[61]

Govt. of 18 | Madras.

To The Secy
Rly Branch

Proceedings, dated 8 — 12 — 1890
No. 895

Subject.
B. No. 1978 R 39th Dec 1890.

Requesting the Govt to arrange to place Rs 7150 at the disposal of the agent & Manager Madras Ry thro' the Rly (Rly) dept from Provl funds.

B No 1978 R 39 Dec 1890

6/12/90

Communicated to the Consulting Engineer for Railways with reference to Progs: No: 1767 R dated 11th November 1890

Sec R

No 1767-60 R dy 11.11.90.

Dec 1890

To The Consg Engr for Rys
Exam. P. W. Accts
do Dy. Rly. Accts.

D 19/12

No 44.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

G.O., dated 9th October 1890, No. 1494 R., Public Works.

Order—dated 9th October 1890, No. 1494, R., Public Works.

The Consulting Engineer for Railways is requested to obtain from the Agent and Manager, Madras Railway, information with regard to the cost at which that Company would carry out the survey for a broad gauge line of railway from Bezváda to Masulipatam.

(True Extract.)

(Signed) T. GRACEY, Lt.-Col., R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following papers :—

From the Collector of the Kistna District, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Masulipatam, 16th October 1890, No. 7531.

In compliance with your request, I have the honor to forward copy of a memorandum (with five spare copies) which I have drawn up to supply Colonel Lindsay, R.E., the Agent and Chief Engineer, South Mahratta Railway, with the information he desired as to the prospects of an extension of the South Mahratta Railway across the river Kistna, *via* Bezváda, through the delta to Masulipatam. A map of the line the extension should take is also enclosed.

2. I would venture to urge strongly upon Government the advisability of an immediate survey of this extension. It is an essential to the completeness and finality of the South Mahratta Railway east of Guntakal as a famine protective line. It will not only give this famine protective line a long base through the grain-producing delta, but will also afford a stretch through a rich country of 50 miles that will probably pay well and form a satisfactory termination to the non-paying line through Kurnool and the uplands.

3. The line whether constructed by the South Mahratta Railway or by the Madras Railway will be an incalculable boon to the eastern delta of the Kistna district. The Western delta will be traversed by, and will prosper exceedingly through, the railway extension from Bezváda to Nellore and Madras. The Eastern delta between Bezváda and Masulipatam with a still greater area under irrigation requires the railway extension to Masulipatam for its full and prosperous development.

ENCLOSURE.

MEMORANDUM on a proposed extension of the South Mahratta Railway to Masulipatam.

The temporary terminus of the South Mahratta Railway in the Kistna district is now opposite Bezváda on the right bank of the river Kistna where alone it abuts on the delta. The two hundred odd miles of this railway through the Kurnool and Kistna districts were constructed as a famine protective line and not as a remunerative commercial undertaking. Any proposed extension therefore that renders this line more effective for famine protection is justified by the Railway's *raison d'etre*, and if such extension promises at the same time to be commercially remunerative in a way that no other portion of the line ever can be, it is deserving of a careful consideration.

2. The construction of the Kistna bridge at Bezváda has now been formally commenced. This great bridge—to be three-quarters of a mile in length—is prominently connected with the East Coast Railway which is eventually to run from Madras *viâ* Bezváda to Cuttack and Calcutta. It should, however, be borne in mind that it was originally approved in 1883 by the Secretary of State as a necessary continuation of the South Mahratta, or as it was then called—the Bellary-Kistna—Railway. It will be railed for both broad and narrow gauge.

3. The first effect of the bridge will be that all traffic on the South Mahratta Railway will pass over the bridge to and from Bezváda and that a station for goods and passengers must be provided on that side of the river. From this point the East Coast Railway passes away to the north-east, skirting the Ellore canal and the fringe of the Eastern Kistna delta, into which, however, it does not enter.

4. The Eastern delta irrigates over 2,20,000 acres of rice land and this area will steadily increase to a maximum of 2,70,000 acres or over 400 square miles. It is tapped by one main navigable canal to Masulipatam and a branch that connects it with the Godávari canal system. The main canal runs for half its length near and parallel to the river and is thus of less use for the export of grain than it would be if it passed more centrally through the delta.

5. The railway extension has a great tract of rice-growing country invitingly open to it, which is not served by a navigable canal. The line would pass through a series of important towns and villages, and would finally reach Masulipatam, the capital of the district, after a course of 50 miles, which is almost the same length as that of the main canal.

6. A reference to the map will show that the railway should leave Bezváda by crossing the Ellore canal as soon as practicable. Ample room is available for additional sidings and wharves if more be needed. The line will run between the Ellore and the Ryves canal till it crosses the high road about the ninth mile not far from the villages of Nidamannur (population 1,150), Velpur and Done-Atkur. Five miles further on it reaches Tenneru (p. 1,180). Five miles further is Ventrapragada (p. 2,582), and after another five miles comes Gudiváda (p. 4,040), the chief town of the taluk. Then follow Angalur (p. 1,700) and Vinnakota (p. 1,800) at six miles distance, next at about the same distance is Kowtaram (p. 2,400) on the branch canal. Vadlamannad (p. 1,100) comes next, and then seven miles from Kowtaram is the large business centre of Peddana (p. 4,400). Thence to Masulipatam is six miles.

7. Every village above named lies in the midst of a richly-irrigated rice-growing country which is steadily increasing in population and in wealth, and lacks nothing so much as means of communication. The nature of the soil—a black silt—renders road-making costly and difficult. Railway feeders are therefore more suitable to the conditions of the delta than through lines of high road.

8. Masulipatam, the chief town of the district, and its port would be the terminus of this branch of the South Mahratta Railway. At the census of 1881 it was a town of 7,700 houses with a population of 35,000. The houses now newly numbered for the approaching census have increased to 10,480, and taking the same average number of occupants per house as before, the population should now stand at 48,000. The town is the official head-quarters of the district and holds the Judge's and District Munsif's Courts, the Collector's and Deputy Collector's cutcherries, the District Registrar's and other public offices, which cause a large flow of people on public and private business. There are several flourishing Mission agencies under the Church Mission Society. In educational institutions it possesses the Noble College about to be raised to the first grade, a Hindu High school, a normal Training school for the whole district, and minor scholastic agencies for male and female education.

9. The port of Masulipatam is inferior as far as natural facilities are concerned, steamers and ships have to lie six to seven miles out, as at Cocanada and Tuticorin, and there is a bar to cross. But the port has been undeservedly neglected in the past, and it is only within the last two years that an iron shed has been erected by Government to shelter goods from wind and weather. It has been asserted that the bay is shoaling up, but the investigations of the late Port officer, Mr Fletcher, do not support this view; the anchorage for ships and steamers is no further out than of old, and it is shown that whereas the cargo boats of 1858 carried only 12 tons, the present boats carry from 16 to 25 tons, so that there is no shoaling up of the bar.

10. In spite of neglect and natural defects, the trade of Masulipatam has steadily increased for many years past as the following figures will show:—

—	1870-71.	1875-76.	1880-81.	1885-86.	1887-88.	1889-90.
Tonnage..	47,000	1,37,000	1,80,900	2,22,900	3,42,000	Not given.
	RS.	RS.	RS.	RS.	RS.	RS.
Imports	13,49,978	29,67,129	22,96,706	27,36,369	29,48,082	34,56,046
Exports	4,76,060	11,68,229	10,91,641	8,12,052	15,17,101	12,38,443
Total ..	18,26,038	41,35,358	33,88,347	35,48,421	44,65,183	46,94,489

There is a large export trade in rice to Negapatam and Ceylon mainly in native craft and there seems every likelihood that this special trade will continue to increase. Masulipatam, will be the nearest port from Secunderabad to Burmah and the quickest route for the passage of troops. It is also the nearest port for the supply of Singaréni coal either to Government or to the public.

11. The tonnage of goods carried on the canal between Masulipatam and Bezváda in 1889-90 was 32,989 tons; the passenger traffic for the same period was 70,014, mainly between the terminals. This latter would all be taken by the railway and largely increase owing to greater convenience and saving of time. There would also be added the passenger traffic between the intermediate stations. The passage by canal takes less or more than 24 hours according to whether it is down stream or up. The boats are very crowded and inconvenient. The railway would give farmers the power to hold back their rice in their own granaries till such time as is most convenient to sell, instead of being obliged to get rid of it during the three months when the delta is dry and passable for carts. It must be remembered that all the canals of the district are closed for three months from March to May inclusive, during which time all traffic is by road. The road traffic returns between Bezváda and Masulipatam for the year 1889-90 are as follows:—

	Goods. MDS.	Passengers.
Bezváda	4,19,687	34,543
Masulipatam	3,55,101	32,561
Total .	7,74,788	67,104
Average ...	3,87,394	33,552

12. There are Salt factories at Manganapudi, 7 miles north of Masulipatam, which yield 2,00,000 maunds per annum, all of which is now taken inland either by canal or on pack bullocks.

13. Mr. Furnivall, the late Agent and Chief Engineer of the Nizam's State Railway, in a note on a proposed extension of that line to Masulipatam was "strongly of opinion that the line will pay well. The line would be very level and would consequently be worked very cheaply." His rough estimate of the total cost including stations, rolling-stock and establishment was Rs. 64,000 per mile of *broad* gauge, or 32 lakhs for the 50 miles.

14. In conclusion, it may be remarked that the railway extension now discussed occupies a totally different position from that of any other portion of the South Mahratta Railway east of Guntakal. That line was made as a protection against famine; it runs through uplands that depend on the rainfall for existence, and it is not likely to be financially remunerative for a long period. The extension to the sea completes the line as a famine protective work by giving it a base of 50 miles through a rich and never-failing rice country. Furthermore, as the delta is rapidly increasing in wealth, in population, and in the productive area under irrigation, and as the terminal points are the important towns of Masulipatam with over 40,000 inhabitantsand Bezváda with over 15,000, there is every prospect that Mr. Furnivall's forecast will prove accurate.

15. The extension would complete all the railway schemes that have been proposed for the Kistna district and would give a still stronger impetus to the progress of the district which is now by means of its great delta irrigation, its canals and its railways, entering on a remarkable career of prosperity, and which already has a land revenue of 49½ lakhs of rupees or considerably more than any other district in the Madras Presidency.

16. The Board of Revenue in a report on the financial aspects of this line as a branch of the East Coast Railway (B. P. 113, 24th April 1890, Revenue Settlement) remark:—

"A consideration of the existing traffic along the present lines of communication between Bezváda and Masulipatam and of the further circumstances that the proposed line of railway between these towns will run for its whole length of 49 or 50 miles through a rich and exceptionally well-irrigated country, with a large population, that it will connect Masulipatam, a town with a population of 35,000 inhabitants, and already possessed of a large export trade, with a railway tapping the Nizam's country and another tapping the Ceded Districts, the Board has no

hesitation in stating its conviction that the line would be a financial success in itself and would further improve the financial prospects of any line with which it was connected."

MASULIPATAM,
7th October 1890.

(Signed) A. T. ARUNDEL,
Collector.

From the Consulting Engineer for Railways, dated Madras, 24th October 1890, No. 716.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 21st October 1890, No. 6630/1091.

[Your endorsement No. 925, dated 10th October 1890, to Proceedings of Madras Government, No. 1494 R., dated 9th October 1890.]

I have the honor to inform you that the cost of surveying a broad gauge line by this Company's officers from Bezváda to Masulipatam is estimated by the Chief Engineer at Rs. 143 per mile, for a distance of 44 miles equal to in all Rs. 6,292.

2. The survey could be undertaken by the party now at work on the Madras-Gúdúr survey immediately on completion of that work, which may be expected to be in about two months' time.

Submitted to Government, with reference to Proceedings of Government, No. 1494 R., dated 9th October 1890.

ORDER—dated 11th November 1890, No. 1767 R., Public Works.

The Government observes that the distance from Bezváda to Masulipatam is 50 miles and not 44 as stated by the Agent and Manager, Madras Railway, and the total cost will therefore be, at Rs. 143 a mile, Rs. 7,150 and not Rs. 6,292.

2. The estimate for Rs. 7,150 is sanctioned, and this amount will be met from Provincial revenues. The Financial Department will therefore make the necessary arrangements to have this sum placed at the disposal of the Agent and Manager, Madras Railway.

3. The Agent and Manager, Madras Railway, will be requested to proceed with the survey on the lines laid down in the letter from the Collector of Kistna read above, and copy of the plan submitted therewith will be forwarded for his guidance in making the survey.

4. A copy of these Proceedings will be forwarded for the information of the Government of India.

(Here enter No. 1768 R., dated 11th November 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, East Coast Railway Accounts.
" Examiner, Guaranteed Railway Accounts.
" Examiner, Public Works Accounts.
" Financial Department.
" Revenue Department.
" Engineer-in-Chief, East Coast Railway, for information.
with reference to his telegram, dated 22nd August 1890.

Exd. P. L. Pereira.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 11th.

Recd. *Encl.*

G.O., 11th Nov. 1890, No. 1767 R.

NOVEMBER.

Survey for a broad gauge line of Railway from Bezvada to Masulipatam

The estimate of Rs. 7,150, being the cost of a —, sanctioned, and certain instructions issued as to the prosecution of the survey.

Fin Cus 2061/6

Financial Department

Order 2d Decr 1890 No. 895

The Accountant General will arrange to place the sum of Rs 7,150 (Seven thousand one hundred & fifty) at the disposal of the Agent and Manager Madras Railway, through the Public works (Railway) Department from Provincial funds.

(True extract)

Chief Secretary.

To The Public works (Railway) Department
" Accountant General

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 19th.

Recd. *Encl.*

G.O., 19th Nov. 1890, Nos. 1837, 1838 R.

NOVEMBER.

Branch Railway between Bezvada and Masulipatam

Inviting attention to Proceedings of this Government in which the Madras Railway was authorized to carry out the survey for the proposed —, the results of which will be reported to the Government of India when finished.

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

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Order 2° Deer ~~November~~ 1890 No. 895

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Fin Cus 2061/6

To
The Public Works (Railway) Department
" Accountant General

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper:—

G.O., dated 2nd September 1890, No. 1298 R., Public Works.

Read again the following paper:—

G.O., dated 10th June 1890, No. 813 R., Public Works.

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 24th April 1890, No. 113.

MR. CLOGSTOUN.

Read—again Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 14th December 1889, No. 564.

ABSTRACT.—Submitting to Government a review on the East Coast Railway project as a famine protective requirement and as a commercial project.

Read—also endorsement of Revenue Department, dated 1st February 1890, No. 747, forwarding, for inquiry and report, Government Order, Public Works Department, communicating Government of India letter forwarding a memorial from the inhabitants of Masulipatam for extending the East Coast Railway from Bezváda to Masulipatam.

Resolution—dated 24th April 1890, No. 113.

The Board in its Proceedings, No. 564, dated 14th December 1889, Land Records and Agriculture, dealt with the financial aspect of the projected East Coast Railway between Bezváda and Cuttack (1) as a famine protection requirement and (2) as a commercial project. It will now, as required, submit the result of its inquiry into the financial prospects of the proposed branch line between Bezváda and Masulipatam. The inquiry has proceeded on the assumption that the line between Bezváda and Masulipatam is to be undertaken as a branch of the East Coast Railway, and not merely as an alternative line for bringing the Guntakal-Bezváda line and the Nizam's State Railway to Bezváda in connection with a sea-port. The Board considers that the connection of the Bezváda terminus of the two lines referred to with a sea-port is a matter of vital importance to the financial success of these two famine lines, and that the non-connection would greatly militate against their usefulness in a time of famine, but if this connection is given by the construction of the East Coast Railway as far even as Cocanada only it will be sufficient to consider the proposed line from Bezváda to Masulipatam on its merits as a commercial undertaking.

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Financial Department

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NOVEMBER.

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(True extract

Chief Secretary)

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" Accountant General
2nd D.D.

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2. A description of the country through which the proposed line would pass with particulars of the large villages it would touch in its course is given in Mr. Arundel's letter, printed in Board's Proceedings, No. 564, dated 14th December 1889, already referred to. The country traversed through the whole distance of 50 miles between Bezváda and Masulipatam is a rich rice-growing country splendidly irrigated, with a population of 216 to the square mile and studded with rapidly-growing and prosperous towns and villages, the following of which would be touched in order by the line on its way from Bezváda :—

	Population (Census of 1881).	Distance in miles from Bezváda.
Nidamanur	1,150	7
Tenneru	1,180	
Uppaluru	Not given.	6
Mantina	Do.	
Ventrapragada	2,582	
Pamalapad	Not given.	6
Kalavapamula	Do.	
Gudiváda	4,040	5
Anjalur	1,700	
Vinnakota	1,800	6
Kowtaram	2,400	5
Vadlamannad	1,100	5
Pedana	4,400	4
Masulipatam	35,000	5

3. The proposed line will, under the orders of Government, be surveyed by the staff of the East Coast Railway now working in the district, but it has already been carefully examined by Mr. Furnival, the late Agent and Chief Engineer of the Nizam's State Railway, and his statement that the line would be very level and would consequently be worked very cheaply may safely be accepted. He further expressed a strong opinion that the line would pay well.

4. After a consideration of the character of the country through which the line passes and the density of its population, the chief means available for determining the extent of the probable traffic of such a line are a consideration of the statistics of present traffic on the lines of communication at present passing through the country. The available statistics bearing on this point are the following :—

(i) Statistics of traffic on the canal running along the line to be traversed by the railway ;
(ii) Statistics of traffic on the roads along the same line ; and
(iii) Statistics of the imports and exports by sea at Masulipatam, the proposed sea-port terminus of the branch line, and of the exports and imports by the existing lines at Bezváda.

(i) *Canal traffic.*—The traffic on the canal running between Bezváda and Masulipatam, a distance of 49 miles, is registered by the Public Works Department. The latest returns give the traffic for the year 1888-89, or rather for the nine months, June to February, both inclusive, during which the canal is open, as follows

Ton mileage	2,730,691
Passengers	58,189

giving an average tonnage per mile of 55,728 tons.

The ton mileage of the previous year was 3,424,656, giving an average tonnage per mile of 69,890. The number of passengers registered in 1887-88 was 58,417 as compared with 58,189 in 1888-89.

The traffic in 1888-89 was carried in 1,580 laden boats [as against 1,724 in 1887-88] and consisted mainly of food-grains, salt, cotton, oil-seeds, nuts and oil, hemp, building materials, fuel, timber, bamboos, piece-goods, metals, tobacco, indigo, salt-fish, leather, shells and cash. The decrease as compared with the year 1887-88 is attributed to the opening of the Nizam's State Railway to Bezváda and to a diversion of a great part of the trade in oil-seeds from Masulipatam to the Nizam's country.

(ii) *Road traffic.*—The traffic on the road between Bezváda and Masulipatam has been registered by the Traffic Registration establishment for the whole of the twelve

months ending 31st March last. A statement of the traffic is given in Appendix I, of which the following is an abstract :—

Stations.	Merchandise. 1. mds.	Passengers.
Bezváda	419,687	34,543
Masulipatam	355,101	32,561
Total ...	774,788	67,104
Average ...	387,394	33,552

Converted into tons the average weight carried over the road is 14,230 tons.

The total tonnage per mile, taking both canal and road traffic together, amounts for 1888-89 to 70,000 tons as compared with 96,773 tons, the tonnage per mile carried by the South Indian Railway in 1888.

(iii) *Imports and exports of the port of Masulipatam.*—The value of the imports and exports by sea of the port of Masulipatam during the past fourteen years are shown below :—

Years.	Imports. Foreign.	Imports. Coasting.	Imports. Total.	Exports. Foreign.	Exports. Coasting.	Exports. Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1875-76	9,023	11,59,205	11,68,228	9,71,496	19,95,632	29,67,128
1876-77	3,526	11,22,312	11,25,838	3,38,537	22,86,464	26,25,001
1877-78	7,712	13,84,685	13,92,397	2,78,369	20,65,293	23,43,662
1878-79	13,401	12,88,303	13,01,704	2,20,380	13,36,000	15,56,380
1879-80	1,817	10,42,328	10,44,145	6,31,437	19,02,332	25,33,769
1880-81	8,939	10,82,063	10,91,002	5,18,249	17,77,517	22,95,766
1881-82	5,454	7,82,932	7,88,386	1,88,896	16,50,911	18,39,807
1882-83	12,393	9,69,889	9,82,282	35,136	14,65,007	15,00,143
1883-84	8,009	9,12,161	9,20,170	1,86,451	15,78,432	17,64,883
1884-85	7,015	10,37,778	10,44,793	1,72,761	26,33,244	28,06,005
1885-86	11,529	8,00,523	8,12,052	2,38,029	24,98,340	27,36,369
1886-87	5,722	15,11,372	15,17,094	2,32,755	27,15,327	29,48,082
1887-88	7,645	12,33,038	12,40,683	3,89,758	26,71,784	30,61,542
1888-89						
Average ..	7,925	11,01,410	11,09,335	3,39,639	20,85,079	24,24,718

Exports.

Grain and pulse.
Castor.
Dyeing and coloring materials.
Gingelly.

Imports.

Gunny bags.
Liquors.
Grain and pulse.
Cotton, twist and yarn and piece-goods.
Oils.

The average value of the imports amounts to Rs. 11,09,335 and that of the exports to Rs. 24,24,718. The chief articles of export and import during the past two years are shown in the margin. The bulk of the export trade is in grain and pulse and in oil-seeds. The imports are chiefly piece-goods, gunny bags, liquors and oils.

5. The rail-borne traffic passing between the Kistna block and the Nizam's territories since the opening of the Nizam's Railway to Bezváda in November 1888 is shown in the annexed statement. A portion of the traffic in the last quarter represents traffic between the Kistna block and the small portion of the Kurnool district served by the portion of the Bellary-Kistna Railway between Cumbum and the Kistna frontier opened in October 1889.

Trade with Kistna block for the quarters ending

		31st December 1888.	31st March 1889.	30th June 1889.	30th September 1889.	31st December 1889.
		I. mds.	I. mds.	I. mds.	I. mds.	I. mds.
External trade	Imports	2,852	1,163	1,377	20,457	51,406
	Exports	..	330	5,454	175,769	216,653
Internal trade		..	174	127	287	8,790

The traffic shows a great development in the last two quarters, and as the great bulk of the export traffic (216,653 Indian maunds) during the quarter ending 31st December 1889 consisted of grain and pulse (135,000 maunds), chiefly rice, and salt 44,000 maunds, all of which articles are largely produced in the country that would be served by the Bezvádá-Masulipatam branch, it seems certain that the branch would have a large and increasing trade in these articles.

6. A consideration of the existing traffic along the present lines of communication between Bezvádá and Masulipatam and of the further circumstances that the proposed line of railway between these towns will run for its whole length of 49 or 50 miles through a rich and exceptionally well-irrigated country, with a large population, that it will connect Masulipatam, a town with a population of 35,000 inhabitants, and already possessed of a large export trade with a railway tapping the Nizam's country and another tapping the Ceded districts, the Board has no hesitation in stating its conviction that the line would be a financial success in itself and would further improve the financial prospects of any line with which it was connected.

To the town of Masulipatam itself it would seem that the line is essential if it is not to see its trade entirely diverted by the East Coast Railway to the rival port of Cocanada.

(A true Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

APPENDIX I.

STATEMENT showing the road traffic registered at Bezvádá and Masulipatam during 1889-90.

Route on which traffic was registered.	Stations.	Direction of traffic.	LONG DISTANCE TRAFFIC.									Remarks.
			Total merchandise.			Animals.			Passengers.			
			During April, May 1889 and March 1890 when canals were closed.	During the months from June 1889 to February 1890 when they were opened.	Total.	During April, May 1889 and March 1890 when canals were closed.	During the months from June 1889 to February 1890 when they were opened.	Total.	During April, May 1889 and March 1890 when canals were closed.	During the months from June 1889 to February 1890 when they were opened.	Total.	
			I. MDS.	I. MDS.	I. MDS.	NO.	NO.	NO.	NO.	NO.	NO.	
Between Masulipatam and Bezvádá.	Bezvádá ..	From Bezvádá ..	25,926	13,544	39,470	193	1,889	2,082	3,990	9,685	13,675	The distance between Bezvádá and Masulipatam is about 44 miles by road.
		To Bezvádá ..	232,785	147,432	380,217	668	963	1,631	4,194	16,674	20,868	
		Total ..	258,711	160,976	419,687	861	2,852	3,713	8,184	26,359	34,543	
Between Masulipatam and Bezvádá.	Masulipatam.	From Bezvádá ..	167,213	172,229	339,442	..	..	..	5,950	26,611	32,561	
		To Bezvádá ..	12,240	3,419	15,659	..	..	..	..	..	..	
		Total ..	179,453	175,648	355,101	..	..	..	5,950	26,611	32,561	

No. 3333, Revenue.

Transferred to the Public Works Department with reference to para. 1 of its Order, No. 1415 R., dated 20th December 1889, with an expression of concurrence in the opinion of the Board of Revenue.

OOTACAMUND,
2nd June 1890.

(Signed) C. A. GALTON,
Secretary to Government.

Order—dated 10th June 1890, No. 813 R., Public Works.

Ordered that the following letter be forwarded to the Government of India.

(Here enter No. 814 R., dated 10th June 1890.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Letter from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated 10th June 1890, No. 814 R.

I am directed to acknowledge the receipt of your letter, No. 939 R.C., dated 27th September 1889, forwarding, for the views of His Excellency the Governor in Council, a memorial from the inhabitants of Masulipatam, praying for the extension to their town of either of the railway lines terminating at Bezváda.

2. In reply, I am directed to submit, for the information of the Government of India, the accompanying Proceedings of the Board of Revenue, No. 113, dated 24th April 1890, embodying a report with statistics as to the financial aspects of the proposed extension.

3. The Engineer-in-Chief of the East Coast Railway Survey has been requested to have the probable alignment reconnoitred with a view to estimate approximately the probable cost of the branch line, and on receipt of his reply the Government of India will be again addressed on the subject.

Read also the following papers:—

From the Officiating Assistant Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, the 9th August 1890, No. 699 R.C.

With reference to your No. 814 R., dated 10th June 1890, regarding the proposed branch railway between Bezváda and Masulipatam, I am directed to inquire when the further report on the subject may be expected.

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When may the report asked for in para. 2 of G.O., 1415 R., 20th December 1889, be expected. Please wire reply for India's information.

Telegram from the Engineer-in-Chief, East Coast Railway, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Vizagapatam, 22nd August 1890.

So busy with estimates have had no time. Will report on para. 2 of G.O., 1415 R., 20th December, on return from Simla.

Order—dated 2nd September 1890, No. 1298 R., Public Works.

Ordered to be forwarded to the Government of India with reference to its letter, No. 699 R.C., dated 9th August 1890.

(Here enter No. 1299 R., dated 2nd September 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 2nd September 1890, No. 1299 R., Public Works.

Forwarded.

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ORDER—dated 19th November 1890, No. 1837 R., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 1838 R., dated 19th November 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, East Coast Railway Accounts.
" Examiner, Guaranteed Railway Accounts.
" Revenue Department.
" Engineer-in-Chief, East Coast Railway.

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To the Consulting Engineer for Railways.
" Examiner, East Coast Railway Accounts.
" Examiner, Guaranteed Railway Accounts.
" Revenue Department.
" Engineer-in-Chief, East Coast Railway.

LETTER—to the Secretary to the Government of India, Public Works Department, dated Fort St. George, 19th November 1890, No. 1838 R.

With reference to your letter, No. 987 R.C., dated 30th October 1890, requesting that the submission of the further report on the proposed branch railway between Bezváda and Masulipatam may be expedited, I am directed to invite attention to Public Works Department docket, No. 1768 R., dated 11th November 1890, forwarding a copy of the Proceedings of this Government, No. 1767 R., of the same date, in which the Agent and Manager of the Madras Railway was authorized to carry out the survey at an estimated cost of Rs. 7,150, the results of which will be reported to the Government of India when finished.

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. D. Xavier.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 19th.

Recd. *Encl.*

G.O., 19th Nov. 1890, Nos. 1837, 1838 R.

NOVEMBER.

Branch Railway between Bezvada and Masulipatam

Inviting attention to Proceedings of this Government in which the Madras Railway was authorized to carry out the survey for the proposed —, the results of which will be reported to the Government of India when finished.

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 11th.

Recd. *Encl.*

G.O., 11th Nov. 1890, Nos. 1767, 1768 R.

NOVEMBER.

Survey for a broad gauge line of Railway from Bezvada to Masulipatam

Forwarding copy of Proceedings sanctioning the estimate for a survey for a broad gauge line of railway from Bezváda to Masulipatam and issuing certain instructions as to the prosecution of the survey.

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 19th.

Recd. *Encl.*

G.O., 19th Nov. 1890, Nos. 1837, 1838 R.

NOVEMBER.

Branch Railway between Bezvada and Masulipatam

Inviting attention to Proceedings of this Government in which the Madras Railway was authorized to carry out the survey for the proposed —, the results of which will be reported to the Government of India when finished.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

G.O., dated 9th October 1890, No. 1494 R., Public Works.

Order—dated 9th October 1890, No. 1494, R., Public Works.

The Consulting Engineer for Railways is requested to obtain from the Agent and Manager, Madras Railway, information with regard to the cost at which that Company would carry out the survey for a broad gauge line of railway from Bezváda to Masulipatam.

(True Extract.)

(Signed) T. GRACEY, Lt.-Col., R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following papers :—

From the Collector of the Kistna District, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Masulipatam, 16th October 1890, No. 7531.

In compliance with your request, I have the honor to forward copy of a memorandum (with five spare copies) which I have drawn up to supply Colonel Lindsay, R.E., the Agent and Chief Engineer, South Mahratta Railway, with the information he desired as to the prospects of an extension of the South Mahratta Railway across the river Kistna, *via* Bezváda, through the delta to Masulipatam. A map of the line the extension should take is also enclosed.

2. I would venture to urge strongly upon Government the advisability of an immediate survey of this extension. It is an essential to the completeness and finality of the South Mahratta Railway east of Guntakal as a famine protective line. It will not only give this famine protective line a long base through the grain-producing delta, but will also afford a stretch through a rich country of 50 miles that will probably pay well and form a satisfactory termination to the non-paying line through Kurnool and the uplands.

3. The line whether constructed by the South Mahratta Railway or by the Madras Railway will be an incalculable boon to the eastern delta of the Kistna district. The Western delta will be traversed by, and will prosper exceedingly through, the railway extension from Bezváda to Nellore and Madras. The Eastern delta between Bezváda and Masulipatam with a still greater area under irrigation requires the railway extension to Masulipatam for its full and prosperous development.

ENCLOSURE.

MEMORANDUM on a proposed extension of the South Mahratta Railway to Masulipatam.

The temporary terminus of the South Mahratta Railway in the Kistna district is now opposite Bezváda on the right bank of the river Kistna where alone it abuts on the delta. The two hundred odd miles of this railway through the Kurnool and Kistna districts were constructed as a famine protective line and not as a remunerative commercial undertaking. Any proposed extension therefore that renders this line more effective for famine protection is justified by the Railway's *raison d'etre*, and if such extension promises at the same time to be commercially remunerative in a way that no other portion of the line ever can be, it is deserving of a careful consideration.

2. The construction of the Kistna bridge at Bezváda has now been formally commenced. This great bridge—to be three-quarters of a mile in length—is prominently connected with the East Coast Railway which is eventually to run from Madras *viâ* Bezváda to Cuttack and Calcutta. It should, however, be borne in mind that it was originally approved in 1883 by the Secretary of State as a necessary continuation of the South Mahratta, or as it was then called—the Bellary-Kistna—Railway. It will be railed for both broad and narrow gauge.

3. The first effect of the bridge will be that all traffic on the South Mahratta Railway will pass over the bridge to and from Bezváda and that a station for goods and passengers must be provided on that side of the river. From this point the East Coast Railway passes away to the north-east, skirting the Ellore canal and the fringe of the Eastern Kistna delta, into which, however, it does not enter.

4. The Eastern delta irrigates over 2,20,000 acres of rice land and this area will steadily increase to a maximum of 2,70,000 acres or over 400 square miles. It is tapped by one main navigable canal to Masulipatam and a branch that connects it with the Godávari canal system. The main canal runs for half its length near and parallel to the river and is thus of less use for the export of grain than it would be if it passed more centrally through the delta.

5. The railway extension has a great tract of rice-growing country invitingly open to it, which is not served by a navigable canal. The line would pass through a series of important towns and villages, and would finally reach Masulipatam, the capital of the district, after a course of 50 miles, which is almost the same length as that of the main canal.

6. A reference to the map will show that the railway should leave Bezváda by crossing the Ellore canal as soon as practicable. Ample room is available for additional sidings and wharves if more be needed. The line will run between the Ellore and the Ryves canal till it crosses the high road about the ninth mile not far from the villages of Nidamannur (population 1,150), Velpur and Done-Atkur. Five miles further on it reaches Tenneru (p. 1,180). Five miles further is Ventrapragada (p. 2,582), and after another five miles comes Gudiváda (p. 4,040), the chief town of the taluk. Then follow Angalur (p. 1,700) and Vinnakota (p. 1,800) at six miles distance, next at about the same distance is Kowtaram (p. 2,400) on the branch canal. Vadlamannad (p. 1,100) comes next, and then seven miles from Kowtaram is the large business centre of Peddana (p. 4,400). Thence to Masulipatam is six miles.

7. Every village above named lies in the midst of a richly-irrigated rice-growing country which is steadily increasing in population and in wealth, and lacks nothing so much as means of communication. The nature of the soil—a black silt—renders road-making costly and difficult. Railway feeders are therefore more suitable to the conditions of the delta than through lines of high road.

8. Masulipatam, the chief town of the district, and its port would be the terminus of this branch of the South Mahratta Railway. At the census of 1881 it was a town of 7,700 houses with a population of 35,000. The houses now newly numbered for the approaching census have increased to 10,480, and taking the same average number of occupants per house as before, the population should now stand at 48,000. The town is the official head-quarters of the district and holds the Judge's and District Munsif's Courts, the Collector's and Deputy Collector's cutcherries, the District Registrar's and other public offices, which cause a large flow of people on public and private business. There are several flourishing Mission agencies under the Church Mission Society. In educational institutions it possesses the Noble College about to be raised to the first grade, a Hindu High school, a normal Training school for the whole district, and minor scholastic agencies for male and female education.

9. The port of Masulipatam is inferior as far as natural facilities are concerned, steamers and ships have to lie six to seven miles out, as at Cocanada and Tuticorin, and there is a bar to cross. But the port has been undeservedly neglected in the past, and it is only within the last two years that an iron shed has been erected by Government to shelter goods from wind and weather. It has been asserted that the bay is shoaling up, but the investigations of the late Port officer, Mr Fletcher, do not support this view; the anchorage for ships and steamers is no further out than of old, and it is shown that whereas the cargo boats of 1858 carried only 12 tons, the present boats carry from 16 to 25 tons, so that there is no shoaling up of the bar.

10. In spite of neglect and natural defects, the trade of Masulipatam has steadily increased for many years past as the following figures will show :—

—	1870-71.	1875-76.	1880-81.	1885-86.	1887-88.	1889-90.
Tonnage..	47,000	1,37,000	1,80,900	2,22,900	3,42,000	Not given.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imports	13,49,978	29,67,129	22,96,706	27,36,369	29,48,082	34,56,046
Exports	4,76,060	11,68,229	10,91,641	8,12,052	15,17,101	12,38,443
Total ..	18,26,038	41,35,358	33,88,347	35,48,421	44,65,183	46,94,489

There is a large export trade in rice to Negapatam and Ceylon mainly in native craft and there seems every likelihood that this special trade will continue to increase. Masulipatam, will be the nearest port from Secunderabad to Burmah and the quickest route for the passage of troops. It is also the nearest port for the supply of Singaréni coal either to Government or to the public.

11. The tonnage of goods carried on the canal between Masulipatam and Bezváda in 1889-90 was 32,989 tons; the passenger traffic for the same period was 70,014, mainly between the terminals. This latter would all be taken by the railway and largely increase owing to greater convenience and saving of time. There would also be added the passenger traffic between the intermediate stations. The passage by canal takes less or more than 24 hours according to whether it is down, stream or up. The boats are very crowded and inconvenient. The railway would give farmers the power to hold back their rice in their own granaries till such time as is most convenient to sell, instead of being obliged to get rid of it during the three months when the delta is dry and passable for carts. It must be remembered that all the canals of the district are closed for three months from March to May inclusive, during which time all traffic is by road. The road traffic returns between Bezváda and Masulipatam for the year 1889-90 are as follows :—

	Goods. MDS.	Passengers.
Bezváda	4,19,687	34,543
Masulipatam	3,55,101	32,561
Total .	7,74,788	67,104
Average ...	3,87,394	33,552

12. There are Salt factories at Manganapudi, 7 miles north of Masulipatam, which yield 2,00,000 maunds per annum, all of which is now taken inland either by canal or on pack bullocks.

13. Mr. Furnivall, the late Agent and Chief Engineer of the Nizam's State Railway, in a note on a proposed extension of that line to Masulipatam was "strongly of opinion that the line will pay well. The line would be very level and would consequently be worked very cheaply." His rough estimate of the total cost including stations, rolling-stock and establishment was Rs. 64,000 per mile of *broad* gauge, or 32 lakhs for the 50 miles.

14. In conclusion, it may be remarked that the railway extension now discussed occupies a totally different position from that of any other portion of the South Mahratta Railway east of Guntakal. That line was made as a protection against famine; it runs through uplands that depend on the rainfall for existence, and it is not likely to be financially remunerative for a long period. The extension to the sea completes the line as a famine protective work by giving it a base of 50 miles through a rich and never-failing rice country. Furthermore, as the delta is rapidly increasing in wealth, in population, and in the productive area under irrigation, and as the terminal points are the important towns of Masulipatam with over 40,000 inhabitantsand Bezváda with over 15,000, there is every prospect that Mr. Furnivall's forecast will prove accurate.

15. The extension would complete all the railway schemes that have been proposed for the Kistna district and would give a still stronger impetus to the progress of the district which is now by means of its great delta irrigation, its canals and its railways, entering on a remarkable career of prosperity, and which already has a land revenue of 49½ lakhs of rupees or considerably more than any other district in the Madras Presidency.

16. The Board of Revenue in a report on the financial aspects of this line as a branch of the East Coast Railway (B. P. 113, 24th April 1890, Revenue Settlement) remark :—

"A consideration of the existing traffic along the present lines of communication between Bezváda and Masulipatam and of the further circumstances that the proposed line of railway between these towns will run for its whole length of 49 or 50 miles through a rich and exceptionally well-irrigated country, with a large population, that it will connect Masulipatam, a town with a population of 35,000 inhabitants, and already possessed of a large export trade, with a railway tapping the Nizam's country and another tapping the Ceded Districts, the Board has no

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6. A reference to the map will show that the railway should leave Bezváda by crossing the Ellore canal as soon as practicable. Ample room is available for additional sidings and wharves if more be needed. The line will run between the Ellore and the Ryves canal till it crosses the high road about the ninth mile not far from the villages of Nidamannur (population 1,150), Velpur and Done-Atkur. Five miles further on it reaches Tenneru (p. 1,180). Five miles further is Ventrapragada (p. 2,582), and after another five miles comes Gudiváda (p. 4,040), the chief town of the taluk. Then follow Angalur (p. 1,700) and Vinnakota (p. 1,800) at six miles distance, next at about the same distance is Kowtaram (p. 2,400) on the branch canal. Vadlamannad (p. 1,100) comes next, and then seven miles from Kowtaram is the large business centre of Peddana (p. 4,400). Thence to Masulipatam is six miles.

7. Every village above named lies in the midst of a richly-irrigated rice-growing country which is steadily increasing in population and in wealth, and lacks nothing so much as means of communication. The nature of the soil—a black silt—renders road-making costly and difficult. Railway feeders are therefore more suitable to the conditions of the delta than through lines of high road.

8. Masulipatam, the chief town of the district, and its port would be the terminus of this branch of the South Mahratta Railway. At the census of 1881 it was a town of 7,700 houses with a population of 35,000. The houses now newly numbered for the approaching census have increased to 10,480, and taking the same average number of occupants per house as before, the population should now stand at 48,000. The town is the official head-quarters of the district and holds the Judge's and District Munsif's Courts, the Collector's and Deputy Collector's cutcherries, the District Registrar's and other public offices, which cause a large flow of people on public and private business. There are several flourishing Mission agencies under the Church Mission Society. In educational institutions it possesses the Noble College about to be raised to the first grade, a Hindu High school, a normal Training school for the whole district, and minor scholastic agencies for male and female education.

9. The port of Masulipatam is inferior as far as natural facilities are concerned, steamers and ships have to lie six to seven miles out, as at Cocanada and Tuticorin, and there is a bar to cross. But the port has been undeservedly neglected in the past, and it is only within the last two years that an iron shed has been erected by Government to shelter goods from wind and weather. It has been asserted that the bay is shoaling up, but the investigations of the late Port officer, Mr Fletcher, do not support this view; the anchorage for ships and steamers is no further out than of old, and it is shown that whereas the cargo boats of 1858 carried only 12 tons, the present boats carry from 16 to 25 tons, so that there is no shoaling up of the bar.

10. In spite of neglect and natural defects, the trade of Masulipatam has steadily increased for many years past as the following figures will show :—

—	1870-71.	1875-76.	1880-81.	1885-86.	1887-88.	1889-90.
Tonnage..	47,000	1,37,000	1,80,900	2,22,900	3,42,000	Not given.
	RS.	RS.	RS.	RS.	RS.	RS.
Imports	13,49,978	29,67,129	22,96,706	27,36,369	29,48,082	34,56,046
Exports	4,76,060	11,68,229	10,91,641	8,12,052	15,17,101	12,38,443
Total ..	18,26,038	41,35,358	33,88,347	35,48,421	44,65,183	46,94,489

There is a large export trade in rice to Negapatam and Ceylon mainly in native craft and there seems every likelihood that this special trade will continue to increase. Masulipatam, will be the nearest port from Secunderabad to Burmah and the quickest route for the passage of troops. It is also the nearest port for the supply of Singaréni coal either to Government or to the public.

11. The tonnage of goods carried on the canal between Masulipatam and Bezváda in 1889-90 was 32,989 tons; the passenger traffic for the same period was 70,014, mainly between the terminals. This latter would all be taken by the railway and largely increase owing to greater convenience and saving of time. There would also be added the passenger traffic between the intermediate stations. The passage by canal takes less or more than 24 hours according to whether it is down stream or up. The boats are very crowded and inconvenient. The railway would give farmers the power to hold back their rice in their own granaries till such time as is most convenient to sell, instead of being obliged to get rid of it during the three months when the delta is dry and passable for carts. It must be remembered that all the canals of the district are closed for three months from March to May inclusive, during which time all traffic is by road. The road traffic returns between Bezváda and Masulipatam for the year 1889-90 are as follows :—

	Goods. MDS.	Passengers.
Bezváda	4,19,687	34,543
Masulipatam	3,55,101	32,561
Total .	7,74,788	67,104
Average ...	3,87,394	33,552

12. There are Salt factories at Manganapudi, 7 miles north of Masulipatam, which yield 2,00,000 maunds per annum, all of which is now taken inland either by canal or on pack bullocks.

13. Mr. Furnivall, the late Agent and Chief Engineer of the Nizam's State Railway, in a note on a proposed extension of that line to Masulipatam was "strongly of opinion that the line will pay well. The line would be very level and would consequently be worked very cheaply." His rough estimate of the total cost including stations, rolling-stock and establishment was Rs. 64,000 per mile of *broad* gauge, or 32 lakhs for the 50 miles.

14. In conclusion, it may be remarked that the railway extension now discussed occupies a totally different position from that of any other portion of the South Mahratta Railway east of Guntakal. That line was made as a protection against famine; it runs through uplands that depend on the rainfall for existence, and it is not likely to be financially remunerative for a long period. The extension to the sea completes the line as a famine protective work by giving it a base of 50 miles through a rich and never-failing rice country. Furthermore, as the delta is rapidly increasing in wealth, in population, and in the productive area under irrigation, and as the terminal points are the important towns of Masulipatam with over 40,000 inhabitantsand Bezváda with over 15,000, there is every prospect that Mr. Furnivall's forecast will prove accurate.

15. The extension would complete all the railway schemes that have been proposed for the Kistna district and would give a still stronger impetus to the progress of the district which is now by means of its great delta irrigation, its canals and its railways, entering on a remarkable career of prosperity, and which already has a land revenue of 49§ lakhs of rupees or considerably more than any other district in the Madras Presidency.

16. The Board of Revenue in a report on the financial aspects of this line as a branch of the East Coast Railway (B. P. 113, 24th April 1890, Revenue Settlement) remark :—

"A consideration of the existing traffic along the present lines of communication between Bezváda and Masulipatam and of the further circumstances that the proposed line of railway between these towns will run for its whole length of 49 or 50 miles through a rich and exceptionally well-irrigated country, with a large population, that it will connect Masulipatam, a town with a population of 35,000 inhabitants, and already possessed of a large export trade, with a railway tapping the Nizam's country and another tapping the Ceded Districts, the Board has no

hesitation in stating its conviction that the line would be a financial success in itself and would further improve the financial prospects of any line with which it was connected."

Masulipatam,
7th October 1890.

(Signed) A. T. ARUNDEL,
Collector.

From the Consulting Engineer for Railways, dated Madras, 24th October 1890, No. 716.

From the Acting Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 21st October 1890, No. 6630/1091.

[Your endorsement No. 925, dated 10th October 1890, to Proceedings of Madras Government, No. 1494 R., dated 9th October 1890.]

I have the honor to inform you that the cost of surveying a broad gauge line by this Company's officers from Bezváda to Masulipatam is estimated by the Chief Engineer at Rs. 143 per mile, for a distance of 44 miles equal to in all Rs. 6,292.

2. The survey could be undertaken by the party now at work on the Madras-Gúdúr survey immediately on completion of that work, which may be expected to be in about two months' time.

Submitted to Government, with reference to Proceedings of Government, No. 1494 R., dated 9th October 1890.

Order—dated 11th November 1890, No. 1767 R., Public Works.

The Government observes that the distance from Bezváda to Masulipatam is 50 miles and not 44 as stated by the Agent and Manager, Madras Railway, and the total cost will therefore be, at Rs. 143 a mile, Rs. 7,150 and not Rs. 6,292.

2. The estimate for Rs. 7,150 is sanctioned, and this amount will be met from Provincial revenues. The Financial Department will therefore make the necessary arrangements to have this sum placed at the disposal of the Agent and Manager, Madras Railway.

3. The Agent and Manager, Madras Railway, will be requested to proceed with the survey on the lines laid down in the letter from the Collector of Kistna read above, and copy of the plan submitted therewith will be forwarded for his guidance in making the survey.

4. A copy of these Proceedings will be forwarded for the information of the Government of India.

(Here enter No. 1768 R., dated 11th November 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, East Coast Railway Accounts.
" Examiner, Guaranteed Railway Accounts.
" Examiner, Public Works Accounts.
" Financial Department.
" Revenue Department.
" Engineer-in-Chief, East Coast Railway, for information.
with reference to his telegram, dated 22nd August 1890.

Collector of Kistna

Endorsement—dated 11th November 1890, No. 1768 R., Public Works.

Forwarded.

(By Order.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. P. L. Pereira
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 11th.

Recd. *Encl.*

G.O., 11th Nov. 1890, Nos. 1767, 1768 R.

NOVEMBER.

Survey for a broad gauge line of Railway from Bezvada to Masulipatam

Forwarding copy of Proceedings sanctioning the estimate for a survey for a broad gauge line of railway from Bezváda to Masulipatam and issuing certain instructions as to the prosecution of the survey.

Order No. 1979 R dt/ 9th Dec. 1890.

Communicated to the Consulting Engineer for Railways for attention in continuation of Proc: No. 450 R, dated 31st March 1890.

/True Extract/

/Signed/ T. Gracey, Asst. Secy. Offg: R.

To.

The Cons: Engr: for Rys.
" Exs. Gl. Ry. Asst.
" Judicial Departt.

[P. 500-

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

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/True Extract/

/Signed/ J. Gracey, 26/12/90.

Offg: X.

To.

The Secy: Govt: for Rys:
" Exs Govt Rly: Acctt:
" Judicial Departt

P. 500

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No. 816 R. T.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY TRAFFIC.

Introduction of the Warrant Credit Note system for the carriage of non-military prisonors by Railway.

To

THE GOVERNMENTS OF MADRAS, BOMBAY, BENGAL, NORTH-WESTERN PROVINCES AND OUDH, AND THE PUNJAB.

THE CHIEF COMMISSIONERS OF THE CENTRAL PROVINCES, BURMA, AND ASSAM.

THE RESIDENT AT HYDERABAD.

THE AGENTS TO THE GOVERNOR GENERAL FOR RAJPUTANA, CENTRAL INDIA, AND BALUCHISTAN.

THE DIRECTOR GENERAL OF RAILWAYS.

THE CONSULTING ENGINEERS TO THE GOVERNMENT OF INDIA FOR RAILWAYS, CALCUTTA, CENTRAL DIVISION AND LUCKNOW.

Simla, the 7th November 1890.

SIR,

In continuation of Government of India, Public Works Department, letter No. 0298 R.T., dated the 14th March 1890, on the subject of a proposal to issue Warrant Credit Notes for the carriage of non-military prisoners by railway, I am directed to forward, for information, an abstract of the replies received by the Government of India to that letter.

2. From the abstract it appears that—

(1) the Warrant Credit Note system is already in force on the Madras and South Indian Railways, the railways under the control of the Government of Bengal and, presumably, on the East Indian Railway,

(2) on the railways in Burma the Chief Commissioner is unwilling to alter the system of cash payment which is in force for *prisoners travelling in police custody*, as the warrant system has been attended with fraud by subordinate officers to whom it was found necessary to delegate the power of issuing warrants; but in the case of *released* prisoners the warrant system is already in force; and

(3) the other railways in India accept the warrant credit note system.

3. It therefore remains only for such Railway Administrations as have accepted the Warrant Credit Note system, but have not yet introduced it, to settle

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(3) the other railways in India accept the warrant credit note system.

3. It therefore remains only for such Railway Administrations as have accepted the Warrant Credit Note system, but have not yet introduced it, to settle

in direct communication with the local authorities the procedure to be followed, and the form of warrant, and I am to request that the necessary action in this direction may now be taken.

I have the honour to be,

SIR,

Your most obedient Servant,

F. B. HEBBERT,

Officiating Under Secretary.

Documents accompanying.

Abstract of replies referred to.

G. C. Press, Simla.—No. 1234 P. W. D.—11-11-90.—1,200.

Enclosure to the Govt. of India, P. W. Dept., letter No. 816 R. T. of 1890.

Abstract of replies to Public Works Department No. 0298 R. T., dated 14th March 1890, regarding a proposal to issue Warrant Credit Notes for the conveyance of non-military prisoners by rail.

General Number.	From	Railway.	Reply.
3892 R.T.	Consulting Engineer, Lucknow.	Bengal and North-Western.	Accepted.
4015 „	Hyderabad ...	His Highness the Nizam's.	Accepted.
4330 „	Madras ...	Madras and South Indian.	The Credit Note system is already in force.
6362 „	Bengal ...	Railways under the control of the Bengal Government.	Accepted.
6363 „	Director General of Railways.	North Western and Oudh and Rohilkhand.	Accepted.
6473 „	Consulting Engineer, Calcutta.	East Indian ...	Accepted.
6598 „	Consulting Engineer, Central Division.	Indian Midland and Bengal-Nagpur.	Accepted.
6660 „	North-Western Provinces and Oudh.	Rohilkhand and Kumaun.	Accepted.
7312 „	Bombay ...	Railways under the Government of Bombay.	Accepted. But the Bombay, Baroda and Central India, Southern Mahratta and Bhavnagar-Gondal-Jonagarh-Porbandar Railways, suggest that the requisition should be in a form similar to that proposed by the Great Indian Peninsula Railway for conveyance of released convicts. A sample form is forwarded.
7512 „	Assam ...	Dibru-Sadiya and Jorhat.	Accepted.
7713 „	Rajputana ...	Jodhpore ...	Accepted.
8291 „	Central Provinces ...	Wardha Coal State	Accepted.
8940 „	Burma ...	Burma State ...	In 1888 the system under which warrants were issued for the carriage by rail of prisoners and other persons travelling at Government expense was fully examined and considered by the Chief Commissioner, and rules were issued regulating the procedure to be observed in the case of Police Officers travelling by rail in charge of prisoners or otherwise. Under these rules the following procedure is adopted:— (i).—Prisoners travelling in Police custody, *if in sufficient numbers*, are carried in prison vans on the requisition of the Inspector General of Police. In such cases no cash payment is made, the charges due to the Railway being adjusted on the Inspector General's requisition. (ii).—In cases in which *small parties of prisoners* travel in Police custody, the warrant system has been abandoned in favour of the system of cash payments, as it was found that, under the warrant system, extensive frauds and other abuses were practised by subordinate officers to whom it was necessary to delegate the power of issuing warrants. The Chief Commissioner is therefore unwilling to revert to the warrant system in the above cases and prefers that the existing orders should remain in force. (iii).—In the case of *released prisoners*, passage warrants are issued by the Superintendent of the Jails from which the prisoners are released. The Chief Commissioner understands that the credit note system does not materially differ from the system of warrants in force in respect of released prisoners and large parties of other prisoners travelling in prison vans.

Order No. 1979 R dtd 9th Decr 1890.

Communicated to the Consulting Engineer for Railways for attention in continuation of Proc: No. 450 R, dated 31st March 1890.

/True Extract/

/Signed/ J. Gracey Lt Col R.E.
Offg: R.

To.
The Cary: Engr: for Ry:
" Exam Gr Ry: with:
" Judicial Departt

Public Works (1890) Department.

RAILWAY BRANCH.

G.O., No. 1979 Ry/11

DATED 9th December

[Despatch Abstract.]

Warrant & credit note system for the Carriage of Non-Military prisoners.— Letter from the Govt of India directing the introduction of the — on all Railways, Communicated to the Consulting Engineer for Railways.

[P. W. Ry. 500—8-5-00.]

Indexed.