M.R.O. 14-5,450—22-10-25.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 366 Press ~~Mis.~~

160. 161

Dated 14 — 2 — 1867.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
14th February 1867.

No. 160. Read the following Proceedings of the Madras Government in the Public Works Department:—

Forwarding to Home Government further papers on the comparative advantages of an extension of the South-West Line to Calicut and Cochin. } (Here enter 7th February 1867, No. 382.)

No. 161. ORDER THEREON, 14th February 1867, No. 366.

Miscellaneous.

Communicated to the Revenue Board.

(True Extract.)

(Signed) J. GROSE,

Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 382.

Exd. T. O'Connor.

Proceedings of the Madras Government, Public Works Department, 7th February 1867.

No. 126. Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 29th November 1866, No. 449:—

I have the honor to forward a report by the Chief Engineer and Acting Agent and Manager of the Madras Railway, on the comparative advantages of an extension of the South-West Line to Calicut and Cochin. The information conveyed is valuable and interesting, but as the Government have ruled* that it rests with the Board of Directors to initiate action in the matter, I do not feel called upon to express an opinion on the merits of either route.

No. 540, dated 5th November 1866.

* G. O. No. 1,574, 16th May 1866, Para. 4.
Do. ,, 3,199, 9th October 1866, Para. 4.

From the Acting Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 5th November 1866, No. 540.

1. Referring to the Proceedings of Government, dated 16th May and 9th October, respectively, and to Major Shaw Stewart's remarks on the subject of an extension of the South-West Line to Calicut, I have the honor to submit the following observations:—

2. I concur with that Officer in thinking that any further expenditure on the Beypoor Pier would be a waste of public money. The experience of the past three years has convinced me that even if the formation of a convenient boat harbour within the reef were practicable, very little advantage would attend it, inasmuch as the sea breaks so heavily near its entrance in bad weather that no boat dare approach it, while in fine weather, cargo boats and rafts can cross the bar and reach our locomotive wharf, near the fuel shed, with as much ease as they can enter the harbour Both means of access to the shore have, however, deteriorated, during the past season, to such an extent as to render it a matter of some difficulty to land cargo except in the finest weather. On a recent occasion, when there was very little sea on, a steamer had to land specie near Captain Hurst's house, nearly two miles from the station, because there was not sufficient water to carry the boats safely over the bar, and similar difficulty has been experienced in landing coal ex "Andromeda," the discharge of which ship is now being proceeded with.

3. Under these circumstances, it is highly desirable that Beypoor, whose chief attraction I imagine to have been its supposed capabilities as a harbour, should cease to be the western terminus of the Madras Railway, and the selection of a more eligible site is the next question to be considered. I have inspected the line to Calicut, and have obtained from the Acting Chief Engineer an estimate of its cost, and from the Traffic Manager an estimate of the probable returns.

4. The formation of the line would necessitate the destruction of much valuable property in the shape of cocoanut trees and gardens, especially in the neighbourhood of Calicut, and the amount debitable to compensation would unavoidably be large. In order to do as little damage as possible, I should propose to run along the beach at Calicut, and to have the station beyond the French territory. The bridge at the Beypoor river would be 1,650 feet long, and the cost, including that of a draw bridge, would be Rupees 3,35,200. I have obtained a section of the bed, and the deepest part at low water is 20 feet. The only other river of any magnitude is the Kalai, the bridging of which would cost Rupees 66,000.

5. The rest of the line is estimated to cost Rupees 70,000 per mile by Mr. Pinson, but I think this may be reduced to Rupees 60,000, as the large bridge and terminal buildings are excluded. The present Beypoor Station, inclusive of Goods shed, Engine shed, and all other buildings, has cost, in round numbers, Rupees 3,38,000. The traffic arrangements at Calicut would have to be quite as extensive as they are at Beypoor, and we could not economize much on the locomotive requirements, as it would be necessary to stable the engines at Calicut. Deducting the cost of the circular engine shed, fuel shed, and locomotive workshops, which would all continue to be useful at Beypoor, the station would cost, say, Rupees 2,60,000.

6. The estimate then stands thus—

Beypoor river bridge	Rupees	3,35,200
Kalai do. do.	,,	66,000
Seven miles of Line, at Rupees 60,000 per mile	,,	4,20,000
Terminal station...	,,	2,60,000
Total Rupees		10,81,200

say eleven lacs.

7. The Traffic Manager, in a letter dated the 11th June, gives his opinion of the returns to be expected in the following terms:—

"The Acting Chief Engineer, in his letter to your address, No. 253 of 23rd May, estimates the "probable cost of the extension at Rupees 10,99,996. In this estimate is included the cost of "engine-running sheds, bungalows, &c., for enginemen at Calicut, which might probably be "saved, by working the extension between Beypoor and Calicut as a branch line, thereby reducing "the estimate to, say, Rupees 9,64,387.

"The interest on this sum at five per cent. is Rupees 48,219; if to this be added a similar sum "for working expenses, a traffic yielding a revenue of not less than Rupees 96,438 per annum "will be required to pay the guaranteed interest.

"The traffic in and out of Beypoor station for the last year was 131,106 passengers and "29,228 tons of goods; ninety-six per cent. of the passengers and the whole of the goods traffic would "certainly pass over the extension, and we may, therefore, safely calculate on the existing traffic as "the minimum of traffic between Beypoor and Calicut.

"Taking the passengers at 3 Pies per mile, and the goods at 14 Pies per ton per mile, we have "the following result:—

131,106 passengers at 1 Anna 9 Pie	Rupees	14,340
29,228 tons of goods at 8 Annas	,,	14,614
Miscellaneous traffic	,,	1,447
Total Revenue...	,,	30,401
Deduct 50 per cent. for working expenses	,,	15,200
Net profit...	,,	15,200

"equivalent to one and a half per cent. on the outlay. I have estimated the working expenses at "fifty per cent. of the revenue, but this, I fear, would be under the actual cost with so small a traffic.

"The facilities offered by this extension would doubtless increase the "through" traffic. A "local traffic is of course out of the question, for, as Major Stewart justly observes, Beypoor is 'unin-"habited save by the employés of the Railway,' but the prospect of the extension paying a fair "interest on the money expended is, in my opinion, very remote."

8. Within fifty miles of Calicut, on the line of coast to the north, there are three large towns, Wuddakerry, Tellicherry, and Cannanore, the last a Military station, and all, I am informed, places of considerable trade; and, in my opinion, the success of a line north of Beypoor would be contingent on extension to Cannanore. It would, however, labor under the disadvantages common to all coast lines, and, as regards facilities for shipping, I am not aware that any of the ports I have named are much superior to Beypoor.

9. A line of Railway from the South-West Line to Cochin having been frequently spoken of, I have examined two routes from Shoranoor, one proceeding to Narrakal and Vyepeen point, and the other to Ernacollum. The first was projected last year by some gentlemen connected with Bombay and Cochin, and a preliminary survey was made by Mr. Sanderson. It was intended to cross the Ponany by the new Government bridge at Shoranoor. It follows very closely the present road to Trichoor, proceeds thence nearly due south to Chundamungalum, where it crosses the first back-water and, passing close to Purraur, crosses the second back-water near the village of Shukkurcudu. From this point it runs along the narrow strip of land between the sea and the back-water to Narrakal, (called on the Trigonometrical Map Veearakul,) to Vyepeen point. The first part from

Proceedings of the Madras Government, Public Works Department, 7th February 1867.

Shoranoor to a village called Veullapye, a distance of twelve or thirteen miles, would involve heavy work, though Mr. Sanderson in his report says the two worst gradients would be 1 in 137 and 1 in 200. I think a better line might be got by proceeding west from Shoranoor Station, and doubling round the spur of the hills near the village of Trichoor, and running thence south to Nillowye. I was unable to examine this part of the line, owing to all the streams being flooded after heavy rains, but I rode over the ground from Nillowye to Trichoor (Trichoowapayroor on map) and found it an easy country.

10. The second line coincides with the first as far as Munvawullachayree; on the main road at this point it diverges slightly to the east, crosses a large river near Eyerur, another near Veeliatthanad, and the Aklywye river near Wurrukumbaughum, leaving the southern branch of the river to the east, and running straight to Ernacollum.

11. My reasons for preferring the second line to Mr. Sanderson's are, first, that by keeping inland we should secure a considerable local traffic, which would otherwise be lost; second, that we should exchange the crossing of the two back-waters, divided by a low tract of alluvial deposit, on which the formation of a Railway embankment would be a matter of some difficulty and considerable expense, for comparatively easy river crossings; third, that the strip of land from Narrakal to Vyepeen is by no means secure. The sea having breached it in two places already, works of an expensive nature would be necessary to protect the Railway; and, lastly, that by going to Ernacollum we should always be in a position, if desirable, to extend the line into Travancore. These advantages, I think, out-weigh the single one we lose in not going nearer to Narrakal. There are twelve feet of water over the bar at Cochin at low tide, and during eight months in the year vessels of considerable size and steamers can enter the harbour and discharge cargo within its shelter; during the prevalence of the south-west monsoon they can discharge at Narrakal, and passengers and cargo might be transhipped into boats, or a small steamer placed on the canal that has been cut from the back-water, and be conveyed thence to a Railway wharf at Ernacollum.

12. So far as I can form an opinion from the information at my command, I estimate the cost of the Line as follows:—

Sixty miles of Line, including bridges, at ...	Rupees 70,000 =	42,00,000
Terminal buildings	,,	3,50,000
Rupees ...		45,50,000

The promoters of the Line, to whom I have referred above, obtained much detailed information respecting traffic. They state that while for every lineal mile of the Madras Railway from Salem to Beypoor there are only 110 persons, for every mile of the proposed Railway there are 180, taking in the hill tracts; but taking the district through which the Line passes, there are 290 per square mile. Statements of imports and exports and of road traffic were obtained from the local authorities, and estimating the Line to cost forty lacs, and the working expenses to be sixty per cent., a net revenue of seven per cent. was calculated on. This, in my opinion, is more than the returns justify.

13. It has been assumed that the travelling part of the community varies as the population, but this is not a fair assumption, for it is well known that while females travel largely on the East Coast, they rarely travel by rail on the West; on the other hand, the abundance of wood in Cochin would warrant a reduction in the working expenses. Taking the data obtained by the original promoters of the Line from official sources, we have the following estimate of traffic:—

	Rs.	A.	P.
Goods traffic, 14,449 tons conveyed an average distance of 47 miles = 579,103, at Rupees 1-6-0	54,291	0	0
Passenger traffic	3,60,000	0	0
Specie, 20,00,000 Rupees, at ½ per cent.	2,500	0	0
Miscellaneous	25,000	0	0
Rupees ...	4,41,791	0	0
Deduct 50 per cent. for working expenses ...	2,20,895	8	0
Net Revenue ...	2,20,895	8	0

Estimate of traffic based on a return of goods traffic taken during a fortnight—

	Rs.
32,474 tons conveyed an average distance of 30 miles = 974,220 miles, at 1¼ Annas	91,333
Passenger traffic as before	3,60,000
20 lacs at ⅛ per cent.	2,500
Miscellaneous...	25,000
	4,79,833

14. In these estimates the receipts from passengers are, I think, over-estimated, while those from goods are certainly under the mark. In neither is any account taken of the effects of the opening of through communication with the East Coast, viâ Trichinopoly, nor of the alterations in the excise duties on salt, now in contemplation by the Legislature, though these events could not fail to be productive of highly beneficial results. An estimate based on the receipts of the South-West Line for 1865 will probably inspire more confidence than the foregoing, though I don't think it will do justice to the case in point. It is as follows :—

	Rs.
Goods	2,64,000
Passengers	1,68,000
Miscellaneous and Specie	27,500
	4,59,500

allowing fifty per cent. for working, we have something over five per cent.

15. The construction of this Line would no doubt tend to develope the trade of Cochin, and cause Narrakal to be more largely resorted to as a port of shipment and refuge than it now is. It is more than probable that its great natural advantages would induce some one of the numerous Steamship Companies that have sprung into existence of late years to establish a line of steamers for freight and passengers thence to Aden and Suez. It is unquestionably the most convenient part in Southern India for such a Line, as the following table of distances will show :—

In the North-East Monsoon	Miles.
Aden to Bombay...	1,650
Bombay to Madras by rail.	850
Total...	2,500
Aden to Cochin...	1,850
Cochin to Madras by rail	420
Total...	2,270
In the South-West Monsoon.	
Aden to Bombay....	2,230
Bombay to Madras.	850
Total...	3,080
Aden to Cochin	2,000
Cochin to Madras	420
Total...	2,420

16. The advantages of Narrakal as a port of refuge are so well known, and have been brought so prominently before the public in the Proceedings of Government, dated 26th July and 20th December 1861, that I need not occupy your time by entering on this subject. I hope I have said enough to show that the question of making Cochin our future terminus is well worthy of consideration.

Proceedings of the Madras Government, Public Works Department, 7th February 1867.

No. 127. ORDER THEREON, 7th February 1867, No. 382.

RAILWAY, No. 8.

Ordered that these papers be forwarded to the Right Honorable the Secretary of State for India in continuation of previous correspondence.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways.
" Revenue Department.
" Collector of Malabar.

Exd. S. T. Augustin.

Rec'd 23rd October 1866 No. 535 & 536

Prov. 1867 - Dispatch
Proof of Gabt for Telegram
No. 347.
Proceedings in the
P. M. Dispatch.

Dated 3rd July
Received 11th July 1867.

No. 382.

11

Forwarding to Home
Govt. further papers on
the comparative advantages
of an extension of the
S.W. Line to Calicut and
Cochin. — 11

No. 366 - 11th July
With order

No. 366.

(illegible)

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14th July 67.

14 Copies Tattie Esq Rec'd with Dis No. 382 Despd 14th

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A. 160 & 161

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