highest importance to improve as much as possible the means of supplying the article to the market. The Board believe it to be perfectly feasible not only to maintain but to increase the demand notwithstanding the enhanced selling price by reducing the ultimate cost to the consumer through improvements in the system of supply, and in the article itself.

(A true Copy and Extract.)

(Signed) W. HUDLESTON, *Secretary.*

No. 175. ORDER THEREON, 16th September 1861, No. 1,834.

1. With these Proceedings the Revenue Board submit a letter from the Collector of Tanjore on the subject of supplying Negapatam with Salt from Vadarnium, near Point Calymere.

2. The completion of the Railway from Negapatam to Tanjore and Trichinopoly will certainly increase the demand for Salt at Negapatam, not only for Home and Inland consumption, but also in some degree for export by sea. It is desirable therefore that there should be a sufficient supply available at Negapatam. The present sales at this place are not stated, nor

the probable future demand, but the maximum manufacture is said to range from 3 to 3½ lacs of Indian maunds annually.

3. The Collector proposes to supplement the Negapatam stock from Vadarnium, where Salt of great purity is obtainable at a very low cost, the production being almost spontaneous. The difficulty, however, is to provide cheap means of conveyance, for though the distance from Negapatam is short, the country is low and swampy; transport by land would be very expensive; a canal cannot be cut except at a heavy outlay; and ships cannot anchor within four or five miles.

4. The Collector proposes to make a small cut, at a cost of about 500 Rupees, from the beds to the platforms and thence to the sea; and he hopes thus to be able to convey the Salt economically on native vessels which take rice to Colombo and returning empty, would readily call at Vadarnium for Salt.

5. The Board support this scheme; and recommend that 1,000 Rupees be placed at the Collector's disposal for immediate expenditure, in cutting boat canals from the Salt beds to the platforms and thence to the sea, and that he and the District Engineer be instructed to confer together, and mature more complete arrangements for increasing and cheapening both the production and conveyance of the salt.

6. The Collector states that he has already communicated with the District Engineer, but has received no reply; and one condition of his making the canal for 500 Rupees is that the work be entrusted to his Department, to be carried out under the superintendence of the Deputy Collector in charge of Salt, subject to the inspection and check of the professional Department.

7. It seems to the Government that the project requires closer investigation than it has received. The Collector states that the cost of laying down Vadarnium Salt at Negapatam will after all his improvements, be about 13½ Rupees per garce, but Negapatam Salt appears to cost less than 11 Rupees; so that on this supposition, Government would lose 2½ Rupees on every garce. Moreover, it is not shown that any deficiency at Negapatam cannot be supplied more economically from other pans of the Tanjore District. As no present urgency is alleged, the Government wish to have the subject more carefully considered in the first instance; and the District Engineer will be desired to have the locality carefully examined by a competent Officer, if he cannot conveniently attend to it himself. The subject is one on which a professional opinion is particularly desirable, for of the Collector's Estimate of 13½ Rupees, no less than 10½ are set down for transit charges to Negapatam. It may possibly be found that the better plan will be to facilitate and cheapen communication with the sea and constitute Vadarnium the chief place for exporting Salt by sea; thereby reducing the demand on this account on the Negapatam stores.

(Signed) J. D. SIM,

Secretary to Government.

Rec.d No. 1714

Wilt State Rec.d the Rec.d 18th ulto which a letter from the Collr of Tanjore on the subject of sending Nagapatam salt from Madras. near Point Calymere.

The completion of the Railways from Nagapatam to Tanjore & Trichinopoly will certainly increase the demand for Salt at Nagapatam, both only for the Home & Ceylon consumption both in some degree also, for Export by Sea. It is desirable therefore that there

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The Collr. Inspects
& supplies the
Negapatam Stocks
from Vedaranniem
where Salt of good
quality is Manufactured
at a very low cost;
the Production being
almost spontaneous.
The difficulty lies

ces is to provide cheap
means of conveyance,
for Negr. the distances
from Negapatam is
short, the country is
low & swampy - the
transport by land
would be very Ex-
pensive - a Canal
cannot be cut Ex-
cept at a heavy
outlay; and Ships
Ships cannot an-
chor within 4 or 5
miles -

The Collr. Inspects
& make a Shoal
cut, at a cost of
about 500 Rs from
the Locks to the Sea,
and the Boats then
& Locate the Salt
the Salt

Convey

nomically as the
Native vessels which
take, vice Colonel
Waterman, entirely, would
certainly call at Ka-
daranin -

5 The Bd. therefore
thus scheme; and
recommend that
1000 Rs be placed
at the Collrs disposal
for immediate Exp.
-penditure and
that he & the Asst.
Engr. be instructed
to confer together, &
Native Pilots com-
plete arrangements
for increasing &
deepening & the
protection & con-
veyance of the
Salts.

The Collr. states

Y that he has already
communicated with
Mr. Supt. but has re-
ceived no reply &
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& [illegible]

It seems time
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-ferred to should
receive - The Collr
states that the cost
of laying down Ka-
daranin Salts at
Repapatam will
attach his increase.
-ment, be about 13/2
Rs per ton - that
Repapatam salts
abroad be cost less

than 11 Rs. - Do that
on this supposition,
first would take
2/3 Rs on Every face.
Hereafter there is no
attempt being shewn that
any deficiency of
Repatarees cannot
be supplied more
economically from
other parts of the Empire
this must be as no pre-
sent urgency is al-
-leged it would be
better I think to
the subject more carefully considered in
the first instance,
and the District
Engineer may be
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by a competent
officer, if he cannot

conveniently attend to
it himself. - The subject
is one on which a
professional opinion
is particularly de-
-sirable. For if the Estimate of 13/3 Rs
or less than 10/3 are
set down for the whole
charges of Repatarees.
It may possibly be
found that the Letter
plan will be facilitate communi-
cation with the Lee
and constitute a
convenient place for erecting
salt by sea, - thereby
reducing the demand
on this account on
the Royal Patarees
Stores.

If the prin. concern

in this view, it will be unnecessary to notice the W^d. Gov^t. Agent's Memorandum — the sole place of Manufacture for the District — the practicability of which has already been questioned by Gov^t.

J. A. J.

(8)

On the subject of supplying Negapatam with Salt.

I concur in the Minute

W. M.

Revenue Department.

No. 1834

Proceedings of the Madras Government — Under date the 16th September 1861 — Read the following Proceedings of the Board of Revenue —

Submitting with recommendation a letter from the Collector of Tanjore regarding the opening of the Great Southern of Indian Railway and the arrangement to be made for providing an adequate supply of Salt to meet the increased demand expected to arise on the completion of that line of communication —

(Here enter 6th July 1861. No. 3552) —

1. With these Proceedings the Revenue Board submit a letter from the Collector of Tanjore on the subject of supplying Negapatam with Salt from Vedaranium, near Point Calimere —

2.

C. 3 Sept. R 5

2. The completion of the Railway from Negapatam to Tanjore and Trichinopoly will certainly increase the demand for salt at Negapatam, not only for Home and Inland consumption but also in some degree for export by sea - It is desirable therefor that there should be a sufficient supply available at Negapatam - The present sales at this place are not stated, nor the probable future demand, but the maximum manufacture is said to range from 36 3/2 lacs of Indian Maunds annually -

3. The Collector proposes to supplement the Negapatam stock from Vedaranium where salt of great purity is obtainable at a very low cost, the production being almost spontaneous - The difficulty however is to provide cheap means of conveyance, for though the distance from Negapatam is short, the country is low and swampy; transport by land would be very expensive; a Canal cannot be cut except at a heavy outlay; & ships cannot ascend within 4 or 5 miles -

4. The Collector proposes to make a Kuttah cut, at a cost of about 500 Rupees from the beach to the platforms & thence to the sea; and he hopes thus to be able to convey the salt economically on Native vessels which take rice to Columbo and return empty, would readily call at Vedaranium for salt -

5. The Board support

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for transit charges to Negapatam. It may probably be found that the better plan will be to facilitate & cheapen communication with the sea and constitute Vadarnium the chief place for exporting salt by sea; thereby reducing the demand on this account on the Negapatam stores.

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14 Copies - Board of Revenue with an Order Dispatch
13 " Chief Engineer

Rec Board of Revenue
Chief Engr

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On the subject of supplying Negapatam with Salt from Vedarunnie. —

Revenue 1861 Departt.
Pro: of Govt. for Septr.

No 1834.

Pro: of the Madras Govt:
of 16th Septr. 61.

— Further Pro 12 July 62 No 185-187
Pro. of the Bd of R of 15 Septr. 62
C. No. 2654 m

Board's Proceedings pro:
viding certain arrangements
for providing an adequate
supply of Salt to meet the expected
demand from the opening of
the Great Southern of India
Railway -

No 174 & 175