

Public Works (1894) Department.

RAILWAY BRANCH.

G.O., No. 402R

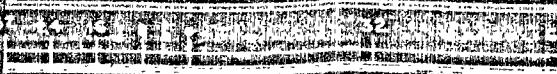
DATED 18th July

[Despatch Abstract.]

Tracing showing the proposed Railway routes
on the Western Coast. — Payment

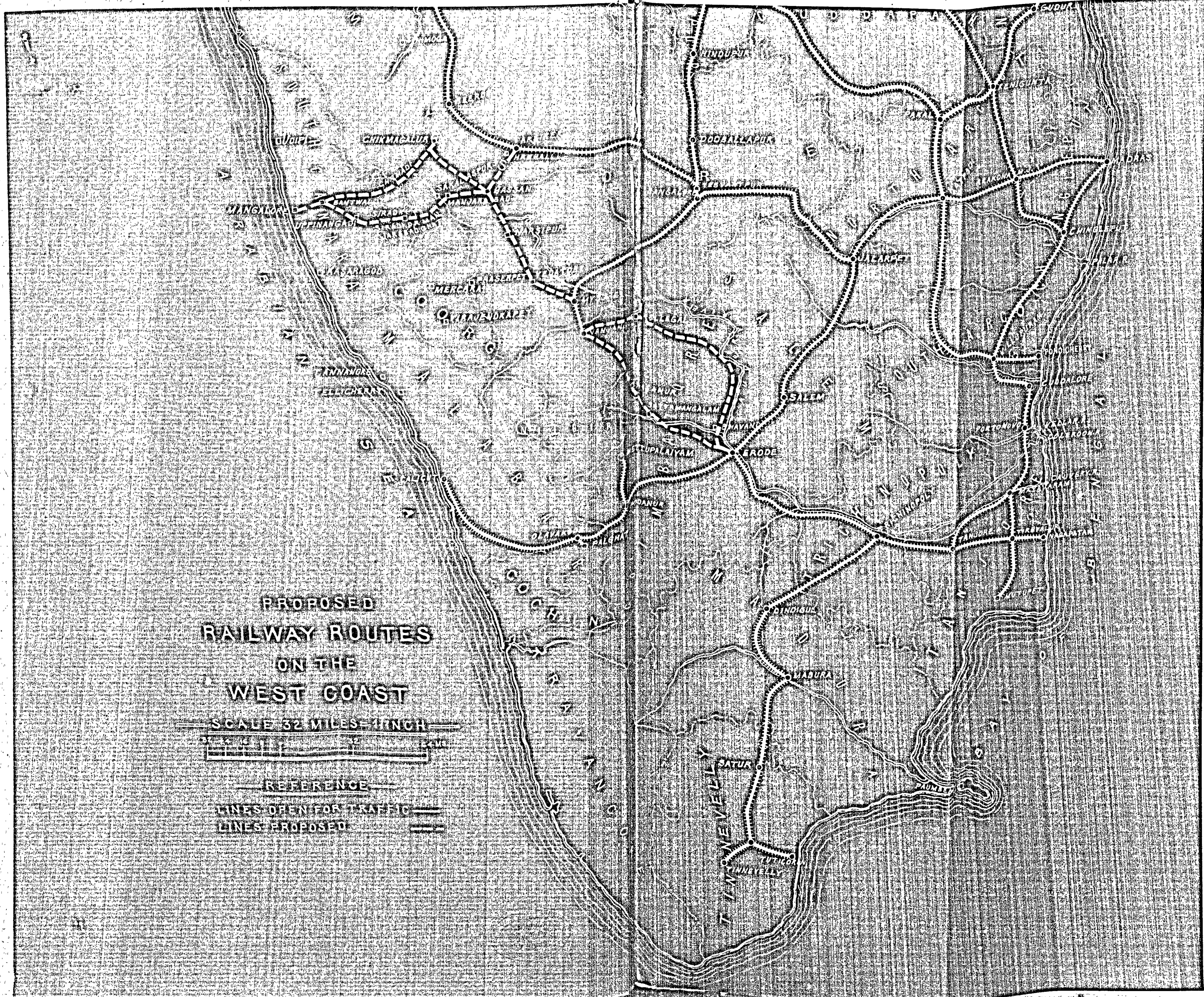
PROPOSED
RAILWAY ROUTES
ON THE
WEST COAST

SCALE 32 MILES = 1 INCH



REFERENCE

— LINES OPEN FOR TRAFFIC —
= LINES PROPOSED =



GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

G.O., dated 29th June 1893, No. 985 R., Public Works.

Read the following paper :—

From the Government of India, Public Works Department, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated 8th June 1893, No. 579 R.C.

I am directed to acknowledge the receipt of your letters marginally noted submitting proposals by Messrs. Kirby and Lonsdale for the construction of the following railways :—

No. 619 R., dated 23rd March 1893.
„ 819 R. „ 6th May 1893.

- (i) From Arsikere station on the Southern Mahratta Railway *via* Hassan to the port of Mangalore,
- (ii) from Hassan to Mysore, and
- (iii) from Nanjangode to the Erode junction station.

2. In reply, I am to enclose a copy of a letter (Government of India No. 565 R.C., dated 5th June 1893) to Mr. Lonsdale informing him that the Government of India are unable to consider his application for the grant of a concession unless he submits full and definite proposals for constructing, stocking and working the projected railways.

3. In the meanwhile the Government of India will be glad to be furnished with full information regarding the prospects of traffic on the several sections of the proposed railway and regarding the terminus and port accommodation at Mangalore, particularly with reference to its accessibility at various seasons of the year, and facilities for shipping and landing merchandise from large vessels.

ENCLOSURE.

From the Secretary to the Government of India, Public Works Department, to W. LONSDALE, Esq., Conservative Club, St. James Street, London, S.W., dated 5th June 1893, No. 565 R.C.

I am directed to refer to your letters marginally noted to the address of the Joint Secretary to the Government of Madras, Public Works Department, asking for the grant of a concession for the construction of the following lines of railway :—

Letter dated 26th March 1893.
„ „ 19th April „

- (i) From Arsikere station on the Southern Mahratta Railway *via* Hassan to the port of Mangalore,
- (ii) from Hassan to Mysore, and
- (iii) from Nanjangode to the Erode junction station.

2. In your letter, dated 19th April 1893, you alter indefinitely the original proposals submitted by Mr. Kirby for the construction of these lines without a guarantee by stipulating that those proposals should be considered as having been made subject to certain terms to be granted to promoters of railways in India, which terms you understand have recently been forwarded for sanction to the Secretary of State for India.

3. In reply, I am to inform you that the Government of India are unable to consider your application for the grant of a concession for the construction of the railways in question unless you submit definite proposals (in the prescribed form laid down for the guidance of promoters when making proposals for the construction of railways, copy enclosed herewith) for constructing, stocking and working the projected lines. If it is intended that the railways when completed should be worked by the agency of any existing Railway administration, such administration should be specified in the proposals with full particulars of the terms for working.

4. I am also to inquire whether the promoters will be prepared to bear the cost of the surveys which are being carried out under the orders of the Government of Madras and such further surveys as may be necessary in connection with their proposals on the condition that if the project is sanctioned and carried out the cost of the surveys shall be included in the capital cost of the undertaking.

Order—dated 29th June 1893, No. 985 R., Public Works.

With reference to paragraph 3 of Government of India letter No. 579 R.C. of 8th June 1893, the Revenue Department will be asked to furnish all information available as to the prospects of traffic between Mangalore and the western frontier of Mysore and with the Mysore country; between Satyamangalam and Erode from Kollegál and along the river Cauvery to Erode; and the Marine Department will be asked to furnish particulars regarding the terminus and port accommodation at Mangalore, with special reference to its accessibility at various seasons of the year, and facilities for shipping and landing merchandise from large vessels.

2. The Mysore Government will be addressed through the Political Department asking for statistics and prospects of traffic—

between Arsikere and Mangalore,
between Hassan and Mysore,
between Nanjangode and Erode both *via* Satyamangalam and *via* Kollegál and the river Cauvery.

Read also the following papers :—

From the Government of India, Public Works Department, dated 26th September 1893, No. 969 R.C.

In continuation of the Government of India's letter No. 871 R.C., dated 4th September 1893, I am directed to forward, for information, a copy of a letter from Messrs. F. Kirby and W. Lonsdale, in which they submit revised proposals for the construction of the following lines of railway :—

- (i) Arsikere *via* Hassan to Mangalore,
- (ii) Hassan to Mysore, and
- (iii) Nanjangode to Erode.

2. I am to request that the Government of India may be favored with the views of His Excellency the Governor in Council on the present more detailed proposals put forward by Messrs. Kirby and Lonsdale, and also with any remarks that the Agent of the South Indian Railway Company may desire to offer on the project.

ENCLOSURES.

From Messrs. F. KIRBY, M.I.C.E., and W. LONSDALE, to the Secretary to the Government of India, Public Works Department, dated 31, Lombard street, London, 14th August 1893.

Having reference to a letter from Mr. William Lonsdale (one of the subscribers hereto), dated Madras, 1st May 1893, addressed to yourself, and to your reply No. 565 R.C., dated Simla, the 5th June 1893, we have the honour to request that the Government of India may be pleased to accord sanction to the following railway projects in the Madras Presidency :—

1. A line to start from the station of Arsikere in the Mysore State on the Southern Mahratta Railway system and proceed to the port of Mangalore in the South Canara district, Madras Presidency.

2. A line to start from the town of Hassan (which will have a station on line No. 1) and proceed to the city of Mysore. This line will be entirely in the Mysore State.

3. A line to start from the town of Nanjangode in the Mysore State and proceed to form a junction with the South Indian Railway at Erode in the Coimbatore district, Madras Presidency.

These three lines are intended, when constructed, to form branches of existing railways, and to complete this purpose the Mysore Government has agreed to sell at cost price an intervening section of fifteen miles of railway already existing between Mysore city and Nanjangode in the Mysore State.

Project No. 1 has received the approval of the Government of Madras.

Project No. 2 is entirely within the limits of the Mysore State and has the approval of the Mysore Government.

Project No. 3, being partly within the limits of the Madras Presidency, has also received the approval of the Government of Madras, but that Government wishes an alternative route to be considered between Nanjangode and Erode, which, if found practicable, may serve more of the Madras territory than the route agreed to by the Government of Mysore. The Government of Mysore concurs in the views of the Government of Madras on this subject and agrees to an alternative route being considered.

If the Government of India is pleased to sanction these branches, the precise route to be traversed between Nanjangode and Erode can be determined during the time occupied in the preliminary measures necessary for the formation of a company in England. The cost of the construction of a railway on the route which the Madras Government wish considered would be about the same as by the route which the Mysore Government has indicated, although the distance would be rather greater. When the proposed railway is constructed it will have the effect of shortening the distance between the south of India and Bombay by about one hundred and thirty miles.

No guarantee is asked from Government, but the promoters of the project solicit that the following terms may be granted to them :—

1. The branch railways will be built in accordance with the fixed and moving dimensions for the time being prescribed by the Governor-General in Council and on plans and estimates that have been approved by that authority.

2. It is solicited that the Government of India will allow to us on application, and free of charge, all information, plans, or estimates in the possession of Government.

3. The use of land required for the construction of the branch railways and for the stations, station yards, offices, warehouses, houses for employes, conveniences and works necessary or proper for the purposes of the railway, as well as land required for quarrying, ballast, brickfields and kindred purposes, to be provided by Government free of charge.

4. The branch railways to be maintained and worked by the main line administrations during the full contracts to be entered into for the purpose at a fixed ratio of expenses to earnings in each half-year. It is proposed that the ratio shall be fifty per cent. of the gross earnings of the branches from all sources and that it shall include charges for the proper maintenance and use of the rolling-stock which will be provided by the Branch Railways Company. Charges for Home Board direction will be excluded from the arrangement and will be defrayed out of the share of the earnings pertaining to the Railway Company.

5. Railway materials for the branches to be carried over State lines at the special rates prescribed for such materials belonging to State railways.

6. Authority to be given to charge to the Capital Account of the Branch Railways during construction and until the close of the half-year next following the half-year in which the branch railways may be fully opened for traffic such sum as, together with any net receipts from working, will suffice to pay interest at the rate of four per cent. per annum on the paid-up capital.

7. Subject to a limit of ten per cent. of the gross earnings of the mail line from traffic interchanged between the main lines and the branch railways, additional payment to be made to

the Branch Railway Company in the shape of a rebate out of such gross earnings of the main line of the sum required, together with the Branch Company's share of the earnings of the branches, to give that company in any year after the close of the half-year next following the half-year in which the branch railways have been fully opened for traffic a dividend of four per cent. per annum on its actual capital expenditure. This rebate to be calculated on each complete year's earnings and to be paid after the accounts have been made up at the end of each year.

8. Funds for the execution of new works—properly chargeable to Capital—found necessary after the branches have been opened to traffic to be provided by the Branch Railways Company. Such works to be agreed upon between the Branch Railways Company and the main line administrations before they are put in hand. In the event of any difference of opinion arising between the branch lines and the main line administrations as to the necessity for any new work, the matter will be referred to the Director-General of Railways as arbitrator, and his decision will be final.

9. Rates and fares upon the branch railways to be within the limits of the schedule of maximum and minimum rates that may be from time to time authorised by Government for the main lines and to be controlled by the main line administrations. Ordinarily, the rates and fares charged on the branch railways not to be more than the highest, nor less than the lowest, mileage rates charged for the time being for similar traffic on the main lines. Deviations outside of these mileage rate limits not to be permissible, except with the special sanction of Government in each case.

10. Government to have the right, on giving twelve months' notice, to purchase the branch railways:

(i) At the expiration of twenty-one years from the date of opening to traffic of the branch railways, and thereafter at successive intervals of ten years, at twenty-five years' purchase based on the average net earnings of the branches for the five years immediately preceding the purchase, provided that the price shall not in any case exceed the total capital expenditure by more than twenty per cent. and shall not be less than the capital expenditure; or

(ii) At the expiration of fifty years from the date of opening to traffic of the branch railways, on payment of the actual capital expenditure.

11. Electric telegraphs and telegraphic appliances to be supplied and maintained by the Government of India; the charges for rent, maintenance and inspection of telegraphic works and appliances to be included in the working expenses. Free passes over the branch railways for persons employed by the Government of India on the construction, maintenance, working and inspection of the telegraphs to be provided by the Branch Railways Company.

12. The rates and arrangements in force on State Railways in the matter of services rendered in the Postal department, to the Military, Police and other departments of the State and to high Government officials to be accepted by the Branch Railways Company.

13. The general character of the supervision and control to be exercised by the Government of India over the branch railways apart from the provisions of the Railway Acts is indicated in the following paragraphs:—

(i) The route of the line and the situation of stations and other similar details to be determined by the Government of India.

(ii) The Branch Railways Company to be required to keep capital accounts and statistics in forms approved by the Secretary of State and to render, free of costs, all accounts and statistics required by Government. The accounts and books to be subject to audit on behalf of Government.

(iii) No capital expenditure by the Branch Railways Company to be allowed as between the Secretary of State and the Company, unless the prior sanction of the Secretary of State has been obtained.

(iv) The company not to have power to increase its share or stock capital without the sanction of the Secretary of State, or to borrow money except within a fixed limit and on specified conditions.

Detailed surveys for the lines under consideration are in course of being made and no work would be commenced until such surveys have received the sanction of Government. In the meantime, maps (1 inch = 1 mile), showing the result of reconnaissances, have been deposited in your office. The full correspondence on the subject of these branch railways between the Government of Madras and the Mysore darbar has been forwarded to you from the Public Works Department, Madras.

The enclosures herein are —

1. Form A. (To accompany all applications for leave to construct railways in any part of British India.)
2. Appendix A.
3. Appendix B.
4. Appendix C.

FORM A.

Number.	Nature of particulars to be specified.	Particulars.
1	The name of the company, person or persons by whom the application is preferred; the proposed amount of the capital, the number of shares and the amount of each share.	Frederick Kirby. William Lonsdale. Two and a half millions sterling in not less than two hundred and fifty thousand shares of ten pounds each, or more than twenty-five thousand shares of one hundred pounds each; first issue to be for two millions. This will include interest on capital during construction, rolling-stock, home charges and minor extensions.
2	The termini, together with the names of all the principal towns from, in, through, or into, or near which the railway is intended to be constructed.	Vide Appendix "A."
3	The length, as far as known, of the proposed railway.	334 miles, including 15 miles of made railway to be acquired from the Mysore Government. This is exclusive of sidings and station requirements.
4	The gauge proposed and weight of rails	Metre gauge. 50 lb. except for ghât work where 60 lb.
5	The motive power to be employed	Steam.
6	The maximum tolls, rates, and fares intended to be charged on the proposed railway.	Vide Appendix "B."
7	Details of any agreement that may have been provisionally arranged under which the proposed line, when constructed, is to be leased out for working to any existing railway administration.	Vide Appendix "C."

[Statement.]

APPENDIX A.—Alignment of proposed railway.

Termini of main line of proposed railway.—Mangalore and Erode.

Branches.—(1) From Mangalore salt cotaurs on the main line to Mangalore port office.

Principal towns and districts or provinces through which the projected railway will pass.

	Towns.	Districts or provinces.
Main line .. Or as between Nanjangode and Erode by an alternative route, which may be agreed upon between the Government of Madras and the Mysore darbar.	Mangalore ..	South Canara.
	Bantval ..	
	Uppinangadi ..	
	Saklasapur ..	
	Bellagode ..	
	Arlur ..	Mysore State.
	Hassan ..	
	Arsikere ..	
	H. Narsipur ..	
	Yedatore ..	
	Mysore ..	
Branch ..	Nanjangode ..	Coimbatore, Madras Presidency.
	Chamrajnagar ..	
	Satyamangalam ..	
	Erode ..	
	Along Gorpur Strand road of the Mangalore municipality (say 1 mile).	South Canara, Madras Presidency.

APPENDIX B.—Schedule of maxima and minima rates and fares intended to be charged on the proposed railway.

	Maximum. Pies per mile.	Minimum. Pies per mile.
Passenger fares—		
First class ..	18	12
Second class ..	9	6
Third class ..	3	1½
Luggage—Free allowance 1½ maunds per 1st-class passenger, 30 seers per 2nd-class passenger, 15 seers per 3rd-class passenger; excess luggage to be charged as parcels; see below.		
Carriages—	Maximum. Pies per mile.	Minimum.
Single carriages ..	42	30
	Maximum. Pies per truck.	Minimum.
Two or more carriages on one truck ..	54	42
Horses—	Maximum. Pies per mile.	Minimum.
Single horse ..	24	18
Dogs—	Maximum. Pies per 50 miles or portion thereof.	Minimum.
Each ..	96	48

APPENDIX B.—Schedule of maxima and minima rates and fares, &c.—cont.

	First 100 miles.	Every additional 100 miles.
Parcels—	RS. A.	RS. A.
Not exceeding 5 seers or 1 cubic foot ..	0 2	0 2
" " 10 " 2 cubic feet ..	0 4	0 4
" " 20 " 4 " " ..	0 8	0 8
" " 30 " 6 " " ..	0 12	0 12
" " 40 " 8 " " ..	1 0	1 0
For every additional 10 seers or 2 cubic feet or portion of 10 seers or 2 cubic feet ..	0 4	0 4
	Maximum. Pies per maund per mile.	Minimum. Pies per maund per mile.
Goods rates—		
5th class ..	1	1
4th " ..	½	½
3rd " ..	¼	¼
2nd " ..	⅓	⅓
1st " ..	⅔	⅔
Coal, edible grain and other low-priced staples to be carried at special rates ..	½	⅓

APPENDIX C.—Working of proposed railways.

No agreement has yet been arranged with any existing railway administration under which the projected railways are to be worked, but, when completed, it is proposed to offer the working to the Southern Mahratta Railway Company as to projects Nos. 1 and 2 and to the South Indian Railway Company as to project No. 3.

The terms under which the branch railways will be maintained and worked by the above main line administrations to be subject in each case to agreement between the main line and branch line companies and to the approval of Government.

No. 1058 D.

Copy forwarded to the Agent, South Indian Railway, for favour of report.

(Signed) F. R. UPCOTT,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

16th October 1893.

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 20th December 1893, No. 4419 C.

In reply to your No. 969 R.C. of 26th September 1893, I am directed to say that His Excellency the Governor in Council is of opinion that the more definite proposals for the construction of the following lines of railway—

- Arsikere via Hassan to Mangalore,
- Hassan to Mysore,
- Nanjangode to Erode;

put forward by Messrs. Kirby and Lonsdale in their letter of 14th August 1893, justify the support of the Madras Government. The reasons for this support are given in letters No. 619 R. of 23rd March and 819 R. of 6th May. The revised terms of Messrs. Kirby and Lonsdale's application for a concession are based on those put forward in Government of India Resolution No. 924 R.C. of 15th September, but it is not known how far the interests of the Southern Mahratta Railway are bound up in projects 1 and 2, nor what their views are, nor whether they would be prepared to work the railway on the terms indicated in paragraphs 14, 15 and 16 of the resolution referred to. The views of the Agent, South Indian Railway, are given in his letter attached.

The prospects and statistics of traffic, which were called for in your letter, No. 579 R.C. of 8th June, are being collected, but some time must of necessity elapse before reliable figures can be given.

The views of the Port Officer as to the port accommodation at Mangalore are furnished in his letter attached.

His Excellency in Council considers that, when the Bezwada-Madras Survey is completed, the Engineer-in-Chief might with advantage be deputed to examine the different routes of project 3 (Nanjangode to Erode), which are specially referred to in paragraph 5 of G.O., No. 819 R. of 6th May.

The statement contained in the last paragraph of Messrs. Kirby and Lonsdale's letter of 14th August 1893 that detailed surveys are being made is premature as the only survey is a reconnaissance undertaken jointly by the Madras Government and the Mysore Government to determine the advantages of the Arsikere-Mangalore and the Mysore-Tellicherry routes.

ENCLOSURES.

From the Agent, South Indian Railway, to the Consulting Engineer for Railways, dated 17th November 1893, No. 1349—printed on page 35.

From the Presidency Port Officer, to the Chief Secretary to Government, dated 4th July 1893, No. 1665/225 G.

With respect to Marine Department reference, No. 1159 of 30th June 1893, on Current No. 526 of 1893, I have the honour to acquaint you, for the information of the Government, that at the port of Mangalore landing and shipping operations are only practicable during the fine weather season and that the port is virtually closed to business of that nature between the middle of May and the middle of September in each year.

2. The usual anchorage for vessels is about a mile or a mile and a half off the entrance to the backwater in about 4 to 6 feet of water.

3. The bar is passable when the sea is smooth, and then only to vessels of light draft, such as native craft and small-sized steamers drawing under 10 feet of water. The accommodation inside of the backwater is limited and not more than one small-sized steamer could be moored inside at present.

4. The port is well supplied with cargo boats and during the fine weather season it is rarely that any difficulty in communicating with vessels anchored in the roads is experienced.

5. Owing to the shallowness of the backwater considerable delay occurs at times during the dry season in loading and unloading cargo boats in the vicinity of the custom house, but this will be overcome probably should dredging operations be commenced next year.

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd December 1893, No. 517.

Read—again the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 15th July 1893, Mis. No. 4197:—

Read—the following G.O., dated 7th July 1893, Mis. No. 2487, Revenue:—

Read—G.O., dated 29th June 1893, No. 985 R., Public Works.

Order—dated 7th July 1893, Mis. No. 2487, Revenue.

Communicated to the Commissioner of Revenue Settlement, Land Records and Agriculture for report.

(True Extract.)

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

To the Commissioner of Revenue Settlement, Land Records and Agriculture.

Resolution—dated 15th July 1893, Mis. No. 4197.

Communicated to the Collectors of Coimbatore and South Canara for full report on the prospects of traffic on the sections of the proposed railways which would affect their districts, viz.—

Coimbatore—Between Satyamangalam and Erode from Kollegal and along the Cauvery from Kollegal.

South Canara—Between Mangalore and the western frontier of Mysore and with the Mysore country.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Collector of Coimbatore.
" " of South Canara.

Read—also the following letter from J. STURROCK, Esq., Collector of Coimbatore, to the Secretary to the Commissioner of Revenue Settlement, Land Records and Agriculture, dated 7th December 1893, No. 1653:—

I have the honour to submit the report called for in Board's Proceedings, No. 4197, dated 15th July 1893, regarding the prospects of traffic by a railway between the Mysore country and Erode *via*—

(1) Satyamangalam.

(2) Kollegal and along the river Cauvery.

2. Owing to my absence from Coimbatore I was not aware that the reference was pending until I received the Board's telegram of the 24th November 1893. It will thus be seen that I have not had time to give very full consideration to a matter which is so new to me that I find some difficulty in knowing how to deal with it.

3. The line *via* Satyamangalam would enter this district on the plateau and pass for some 20 miles through a very sparsely populated forest tract before descending into the plains by a ghât which would probably be not less than 16 miles in length. Through this forest tract there is now a fairly good cart road, but the long stretch of sparsely populated country with peculiar difficulties as regards the water-supply tends to make the traffic by road very much less than it otherwise might be, especially when it is remembered that through traffic from Mysore to the south of India generally can now be carried on by rail *via* Bangalore, Jalarpet and Erode.

4. Besides the cart road there is a bullock track by another pass which is preferred for pack bullocks, as it traverses on the whole a less inhospitable country. The traffic on both these lines was registered some years ago, and in the years 1884-85 to 1886-87 the average annual imports and exports were as under:—

Exports.							NO.	L. MDS.
Hassanur	...	...	...	...	...	...	280	33,156
Chickagajanur	...	...	...	...	...	...	41	5,147
							321	38,303
Imports.								
Hassanur	...	...	...	...	...	...	75,862	34,680
Chickagajanur	...	...	...	...	...	...	35,326	2,059
							111,188	36,739
Total							111,509	75,042

The principal items of export were tobacco, spices, grain and pulses, ghee and betel-nuts, and of imports, gingelly, cocoanuts and jaggery. Cocoanuts in these returns are shown, as the Board is aware, by number and not by weight.

5. The Tahsildar of Satyamangalam, after obtaining figures from local traders, has submitted a very carefully prepared detailed estimate of the present traffic, giving the aggregate weight as follows :—

								I. MD\$.
Exports	..	..	..	..	..	..	..	258,150
Imports	..	..	..	..	..	..	..	991,725

This estimate is obviously excessive, and the Tahsildar considers his informants have over-stated matters. From toll returns on the Hassanur ghât and ferry receipts on the other line, he himself makes an estimate amounting to 265,750 maunds, and on this account would cut down the merchants' estimate to 400,000 maunds. I can see no reason why he should add anything to his estimates based on toll and ferry receipts, and these he has exaggerated by over-estimating the toll profits and not allowing for merely local traffic at the ferries. He has also over-estimated the load a cart can carry on a ghât road. The toll returns, however, do show a very marked increase since the years in which traffic was registered owing probably to the improved state of the road, for I can testify from my own observation that when I last went over it in 1892 its condition, both in this district and in the Mysore territory, was much better than when I first saw it in 1887.

6. The average income from the toll on the road at the head of the Hassanur pass during the years for which the traffic was registered was Rs. 1,040, and the lease amount for the current year is Rs. 2,115, from which it may be inferred that the present traffic has considerably improved, though not necessarily in the same ratio as the improved toll receipts. The site of the toll-gate in question is so unhealthy and isolated that the contract is of an essentially speculative character, and no contractor would give Rs. 2,115 unless he expected to collect about Rs. 3,000 to cover expenses and afford a profit, which would recompense him for the discomfort of living there, or cover the risk of being cheated by his employes over whom he could exercise a very limited check. A collection of Rs. 3,000 would represent about 12,000 carts which, on a ghât road, would probably carry, on an average, not more than 9 Indian maunds, which would put the weight of the present aggregate imports and exports at 108,000 maunds instead of the 67,836 shown in the registers for the Hassanur station. When it is remembered that the toll receipts have doubled, I think that the above calculation may be assumed to be within, rather than above, the mark, and when the Chickagajanur traffic is added the aggregate may be taken at about 125,000 maunds, representing a daily traffic of about 12 tons or 6 tons each way, as the registered traffic returns show that the exports and imports are pretty nearly equal.

7. It is thus clear that the existing through traffic is hardly worth considering from the point of view of a railway, but this is not to be wondered at, as it has been shown above that the conditions are such that the traffic by road can be nothing more than what is required to meet the wants of the tracts of Mysore and Coimbatore immediately adjoining the passes.

8. As regards the general through traffic which would arise after a railway had been opened, I am not in a position to form a better opinion than anyone else who looks at the map. When a direct line is opened from the western side of the Mysore country to Coimbatore, Trichinopoly, Madura and South India generally, and when this line has the further advantage of not necessitating a break of bulk on account of a change of gauge at Bangalore and Erode, it is obvious that there must be a diversion of the existing traffic *via* Bangalore, Jalarpet and Erode, which will be swelled by the stimulus given to the movement of goods to and from the western tracts of Mysore which it would not at present pay to move by the more expensive route now open.

9. As regards purely local traffic, there would be very little in the sparsely populated tract from the frontier to the plains, and the character of the forest is such that I do not think much traffic from forest produce could be relied on. The wants of Southern India would probably continue to be met, as at present, from other forests not very far removed from railway communication.

10. As the toll receipts at Satyamangalam are more than twice those of the toll on the ghât notwithstanding the fact that much traffic avoids the toll during a few months of the year, when the Bhavâni is fordable, and the whole of the traffic which does not go on to the plateau is confined to a small tract between Satyamangalam and the foot of the hills, it may be assumed that a few tons daily would be picked up on that short section of the line.

11. On the 40 miles or so which the railway would traverse between Satyamangalam and Erode the prospects of traffic are, I should think, eminently favorable. The line, while in the Satyamangalam taluk, will skirt the valley of the Bhavāni in which there are 18,000 acres of rice lands irrigated by river channels which never fail, and almost every acre of dry land in the neighbourhood is under cultivation. In the Satyamangalam taluk there are also about 35,000 acres under good well cultivation and most of these lie in tracts not far removed from the proposed line of rail. I have absolutely no statistics regarding the present movement of goods, but the export of grain from the Satyamangalam taluk is known to be large, and the conditions as regards dry and well cultivation in the portions of the Erode taluk through which the line will run are very similar to those of Satyamangalam.

12. In both taluks, though there are no towns, the population in the neighbourhood of the proposed line cannot be less than 325 to the square mile and a large local passenger traffic may be looked for. The long interval of badly watered forest land between the plains and the well-populated portions of the Mysore plateau has hitherto stood in the way of the development of any considerable through passenger traffic, and I know of no grounds on which to anticipate any exceptionally speedy development of such a traffic as a result of the opening of a line of railway. During the period of Canarese supremacy there was a small influx of Canarese settlers, but speaking broadly the people of Mysore and Coimbatore have neither social, religious, nor commercial interests in common, and they speak a different tongue.

13. If the Kollegal line were adopted instead of one *vid* Satyamangalam, the greater portion of the existing traffic between Mysore and Satyamangalam would probably continue to use the road, but either line would afford about equal facilities for the general through traffic from Mysore to South India *vid* Erode. In comparing the prospects of traffic for the two lines, it is therefore not necessary to consider more than the probable local traffic.

14. The railway would, I presume, be brought down the Kaveripuram pass which was formerly the main route between Mysore and the plains lying to the south of the plateau, but it was found much easier to make a cart road through the Hassanur pass in the Satyamangalam taluk and almost all the old traffic which does not now go by rail *via* Jalarpet has been diverted to the Hassanur road, leaving a small traffic by means of pack bullocks which is so trifling that it may be left out of consideration. For about 50 of the 100 miles or so between Kollegal and Erode, the local traffic would, for many years at any rate, be practically *nil*, as the country is little more than uninhabited jungle, and for 30 of the remaining 50 it would be very small, though there would be possibilities of fairly speedy development. For the 9 miles between Bhavani and Erode an ordinary traffic might be anticipated somewhat similar to that on the Erode taluk portion of a line between Satyamangalam and Erode, and in addition to the above there would be a fair amount of forest produce from the Bhavani forests. The Tahsildar speaks of 50,000 cart-loads of bamboos passing annually to Trichinopoly, but this is obvious exaggeration even after allowing for smuggling and growth on private lands. The forest returns show an average annual outturn during the last three years as follows:—

									TONS,
Timber	..	..	..	..	..	..	..	..	<u>220</u>
Bamboos	..	..	..	..	..	..	..	..	<u>1,500</u>
								Total ..	1,720

Smuggling is no doubt extensive with our absurdly inadequate forest establishments, but I do not suppose the existing forest exports, including growth on private lands, can be taken at more than 3,650 tons or 10 tons daily. Of course the traffic would increase very largely if a railway passed through the forests, but I cannot hazard a guess as to what the increase would amount to.

15. As already stated, local traffic within the Coimbatore district above the ghâts would be very small, but on a line through Kollegal it would not be so insignificant. When traffic was registered in 1884—87, the amount was found to be as follows:—

	I. MDS.
Exports ...	73,597
Imports ...	59,537
Total ...	133,134

This represents an average daily export of 7 tons and import of 6 tons. I have no reason to believe that the increase since 1884—87 has been in the same proportion as on the Hassanur ghat, but Kollegal is a thriving little town, and the commercial intercourse between it and Mysore is active and probably on the increase.

16. So far as the Coimbatore district is concerned, it seems to me that the prospects of traffic on a line *via* Satyamangalam are much better than on one *via* Kollegal, as the country is already very much more developed and the section of the line which will pass through country incapable of development is considerably shorter. For administrative purposes, however, a line through Kollegal and Bhavani is much to be desired, as in both these taluks there are large tracts capable of reclamation and which were at one time under cultivation. Many of the inhabitants are said to have been killed and their lands devastated by camp followers when the pass was being used by the contending armies of Mysore and the British, and the abandonment of the pass as a means of communication has deprived the country of facilities for recovery. An idea of the completeness of the isolation of Kollegal from the plains of the Coimbatore may be gathered from the fact that cholum is now selling in Kollegal at the rate of 32·76 seers (of 80 tolas) per rupee, while the rates in Bhavani and Erode are respectively 18·91 and 14·19. Even if the Satyamangalam line be adopted, Kollegal should be connected by rail either with that line or with the existing Mysore railway.

Resolution—dated 22nd December 1893, No. 517.

Submitted for the information of Government with reference to G.O., dated 7th July 1893, No. 2487.

2. The letter read above is Mr. Sturrock's report on the prospects of traffic between the Coimbatore district and Mysore by a railway from Erode *via*—

- (a) Satyamangalam and the Hassanur ghât, or by
- (b) the Cauvery valley and Kollegal.

3. On the former route, the Collector states that for 40 miles or so between Erode and Satyamangalam, he considers the prospects of traffic eminently favorable, as the line would pass through a closely cultivated country and skirt the rich valley of the Bhavani and thus the railway would secure a fair trade, whilst a large local passenger traffic may be looked for. Between Satyamangalam and the foot of the hills, a distance of about 8 miles, it is not anticipated that much traffic, either of goods or passengers, would arise. The railway would then ascend the plateau by a ghât which the Collector states would be probably not less than 16 miles in length and would then pass for 20 miles till the northern border of the district was reached through a very sparsely populated forest tract. So far as passenger traffic is concerned, the Collector does not consider that there is any reason to anticipate any exceptional development of through traffic between the plains and Mysore. The existing through goods traffic by this route is estimated at an average of about 6 tons a day each way.

4. On the route *via* the Cauvery valley and Kollegal, from Erode to Bhavani, 9 miles, traffic similar to that on the first section of the other route may be anticipated, whilst there would probably also be a fair traffic in forest produce from the Bhavani forests for another 10 miles or so. Over the next 30 miles the traffic would be very small though there would, the Collector states, be possibilities of fairly speedy development owing to the large amount of waste land awaiting cultivation. The locality, however, is at present unhealthy. Throughout the remaining 50 miles up to the town of Kollegal, the local traffic would, for many years at any rate, be practically nil, as the country is little more than uninhabited jungle; but from Kollegal on to the Coimbatore frontier a small traffic may be expected which would probably increase. A railway on this route is not, the Collector thinks, likely to absorb the through traffic from Satyamangalam to the Mysore country.

5. So far, therefore, as the traffic is concerned of the country through which the proposed line will pass, it appears that neither route presents any prospect of being remunerative. But for administrative and general purposes, the route *via* the Cauvery valley and Kollegal appears the more advantageous. If, however, a justification for making either line is to be found, it must be in the prospects of through traffic between the southern districts generally and Mysore.

6. As to through passenger traffic, the Board sees no reason to anticipate that it can be large for many years to come; but as regards traffic in goods it may be anticipated that not only would a fair share of the traffic from Mysore to the southern districts, which now passes *via* Jalarpur, be diverted to this route, but such traffic would increase. The following table shows the total railway traffic during the last 5 years of each of the three trade blocks at all concerned with Mysore:—

Year.	Imports from Mysore into			Exports to Mysore from			Total.	
	Madura and Tinnevely.	Trichinopoly, Tanjore and South Arcot.	Salem, Coimbatore and Malabar.	Madura and Tinnevely.	Trichinopoly, Tanjore and South Arcot.	Salem, Coimbatore and Malabar.	Imports from	Exports to
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1888-89 ..	36,170	69,706	894,203	26,250	29,089	680,701	1,000,079	736,040
1889-90 ..	95,743	167,682	979,159	2,958	40,285	1,034,137	1,242,584	1,077,380
1890-91 ..	374,592	226,222	1,470,497	5,347	20,212	1,046,115	2,071,311	1,071,674
1891-92 ..	38,919	140,297	1,123,503	3,971	62,195	821,160	1,302,719	887,326
1892-93 ..	413,882	144,611	1,397,633	5,558	147,323	708,624	1,956,026	861,505

Nearly the whole of the trade between Madura, Tinnevely and Mysore would be diverted to this route and probably a considerable portion of the trade of the other two blocks also; but the Board has no means of arriving at any determination as to the parts of Mysore from which the articles included were received or to which they were sent. Statements are appended showing the chief items making up this traffic, and it will be noted how large a proportion of it consisted of grain, especially during the last three years, when there was scarcity in so many of the southern districts. The advantages of opening up railway communication with the western portions of Mysore where the rainfall is earlier and, the Board believes, less uncertain than over the rest of the province will be very considerable and the starting of the through route will serve to keep down the cost of imported grain when it is necessary to import it.

7. Judging from the above figures there appears to be a prospect of a fair through goods traffic by either route, and as far as this traffic is concerned it will make but little difference which route is adopted.

(True Copies and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary

APPENDIX.

STATEMENT showing the chief items and total traffic by rail to Mysore from

Articles.	South Arcot, Tanjore and Trichinopoly.				Madura and Tinnevely.				Salem, Coimbatore and Malabar.			
	1888-89.		1889-90.		1888-89.		1889-90.		1888-89.		1889-90.	
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
Coal and coke	717	328	25,369	71,571	2	7	31	16	26,617	17,821	2,648	1,280
Grain and pulse	469	957	17,918	28,471	13	276	440	466	46,138	93,088	62,726	86,795
Provisions	3	357	3	13	1	23,621	1	1	44,215	68,722	42,388	44,187
Stone and lime	7,079	25,270	1,841	9,693	1	9,693	1	76	41,314	60,781	86,067	128,169
Sugar	20,821	13,373	12,700	87,673	2,346	23,621	2,512	4,789	5,043	9,631	17,798	1,636
All other articles	29,089	40,285	20,212	147,323	26,260	2,346	2,965	5,347	518,374	827,706	877,941	425,969
Total Traffic	..	..	..	..	..	..	..	..	680,701	1,034,137	1,046,115	708,624

STATEMENT showing the chief items and total traffic by rail from Mysore to

Articles.	South Arcot, Tanjore and Trichinopoly.				Madura and Tinnevely.				Salem, Coimbatore and Malabar.			
	1888-89.		1889-90.		1888-89.		1889-90.		1888-89.		1889-90.	
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
Cotton, manufactured	13	491	321	113	70	13	259	171	1,361	2,336	2,377	811
Dyes and tans	1,345	151	36	109	380	1,183	64,149	341,263	22,546	14,270	22,145	23,763
Grain and pulse	11,368	92,978	169,392	63,875	77,658	2,142	483	8,550	728,227	801,664	1,291,011	963,860
Hides and skins	221	214	49	110	72	6,484	6,130	5,397	7,524	9,391	6,639	4,954
Provisions	24,598	12,142	14,196	35,793	18,538	18,167	27,585	22,146	9,888	8,789	10,324	14,322
Oil-seeds	12,973	40,094	30,189	18,190	22,909	18,167	27,585	22,146	60,152	79,039	72,617	57,220
Sugar	14,110	14,351	8,084	10,242	6,352	6,352	6,381	4,607	40,393	34,466	30,994	22,398
All other articles	5,078	7,261	3,955	7,666	15,013	1,449	1,593	1,000	24,112	29,304	34,490	36,176
Total Traffic	63,706	167,682	226,222	140,297	144,611	36,170	95,743	374,592	894,203	979,159	1,470,497	1,123,603

No. 73, Revenue.

Transferred to the Public Works Department (Railway).

FORT ST. GEORGE,
15th January 1894.(Signed) C. A. GALTON,
Secretary to Government.

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 11th January 1894, No. 21.

Read—the following letter from G. F. T. POWER, Esq., Acting Collector of South Canara, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated Bellan-gadi, 20th December 1893, No. 4733:—

I have the honour to submit the report called for in the Board's Resolution, dated 15th July last, Mis. No. 4197, regarding the prospects of traffic between Mangalore and the western frontier of Mysore and the Mysore country. As information on this point is required in connection with the proposal to construct a railway connecting the port of Mangalore with the existing railway system in Mysore and as the routes selected for railway reconnaissance and survey have been—

- (1) the route to Mangalore *via* the Siradi or Manzarabad ghât,
- (2) the route to Mangalore *via* the Charmadi ghât,

my report is confined to the traffic crossing these two ghâts. There are other ghâts between Canara and Mysore both to the north and to the south of the two just named, but the traffic which crosses them is not at all likely to be carried by the proposed railway if it is constructed.

2. Last April, special temporary establishments were entertained to register the traffic passing up and down the Siradi and Charmadi ghâts, but they have not yet been able to furnish any information which is of much value for the present purpose. After two and-a-half months' work, traffic was interrupted by the south-west monsoon, during the continuance of which trade between the Mysore and the coast is practically at a standstill; and though about three months have passed since the cessation of the rains, the busy season is only now beginning. The statistics hitherto collected and forwarded to the Board's office may, of course, be referred to, but they will not be of much practical use. The figures of the next three months will be of greater value, but this report cannot be delayed to wait for them.

3. Some years ago a similar establishment was entertained to register the traffic to and from Mysore by the two routes above named and others. It worked from January 1881 to December 1887, and the statistics then collected are embodied in the accompanying statement A. According to this statement the average annual value of imports and exports by the two routes in question was as follows:—

	Imports.	Exports.
	RS.	RS.
Siradi ghât	9,08,592	1,47,139
Charmadi ghât	10,17,883	1,46,459

These, however, are the statistics of more than six years ago, and they are not satisfactory or trustworthy evidence of the extent of trade between Mangalore and Mysore to-day. As I shall presently show, the present traffic, both import and export, is very much greater than what was registered between 1881 and 1887. This may be attributed to two causes—(a) the rapid development of the Mysore State and particularly of the coffee districts therein, coffee being our chief article of import from Mysore and export from Mangalore by sea, and (b) inaccurate and defective traffic registration.

4. The statistics available being, as I had reason to believe, untrustworthy and defective, I issued a notice to all the local merchants and traders who were in any way concerned with the Mysore trade asking them to furnish me with accurate returns

of their transactions (both imports and exports) for the last five years. The native merchants were at first reluctant to furnish me with the information for which I asked, and it was finally represented to me that they feared it would be made use of for income-tax purposes; but that they would consent to furnish it to some unofficial gentleman of position on the understanding that he was to give me only the totals, withholding individual particulars. Mr. E. B. Palmer, Agent of the Bank of Madras at Mangalore, who has been resident in the place for 25 years, and probably knows more about the trade of Mangalore than any one else, courteously undertook the office of collecting the figures and compiling the totals, and I am thus enabled to submit the information embodied in the two statements (B and C) enclosed. According to these statements, the average annual value of the traffic between Mangalore and Mysore for the last five years is:—

	Imports.	Exports.
	RS.	RS.
Siradi or Manzarabad ghât	26,94,954	3,70,315
Charmadi ghât	24,35,879	2,97,326

Mr. Palmer thinks, and I agree, that an addition of about 25 per cent. ought to be made to these figures to cover the case of those who, owing to absence from Mangalore and other reasons, omitted to furnish the information for which I asked. He also thinks, and I agree, that, whichever of the two ghâts be selected as the route for the railway, the bulk, if not the whole, of the traffic which now crosses the other ghât will converge to the railway.

There does not seem to be any good reason to believe that the merchants have exaggerated their transactions. Mr. Palmer, who, as I have already said, knows a great deal about Mangalore business, considers the figures to be fairly accurate, and on applying to them (as far as such application is possible) the test of our sea-borne trade returns, I see no reason to doubt that they approximate to the truth.

5. The disparity between these figures and those collected by our registration establishment between 1881 and 1887 is, of course, very striking, but I do not consider this a good reason, or any reason at all, for rejecting the figures now given, or for condemning them as untrustworthy. Our registration in past years probably was both incomplete and inaccurate, as similar registration almost always is; and there is besides no disputing the fact that the resources of Mysore, and consequently its trade with the coast (especially in coffee), have greatly developed of late years. The construction of the railway will probably cause a further very considerable development of both.

6. There are no statistics of passenger traffic between this district and Mysore, but there can be no doubt that it is great. It is well known that Mysore draws largely upon Canara for the labour required for the coffee plantations, and that the comparatively high rates of wages prevailing in Canara are due to this cause.

In the memorial which the inhabitants of the district addressed to Government in March 1892 praying for the construction of the Railway they estimated that over 100,000 coolies go over the ghâts to work every year. Assuming this figure to be approximately correct, there is to be added the number of pilgrims, which I cannot estimate with any pretence of accuracy, but which is known to be large and which may safely be expected to increase with the facilities afforded by railway communication.

7. Reference was also made in the memorial which I have just mentioned to the fact that South Canara is entirely dependent on Mysore for its supply of draught and ploughing cattle. The number annually imported and sold at the Subramannya fair (the chief fair in the district) may be estimated at from 30 to 40,000 head of cattle and at the low average value of Rs. 30 per head, this alone represents a traffic worth from nine to twelve lakhs of rupees. Whether the railway, when made, will carry these cattle is a point on which I cannot speak with confidence, but at any rate the existence of this large cattle trade is a matter which should not be lost sight of in connection with the present subject.

8. With regard to ordinary passenger traffic, apart from pilgrims and coolies bound for the coffee estates, there can be no doubt that easy and rapid railway communication will make travelling to and from Mysore much more popular and frequent than it is now, when a long and expensive land journey, with a ghât in the middle of it, has to be undertaken.

A.—Statement showing land traffic to and from Mysore *via* Siradi and Charmadi ghâts registered from January 1881 to December 1887.

Years.	Siradi ghât.		Charmadi ghât.	
	Imports.	Exports.	Imports.	Exports.
	RS.	RS.	RS.	RS.
From January 1881 to March 1882	12,83,584	1,80,795	17,68,296	2,12,281
1882-83	6,85,527	1,17,716	7,45,209	1,34,037
1883-84	10,94,685	1,23,837	10,84,727	1,15,964
1884-85	9,77,819	1,23,306	10,93,066	1,19,993
1885-86	10,61,721	1,71,629	11,79,842	1,64,065
1886-87	10,50,346	1,80,549	10,24,257	1,61,599
April to December 1887	2,06,466	1,32,141	2,29,789	1,27,273
Total ..	63,60,148	10,29,973	71,25,186	10,25,212
Average ..	9,08,592	1,47,139	10,17,883	1,46,459

B.—Statement of Imports to Mangalore from the Mysore territory by the undermentioned routes.

Routes.	Year.	Coffee.		Sandalwood.		Spices, soapnuts and myrobalan.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8
Manzarabad ghât ..	1889 ..	CWTS. 27,836	RS. 17,97,131	CWTS. 3,050	RS. 91,500	CWTS. 396	RS. 40,100
	1890 ..	42,156	25,49,302	6,771	2,03,130	207	20,468
	1891 ..	31,264	19,52,159	5,803	1,74,090	735	51,450
	1892 ..	56,628	34,72,749	3,670	1,07,100	567	48,945
	1893 ..	39,563	26,31,142	8,556	2,55,350	437	29,934
	Total ..	197,447	1,24,02,483	27,750	8,31,170	2,342	1,90,897
Charmadi ghât ..	Average ..	39,489	24,80,497	5,550	1,66,234	469	38,179
	1889 ..	30,653	19,16,379	..	..	..	..
	1890 ..	33,228	20,23,222	..	..	28	2,800
	1891 ..	35,518	21,97,638	1,221	36,630	106	7,420
	1892 ..	54,226	33,43,117	..	..	..	..
	1893 ..	38,635	26,07,259	..	..	..	..
	Total ..	192,260	1,20,87,615	1,221	36,630	134	10,220
	Average ..	38,452	24,17,523	244	7,326	27	2,044

Routes.	Year.	Grains.		Sundries.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		9	10	11	12	13	14
Manzarabad ghât ..	1889 ..	CWTS. 7,320	RS. 8,320	CWTS. 31	RS. 735	CWTS. 38,633	RS. 19,37,786
	1890 ..	3,450	5,830	11	440	52,595	27,79,170
	1891 ..	4,740	8,445	19	475	42,561	21,86,619
	1892 ..	2,170	5,100	7	175	62,942	36,34,069
	1893 ..	8,480	20,000	28	700	57,064	29,37,126
	Total ..	26,160	47,695	96	2,525	2,53,795	1,34,74,770
Charmadi ghât ..	Average ..	5,232	9,539	19	505	50,759	26,94,954
	1889 ..	5,210	6,480	34	1,950	35,925	19,27,609
	1890 ..	816	4,540	8	200	34,046	20,27,962
	1891 ..	1,308	7,530	29	1,275	36,959	22,13,863
	1892 ..	770	3,940	17	975	56,234	33,84,662
	1893 ..	2,390	16,700	36	1,340	41,061	26,25,299
	Total ..	10,486	39,190	124	5,740	204,225	1,21,79,395
	Average ..	2,097	7,838	25	1,148	40,845	24,35,879

(a) Goods exported and imported by private parties have not been included in the above figures.
 (b) Much information has been omitted, as the parties from whom it could be obtained are absent. An addition of about 25 per cent. on above figures seems to me to be necessary to cover this omission.
 (c) The presumption is that with railway communication the traffic shown by separate routes would converge to the one adopted by the railway.

C.—Statement of Exports to the Mysore territory from Mangalore by the undermentioned routes.

Routes.	Year.	Tiles.		Metals (wrought and unwrought).		Coir matting and gunny bags.		Shell lime Pulper.		Fish and bone and fish manure.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
Manzarabad Ghât.	1889 ..	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.
	1890 ..	14,241	16,269	1,970	32,258	275	3,215	..	..	8,431	26,512
	1891 ..	14,720	16,151	2,041	45,103	376	3,774	..	..	10,362	29,888
	1892 ..	16,816	18,080	2,281	39,091	194	2,303	..	..	5,681	19,240
	1893 ..	16,316	18,127	2,039	26,818	380	4,568	..	..	6,510	22,226
	1893 ..	15,251	16,471	1,949	30,203	244	2,886	..	..	8,777	28,692
	Total ..	77,344	85,098	10,280	1,73,473	1,469	16,746	..	..	39,761	1,26,558
	Average ..	15,469	17,020	2,056	34,695	294	3,349	..	..	7,952	25,312
Charmadi Ghât.	1889 ..	13,112	16,334	1,541	22,408	377	4,199	110	138	4,082	13,249
	1890 ..	11,633	14,913	1,765	27,882	426	6,103	90	112	4,183	13,068
	1891 ..	13,315	14,634	1,395	18,304	318	4,217	200	250	2,838	10,191
	1892 ..	13,813	16,993	1,445	32,370	529	6,528	390	487	6,087	18,930
	1893 ..	12,821	13,202	1,319	20,466	321	4,398	250	312	9,068	24,637
	Total ..	64,694	75,176	7,465	1,21,430	1,971	25,445	1,040	1,299	26,258	80,075
	Average ..	12,939	15,035	1,493	24,286	394	5,089	208	260	5,252	16,015

Routes.	Year.	Salt.		Kerosine-oil.		Sundries.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		13	14	15	16	17	18	19	20
Manzarabad Ghât.	1889 ..	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.	CWTS.	RS.
	1890 ..	46,260	1,96,057	7,834	61,645	2,068	44,965	81,079	3,80,921
	1891 ..	44,875	1,91,568	8,041	55,777	1,807	45,959	82,222	3,88,220
	1892 ..	44,729	1,92,993	7,885	47,709	1,940	38,458	79,526	3,57,854
	1893 ..	47,039	2,02,097	8,317	49,901	1,837	34,963	82,438	3,58,700
	1893 ..	45,514	1,94,368	8,274	49,633	2,052	43,627	82,061	3,65,880
	Total ..	228,417	9,77,083	40,351	2,64,665	9,704	2,07,952	407,326	18,51,575
	Average ..	45,683	1,95,416	8,070	52,933	1,941	41,590	81,465	3,70,315
Charmadi Ghât.	1889 ..	44,503	1,88,838	6,860	41,339	1,236	21,585	71,761	3,08,090
	1890 ..	40,234	1,70,824	6,774	47,430	1,665	26,574	66,770	3,06,006
	1891 ..	38,112	1,61,548	6,726	40,353	1,682	21,741	64,586	2,71,243
	1892 ..	37,475	1,59,336	6,924	48,466	2,552	26,089	69,215	3,09,199
	1893 ..	38,677	1,63,207	7,089	42,532	2,117	23,339	71,662	2,92,093
	Total ..	199,001	8,43,753	34,313	2,20,125	9,252	1,19,328	343,994	14,86,631
	Average ..	39,800	1,68,751	6,862	44,025	1,850	23,865	68,798	2,97,326

(a) Mercantile Mission Branch remark. "We experienced much difficulty in securing carts and were unable to secure as many carts as we were in want of. Cart-hire was also nearly double of former years. With a railway we have every reason to hope that our exports will be nearly doubled."

(b) Goods exported and imported by private parties have not been included in the above figures.

(c) Much information has been omitted, as the parties from whom it could be obtained are absent. An addition of about 25 per cent. on above figures seems to me to be necessary to cover this omission.

(d) The presumption is that with railway communication the traffic shown by separate routes would converge to the one adopted by the railway.

Resolution—dated 11th January 1894, No. 21.

The Collector's report on the prospects of traffic on a railway connecting Mangalore with the western portions of Mysore will be submitted to Government, in continuation of Board's Proceedings, dated 22nd December 1893, No. 517.

2. Mr. Power's report deals only with the through traffic that may be expected by the two routes selected in G.O., dated 20th August 1892, No. 2013, Revenue, for reconnaissance. The traffic that may be expected below the ghâts in South

Canara is not referred to; but from the papers read in the Government Order above quoted, the proposed railway might be expected to secure a very considerable local traffic both in passengers and in goods.

3. As regards the prospects of through traffic, the Collector anticipates that the passenger traffic would be large, especially as regards coolies proceeding to the Mysore coffee estates and as to pilgrims; whilst the opening of railway communication would naturally tend to increase ordinary travelling.

4. In respect to the through goods traffic, the Collector points out that the value of the data collected so far during the current year is not great. The traffic was registered only from April, and during the monsoon months, when the port of Mangalore is closed, all carriage of goods by road is practically suspended. The figures collected up to the end of November—eight months—are summarised in the following table, particulars of the long distance traffic being given for the three routes from Mangalore eastwards on which traffic is now being recorded:—

Description of roads.	Traffic in			Traffic in			Remarks.
	Goods.	Animals.	Pas-sengers.	Goods.	Animals.	Pas-sengers.	
	I. MDS.	NOS.	NOS.	I. MDS.	NOS.	NOS.	
	Mysore to South Canara.			South Canara to Mysore.			
Manzarabad-Mangalore road ..	31,043	58	12,765	22,642	..	13,950	Figures are avail- able only up to November 1893.
Charmadi-Mangalore road ..	32,838	2,842	19,914	20,045	13	39,828	
	Coorg to South Canara.			South Canara to Coorg.			
Mangalore-Mercara road ..	33,864	1,156	31,981	23,172	65	33,299	

5. In the light of the Collector's remark, the Board does not attach much importance to these figures. The data collected at Mr. Power's request by Mr. Palmer, Agent to the Bank of Madras, are probably much more complete, and these show the following results for the two ghâts:—

	Siradi.	Charmadi.	Total.
	CWTS.	CWTS.	CWTS.
Mangalore towards Mysore	81,465	68,798	150,263
Mysore towards Mangalore	50,759	40,845	91,604

These figures, the Collector says, probably understate the actual facts by about 25 per cent. He also thinks that, whichever route be finally selected, a railway would absorb the bulk of the traffic. The whole would represent about 26 tons daily downwards and about 16 tons upwards from the coast, whilst the opening up of a railway would doubtless lead to considerable development of the traffic.

6. Altogether the Board considers that the prospects of a line from Mangalore to the Mysore frontier are very favorable, whilst the connection of South Canara with the railway system of Southern India is greatly to be desired for many reasons.

No. 203, Revenue.

Transferred to the Public Works Department (Railway).

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

24th January 1894.

From Colonel P. D. HENDERSON, c.s.i., Resident in Mysore, to the Chief Secretary to Government, dated Bangalore, 26th January 1894, No. 313/255-92.

With reference to correspondence ending with your letter in the Political Department No. 866, dated the 18th December 1893, regarding the prospects of traffic on the proposed Mangalore-Erode Railway, I have the honour to forward, for the information of the Madras Government, a letter, in original, from the Mysore Durbar (with its enclosures) on the subject.

ENCLOSURES.

From the Chief Secretary to the Diwan of Mysore, to the First Assistant to the Resident in Mysore, dated Mysore, 20th January 1894, No. 11915/G. 2562.

In reply to your letter No. 2461/255-92, dated 17th July 1893, regarding the prospects of traffic on the proposed Mangalore-Erode

From Mr. Purnaiya, Deputy Commissioner of Hassan, No. 190, dated 29th August 1893.

From Mr. Mahomed Ali, Officiating Deputy Commissioner of Mysore, No. 201, dated 22nd August 1893.

From Mr. Mahomed Ali, Officiating Deputy Commissioner of Mysore, No. 255, dated 4th September 1893.

Railway, with branch to Arsikere, I am directed to forward for information, herewith, copies of the marginally-noted reports with enclosures received from the Deputy Commissioners of Mysore and Hassan.

2. The statistics furnished in the above reports are necessarily imperfect, but the Durbar have no doubt that, with economic outlay in initial construction and enhanced mileage rates for traffic on the ghât portions on the Western and Eastern Ghâts, the proposed railway is capable of paying fair dividends to any company making it.

3. The tract in Mysore traversed by the railway has a population as follows:—

	Population.	Population per square mile.
(1) Munjerabad taluk (containing the ghât portion to the west for which special traffic rates can be charged) ..	55,862	127.5
(2) Hole Narsipur taluk	50,894	225.1
(3) Yedatore taluk	74,262	328.5
(4) Mysore taluk	134,684	461.2
(5) Nunjangode taluk	97,374	349.0
(6) Chamrajunggar taluk (in which lies the ghât portion to the east for which special traffic rates can be charged)	91,250	232.1

4. In the Munjerabad taluk, which is the centre of the coffee industry in Mysore, there is a large floating cooly population from South Canara and elsewhere which is not taken into account in the foregoing figures.

5. A system for registration of traffic will be established in the present season, but a railway such as that proposed makes its own traffic, and, in the opinion of the Durbar, it is unnecessary to wait for the exact collection of information regarding *present* traffic in order to arrive at a decision on Mr. Kirby and Mr. Lonsdale's application for a concession to make the railway without any guarantee of interest from Government.

From P. N. PURNAIYA, Esq., Deputy Commissioner, Hassan District, to the Chief Secretary to the Government of Mysore, Bangalore, dated Hassan, 29th August 1893, No. 190.

Adverting to your memorandum No. 1298-300/G.F. 9-92 of the 20th ultimo, calling for the submission of certain particulars in connection with the proposed railway to Mangalore from Arsikere via Hassan, &c., I have the honour to submit the following report.

2. The proposed railway from Hassan to Mysore in one direction and to Mangalore in another direction with branch connecting it with Arsikere would lie in Arsikere, Hassan and Munjerabad taluks in the line to the West Coast, and through Hole Narsipur of this district and Yedatore of the Mysore district on the line towards Mysore.

3. The population of the taluks through which the railway is proposed to pass and of the neighbouring taluks of this district is given in the statement below:—

Taluks.	Population.
(1) Arsikere	65,306
(2) Hassan	113,397
(3) Munjerabad	55,862
(4) Belur	75,470
(5) Hole Narsipur	50,894
(6) Chennarayapatna	78,211
(7) Arkalgud	75,812

4. Prospects of traffic are very promising, both with regard to passengers and goods, which are exported from the district to Mangalore and to Mysore and imported from Mangalore. Statistics have been collected with care and checked with a view of being as accurate as possible. If any error is made at all, it is not in over-estimating. I will not repeat what information is given in the annexed statement of estimates of traffic, but by way of explanation I have to state that, while South Canara taluks between this district frontier and Mangalore are well populated and to a large extent depend for their dry grains upon us, we, in turn, look to that port for sea-borne goods to some extent, and to salt more largely, not omitting to mention that, when occasion should demand it in times of short crop, South Canara taluks are able to supply us with any quantity of rice. It is not simply this mutual dependence for local requirements that forms the trade between the districts, but the main supply to the railway consists in coffee, pepper, cardamom and sandal sent to European countries and to America and in the large quantities of salt, kerosine-oil and piece-goods which are consumed in this and in portions of neighbouring districts. The export trade from the Mysore Province of Hassan and Kadur districts is calculated by Mangalore merchants at 90 lakhs and import at 30 lakhs. I extract the following passage from the address presented to His Excellency the Governor of Madras by the merchants and inhabitants of Mangalore. "That your memorialists believe that the traffic over the proposed railway would, from its opening, render the line a financial success. There is at present a large export trade from the district of South Canara to Mysore in salt, salted fish, oils, metals, tiles, piece-goods, grain, provisions, coir, &c., of the aggregate value of more than 30 lakhs of rupees annually, which is capable of great improvement, and the importance of the imports may be judged from the fact that this year it is estimated that coffee alone of over 90 lakhs of rupees in value will be received in Mangalore for shipment, whilst it is well known that South Canara obtains its entire supply of draught and ploughing cattle from above the ghâts. Your memorialists are also convinced that there would be a large passenger traffic on the proposed railway as it is believed that every year about two hundred thousand pilgrims from above the ghâts visit the Hindu and Jain shrines of this district, and competent judges have estimated that over one hundred thousand Canara coolies go for work above the ghâts." This estimate of 90 lakhs in the above passage is well based upon passed actuals, for, in the preceding year, the value of coffee exported was accurately 81 lakhs, as is seen from the following passage of the Proceedings of the meeting of the Mangalore citizens dated 25th October 1892:—

"But ours here—one hundred and thirteen lakhs in exports and 46 in imports last season, 81 lakhs of which was chiefly the production of Mysore."

5. These figures again stand good when tested by our official returns, according to which there are 16,100 plantations of coffee in this district, which at the lowest calculation of two coolies per plantation, on an average give a total number of 32,200. The extent of coffee cultivation in the neighbouring district of Kadur is much larger and estimating in the proportion of one of Hassan to two of Kadur, the coolies come up to 32,200 against 64,400, making a total of 96,600 compared with the 100,000 estimated by the Mangalore Committee as above set forth. On similar calculations, the value of coffee might stand at 20,00,000, to 60,00,000 thus also approaching the 81 lakhs, the figure adopted by the Mangalore Committee.

6. This does not show all the quantity of coffee available for export as portion is sent away to Bangalore, though not so considerably. There is every reason to think that the line through Hassan and Saklespur on to Mangalore would also be quite convenient to Chickmugalur, because the shortest road that could be made easily without very great cost is only 24 miles *via* Gendehalli, Arehalli and Belagode. It will be to the interest of Chickmugalur coffee traders and growers to send their coffee to this station, for, whereas the distance to Kudur is the same, there would be a saving in the trainage of the distance from Kadur to Saklespur which is about 75 miles. Chickmugalur is now the entrepôt of coffee trade of all the taluks of the Kadur district but Koppa. When Chickmugalur is placed in such an advantageous position, there is no doubt that all their coffee would have to be carried by this railway. Similarly, Yelusavirasime and Nanjarajapatna taluks of Coorg would send all or most of their coffee to some station near Anemahal or Halasulige, some 3 miles beyond Saklespur, where, according to the present survey, the line would pass and the ghât station would be located. Thus this railway would pass through the most popular and populous of the coffee districts in the Mysore Province, serving

equally a district to its right of this country and one to its left of Coorg. The present high prices commanded by coffee yield a sufficient stimulus for this industry, but the facility of a railway will accelerate the expansion of coffee cultivation to an extent which would falsify any forecast however carefully made. Vast areas are still available for coffee and for kindred crops of cardamom and pepper. It will be a serious omission not to take into account the very extensive areas of paddy lands in these Malnad districts. At one time such flats were not cared for and had no value; this was only some 20 or 30 years ago. But after the roads were made in the ghât and Mangalore was connected Munjerabad raiyat has become able to pay off his wet land assessment by selling the paddy straw to the cartmen who carry the trade to that port. This experience justifies an expectation of the fullest utilisation of all cultivable wet land in these Malnad taluks, which do not compare unfavorably with the best irrigated taluks of the district in this respect. For comparison, I note that in the Munjerabad taluk, the area of wet land is 32,570 acres against a total of 21,562 acres in all the three taluks put together, viz., Hole Narsipur (3,500), Arkalgud (8,559) and Chennaroyapatna (9,503) irrigated by the Cauvery and Hemavati channels.

7. The areas above given include those irrigated by channels as well as tanks. The channel irrigation alone extends over 2,075 in Hole Narsipur, 2,771 in Arkalgud, 3,095 in Chennaroyapatna, making a total of 7,941.

8. Figures furnished by the principal firm in Tellicherry of Alstan, Low & Co. are given in one of the statements appended. They show that this firm alone exported from Mangalore port a total quantity of 136,719 cwts. of coffee or 6,836 tons and 870 cwts. of pepper or 43 tons, making in all 6,879 tons. There are other native firms like this, and some of the planters ship direct who are large growers. This statement also shows that about the same quantity of coffee and more of pepper was exported from Tellicherry, the quantity of coffee being 143,788 cwts. or 7,189 tons and 9,135 cwts. or 456 tons. The increase in exports by this firm in Tellicherry over that of Mangalore only shows that they more largely deal with the planting countries near to Tellicherry, viz., Virajendrapett and Mercara in Coorg and portion of Wynaad. These coffee regions are not less extensive than the former in west Mysore and north Coorg and both can never be served by a common railway. So far as the connection to Mangalore from Arsikere is concerned, it is indispensable and invaluable to all the highland coffee country in Mysore.

9. Another article of export, not inconsiderable, is sandal, which may be estimated at 2,000 tons from the districts of Hassan (300), Kadur (300), Shimoga (800), and Mysore (600).

10. The estimated quantity of salt and kerosine-oil is given as 2,700 cart-loads of 8 bags and 10,000 carts-loads of 16 cases.

11. A check to the figures of estimated imports and exports is obtained by the amounts now realised at Marnahalli and Bhoond ghât toll stations, which realise in the annual farming on an average about 3,100 and 3,557 rupees respectively. These figures, increased by the margin of one-fourth of profit to the farmer, would represent 3,875 rupees and 4,446 rupees respectively, answering for 15,500 cart-loads and 17,784 cart-loads respectively, equivalent to 16,642 tons at a calculation of half a ton per cart. The above traffic would yield an average load per diem of 45 tons sufficient for 5 to 6 wagons of 8 tons each or 7 to 8 wagons of 6 tons each.

12. On the other hand independent estimates of exports and imports made after careful local inquiries by amildars give, as shown in the appended statement, a tonnage of 14,907½ for export and 9,908 for import, making a total of 24,812½ tons, yielding an average per diem of 68 tons, making a sufficient load for 8½ wagons of 8 tons each or for 11 to 12 wagons of 6 tons each. The estimates by local officers are not over-rated and the large difference between the total quantity of traffic as shown by those estimates and as shown by the toll-gate return should be explained by stating that the cart returns are not correctly made by the toll farmers for obvious selfish reasons of showing as little of traffic over their farm amount as possible.

13. The present rate of cart-hire is from 10 to 16 rupees from Hassan to Mangalore. This sum therefore represents a carriage fare for half a ton. No doubt the railway will be able to carry it much cheaper — a circumstance tending to foster trade.

14. The passenger traffic would ordinarily be not too light to be fairly remunerative. It would comprise ordinarily of all those in South Canara that have business dealings with Madras and Bangalore and Mysore and local passengers. But the extraordinary traffic would be very great and consequently very paying. There are four shrines of very great repute in South Canara which attract pilgrims from distant countries in Bombay and Madras presidencies. Udipi near Mangalore, and Subbramannya on way to it immediately on the frontier of this country and Dharmastala midway between the two and Bidare are all regarded as very holy places to which Brahmins as well as Hindus of high and low caste and Jains go on pilgrimage. The pilgrim traffic could always be calculated upon at all times of the year, but of course there will be a rush at the annual car festival in Subbramannya and at the biennial "Pariyaya" at Udipi. Subbramannya would be accessible from Siradi, a point on the line only 16 miles therefrom. In each of the four places the assembling of 10,000 persons at the lowest could be calculated upon. The devotees would come from the southern and the central zillahs of

the Madras presidency and from Poona, Belgaum, Dharwar of Bombay. The line being the most direct between Mangalore and Madras, there need not be the slightest doubt as regards the springing up of a fairly remunerative passenger traffic.

15. At the time of the car festival at Subbramannya, a cattle fair is held at which from 15 to 20 thousand heads of cattle are bought and sold. Most of these cattle are bred in Mysore, and South Canara is a very profitable market for the Mysore raiyat to sell his surplus stock to the raiyat of South Canara, who absolutely depends upon the Mysore cattle for all his agricultural purposes. The passenger traffic therefore will certainly be quite as remunerative as in any of the fairly paying lines in India.

16. The prominent financial aspect of this project could be obtained from the foregoing main facts, but it is necessary to enumerate some of the numerous advantages of this railway.

17. Mangalore being regarded as the natural outlet of the western part of this province, if any other port were selected, it would fail to divert the large trade which is carried on with Mangalore.

18. There is a very large and fertile tract of grain-producing country lying between the Mysore frontier and Mangalore, the produce of which would be rendered available for the requirements of those open country taluks of Mysore which are the first to suffer in times of scarcity.

19. If any other port is selected, no Mysore coffee and cardamoms would be drawn to the railway.

20. Vast timber and fuel preserves belonging to Mysore would be developed and utilized if Mangalore is joined with the existing railway system.

21. Mysore carts, which are now employed to carry Coorg coffee and other produce, would all be made available for increasing trade with Mangalore if any other port is selected as the terminus of the railway, thus diverting Mysore produce away from the line.

22. As the Mysore State will have to construct more than half the line, it would certainly be most desirable to form a connection with Mangalore with which port the people of Mysore have always been carrying on extensive commercial transaction.

23. The people of the Mysore province are very conservative, and having once formed connections for trade, would not readily make a change.

24. If any other port is selected the surplus grain in South Canara would be distributed in British Indian territory and would not be so readily available for the needs of the Indian taluks of the province.

25. If Mangalore is selected, the trade of Mysore will be vastly benefited. Coir goods, manures, tiles and timber would be readily imported for the growing requirements of the province and the trade now existing in cattle, grain, chillies, coffee, cardamoms, pepper, sandal, hides, oil-seeds and leguminous crops would be greatly stimulated.

26. The importation of salt, kerosine-oil, fresh and salted fish, hardware and Manchester goods would be greatly facilitated to the benefit of this province and its population.

27. Great assistance would be afforded for improving the labour supply, and the passenger traffic would be considerable owing to the directness and shortness of the line and the growing appreciation of the benefits of a change to the sea-side, more especially by the inhabitants of those localities in which malaria exists.

28. Not the least of these is the connection of Hassan itself by railway with both Mysore and Mangalore.

29. Though at present the industry has not passed beyond the stage of speculation, gold mining, should it develop, would very much use the line between Hassan and Arsikere, and Chennaroyapatna gold fields, where work has now started, would also contribute a very appreciable quantity of traffic as Mangalore would be its nearest port and this line of railway the most direct and shortest connection.

30. Among the other imported articles worth mentioning are iron articles including tools, &c., (1,000), manure to the extent of 1,000 tons, consisting of fish manure (250 tons), bone manure (150 tons), ordinary manure including Hongé, Hippé and castor-oil cakes (6,000 tons), salt-fish (100 tons), Mangalore tiles (500 tons), Moskati rice (100 tons) and Chinaware, European liquor and stores to the extent of 200 tons.

31. These considerations are based only upon the local conditions. What has been briefly hinted might once more be made plainer by stating that what is now imported to Bangalore and Mysore from the West Coast by steamers to Madras and from thence to these two large cities would find its way direct to them by this railway.

32. Now, I come to the section between Hassan and Mysore, passing through Hole Narsipur. Statement No. II appended shows the surplus produce of Hassan and Hole Narsipur and adjacent parts of Arkalgud and Chennaroyapatna, which would, as at present, find its way to Mysore

Weaving industry has not yet died out in Hole Narsipur and Arkalgud. A good large quantity of yarn would be got from Bangalore by this line. Arkalgud and Hole Narsipur are large towns having every day business transaction with Mysore, and passenger traffic would be fairly heavy. Should the alignment bring any point of the line even by forming a loop somewhat nearer to Arkalgud, then this point would be nearest to Frazerpet of Coorg. The large quantities of surplus grain, combined with the large number of persons likely to travel on this section, will surely make it a paying one. The number of pilgrims that go annually to Seringapatam, Nanjangode, Melkote and other places, as well as of those that annually go to Mysore for the Dassara festivities and of those that come to Ramnathpur amounts to nearly 18,000.

33. As the line connects two large cities at either terminus, no doubt a traffic would spring up which would be remunerative. The estimated traffic is shown in the appended statement.

No. I.

STATEMENT showing the articles of export and import between Hassan and Mangalore.

Name of article.	Estimated quantity in tons at 2 cart-loads per ton.	Name of article.	Estimated quantity in tons at 2 cart-loads per ton.
<i>Export to Mangalore.</i>		<i>Import from Mangalore.</i>	
1. Paddy	1,300	1. Areca-nut	20
2. Rice	900	2. Tobacco	15
3. Raggi	3,400	3. Brass vessels	30
4. Horse-gram	103	4. Sea salt	1,350
5. Black-gram	15	5. Iron articles including tools, &c.	1,000
6. Bengal gram	33	6. Sugar	32
7. Coriander seeds	22	7. Sugar-candy	1
8. Fenugreek	5	8. Cocoanut-oil	4
9. Sesamum seeds	25	9. Ropes	18
10. Mustard	100	10. Copper vessels	4
11. Jaggery	80	11. Bell metal vessels including lamp stands	1
12. Pepper	100	12. Kerosine-oil	5,000
13. Chillies	100	13. Coir ropes and mats	40
14. Onions and garlic	20	14. Katchee	25
15. Wax	2½	15. Dried dates	7
16. Honey	7	16. Date fruits	10
17. Castor-oil	70	17. Fish manure	250
18. Tobacco	100	18. Bone manure	150
19. Coffee	2,600	19. Salt-fish	100
20. Cardamoms	50	20. Mangalore tiles	500
21. Date and bamboo mats	4,000	21. Zinc sheets	10
22. Horns	275	22. Moscati rice	100
23. Soap-nut	150	23. Chunam for coffee estates	15
24. Gall-nut	50	24. Matches	102½
25. Sandal	300	25. Stationery	52½
26. Potatoes	150	26. Cumbalies	250
27. Ballar	25	27. Manure including Hongé, Hippé and castor-oil cakes	600
28. Tamarind	25	28. Cotton thread	3
	14,007½	29. Piece-goods	15
29. Add sandal of Mysore and Kadur districts that passes through this district to Mangalore	900	30. Chinaware, European liquor and stores	200
Total	14,907½	Total	9,905
		Grand total, including exports	* 24,812½

* I.e., 68 tons per diem.

No. II.

STATEMENT showing the articles of export and import between Hassan and Mysore.

Name of article.	Estimated quantity in tons at 2 cart-loads per ton.	Name of article.	Estimated quantity in tons at 2 cart-loads per ton.
<i>Exports to Mysore.</i>		<i>Imported from Mysore</i>	
1. Paddy	11,055	1. Horse-gram	72
2. Rice	1,500	2. Green-gram	2
3. Raggi	2,390	3. Bengal-gram	2
4. Dal (unhusked)	145	4. Ghee	12
5. Bengal gram	20	5. Jaggery	40
6. Coriander seeds	30	6. Turmeric	7
7. Sesamum seeds	6	7. Cummin seeds	3
8. Dry cocoanuts	26	8. Sugar	5
9. Turmeric	8	9. Sugar-candy	1
10. Chillies	8	10. Ropes	10
11. Areca-nut	15	11. Manure	500
12. Bamboos	50	12. Butter	25
13. Brass vessels	5	13. Chunam	500
		14. Wool (cumbalies)	50
		15. Cotton thread	2
Total	15,258	Total	† 1,231
		Grand total, including exports	16,489

* From Seringapatam.

† Tons, i.e., 45 tons per diem.

[Statement.]

From K. MAHOMED ALI, Esq., Officiating Deputy Commissioner, Mysore District, to the Chief Secretary to the Diwan of Mysore, dated Mysore, 22nd August 1893, No. 201.

With reference to your memo. No. 1293-300/G.F. 9-92, dated 20th-21st July, 1893, forwarding copies of correspondence from the First Assistant to the Resident in Mysore about the opening of certain railways and requesting to submit a full report with statistics and population, I have the honour to submit herewith a statement showing the particulars connected with the taluks to which the proposed railways will extend.

STATEMENT showing statistics of population and traffic of goods and passengers.

Name of taluk.	Popu- lation.	Coming from other taluks or districts monthly.					Going to other taluks or districts monthly.					Remarks.
		Number of persons		Number of carts.			Number of persons		Number of carts.			
		On foot.	In carts.	Grain.	Other goods.	Empty	On foot.	In carts.	Grain.	(Other goods.	Empty	
<i>Hassan-Mysore Railway.</i>												
Yedatore ..	74,262	4,000	3,000	600	100	1,000	4,000	3,000	2,000	300	200	At present this road is very much used both by passengers and in the Hassan district, as also, parts in the British territory. The line, if completed, will promote the commerce in paddy which is the chief crop of the Yedatore taluk.
<i>Mysore State Railway.</i>												
Chamrajnagar ..	70,608	8,700	4,450	2,100	335	..	11,100	5,250	2,900	436	..	This line will be very much appreciated by the public as passing through the fruitful
Nanjangode ..	97,374	2,600	300	240	390	300	2,240	360	240	300	360	
taluka of Chamrajnagar and Yellandur ; it will touch Kollegal in British territory.												

From K. MAHOMED ALI, Esq., Officiating Deputy Commissioner, Mysore District, to the Chief Secretary to the Diwan of Mysore, dated Mysore, 4th September 1893, No. 255.

In continuation of my letter No. 201, dated 22nd ultimo, I have the honour to submit herewith, for your perusal, a supplemental list showing the statistics of population and of traffic of goods and passengers on the proposed railways in the taluks of French Rocks sub-division, received with the Sub-division officer's docket No. 194, dated 23rd ultimo.

STATEMENT showing statistics of population and of traffic of goods and passengers.

Name of taluk.	Population.	Coming from other taluks or districts.					Going to other taluks or districts.				
		Number of persons		Number of carts.			Number of persons		Number of carts.		
		On foot.	In carts.	Grain.	Other goods.	Empty.	On foot.	In carts.	Grain.	Other goods.	Empty.
1	2	3	4	5	6	7	8	9	10	11	12
Krishnarajapet ..	88,150	1,500	500	..	..	..	1,500	500	600	..	..
Seringapatam ..	85,615	3,000	500	300	100	100	3,000	500	300	100	100

No. 191, Political.

Transferred to the Public Works Department (Railway Branch).

2nd February 1894.

(Signed) J. F. PRICE,
Chief Secretary.

MYSORE STATE RAILWAY.

Estimate No. 2 of 1893-94.—Estimate of the probable cost of reconnoitring alternative lines of railway to connect the Mysore State Railway with the Western Coast.

References.—Madras Government Orders Nos. 2043 R. and 3012, Public Works Department, of 20th August and 14th December, 1892.

Report.—Local knowledge of Mysore and Coorg resolves the four reconnaissances, enumerated in Madras Government Order No. 2043, as follows:—

No.		Approximate distances		
		In British limits.	In Mysore limits.	Total.
1	Mangalore to Seradi Ghat and Hassan to Arsikere	60	77	137
2	Tellicherry via the Iyunda valley, Ammatti, Siddapur, Fraserpet, Bettadpur, Chinchinkate and Yedatore to Mysore	93	54	147
3	Branch from Cannanore to a point on No. 2 about 2½ miles from Tellicherry	13	42	13
4	Branch from Hassan on No. 1 to Chinchinkate on No. 2	..	..	42
	Total ..	166	173	339

2. The following sections of the lines, above enumerated, traverse abrupt hilly country, mostly covered with heavy forest, and should be roughly aligned, surveyed and levelled in order to demonstrate feasibility and for basis of rough estimation:—

No.		Approximate distances		
		In British limits.	In Mysore limits.	Total.
1	Between Wallallu and Seradi frontier	13	59	80
	Seradi frontier to Alur	..	8	..
	Bagadi to Makenhalli	17	..	..
2	Between Tellicherry and Iratti	30	..	52
	Iratti and Chenavada	5	..	..
3	Between Chenavada and Maggal	5	..	5
	Between Cannanore and Tellicherry	..	..	..
	Total ..	70	67	137

3. The remaining portions of the line traverse country so easy that their alignment can be determined merely by traversing with aneroid and maps and any further instrumental work will be a waste of both time and money.

4. As great local rivalry exists in connection with the alternative lines from Mangalore and Tellicherry, it is considered advisable that traffic statistics should be carefully inquired into by an independent officer of the Revenue Branch of the Railway Branch of the Public Works Department under the Government of India and provision is made in this estimate accordingly.

A.

ESTIMATE of the probable cost of reconnaissances of alternative lines of railway to connect the Mysore State Railway with the West Coast.

Description of work.	Per.	Rate.	Number.	Cost in rupees.
Trial aligning, surveying and levelling hilly portions of proposed alternative lines	Mile.	Rs. 136-05	137	18,639
Determining alignment of portions traversing easy country	Officer.	750	Mths. 2	1,500
Collection of traffic statistics	..	..	..	20,745
Total ..	..	..	..	..

B.

Distribution.	Per.	Rate.	Number.	Cost in rupees.
Survey expenses ..	Mile.	Rs.	202	Rs. 606
Plant ..	"	70	137	9,590
Establishment ..	"	7	137	959
	"	70	137	9,590
Total ..	..	..	..	20,745

C.

Detail of establishment.

Rank.	Number.	Salary.	T.A.	Total.	Months.	Total cost in rupees.
Assistant engineers ..	2	Rs. 300	Rs. 180	Rs. 900	4	Rs. 3,600
Supervisors ..	2	150	60	420	4	1,680
Lower subordinates, lump sum ..	1	500	350	750	2	1,500
Traffic officer ..	1	500	350	750	2	1,500
Total ..	..	..	..	..	..	9,590.

D.

Proportion payable by the British and Mysore Governments.

Description of work.	British limits.			Mysore limits.			Total as per Abstract A.
	Mileage proportion	Cost in rupees.	Proportion in rupees.	Mileage proportion	Cost in rupees.	Proportion in rupees.	
Trial alignment of hilly portions ..	100	18,639	9,523	100	18,639	9,116	18,639
Determining alignment of easy portions ..	100	606	248	100	606	318	606
Collection of traffic statistics ..	100	1,500	735	100	1,500	765	1,500
Total ..	..	..	10,546	..	..	10,199	20,745

BANGALORE,
21st July 1893.

(Signed) H. GROVES, M.I.C.E.,
Secy. to the Govt. of Mysore for Railways.

RAILWAY EXTENSION TO THE WESTERN COAST.

Note on progress of reconnaissances of alternative lines.

In accordance with negotiations between the Governments of Madras and of His Highness the Maharaja of Mysore, rough reconnaissances were commenced last February.

2. The lines selected for examination as being most favorable, both on physical and fiscal merits, are—

(i) Arsikere *via* Hassan and the Serádi Ghât to Mangalore, with a branch about one mile in length to the Gurpur harbour at Mangalore.

(ii) Mysore *via* Balgula, Yedatöre, Chinchinkate and Bettadpur in Mysore State *via* Fraserpet, Siddapur, Ammatti, Virajendrapet and Chenavada in Coorg and *via* the Iygunda valley, Iratti and Kottayani to Tellicherry in Malabar district.

(iii) From a point on No. (ii), $2\frac{1}{2}$ miles from Tellicherry to Cannanore, entirely in Malabar district.

(iv) Hassan on No. (i) *via* Hole-Narsipur and Salagram to Chinchinkate on No. (ii), entirely in Mysore State and presenting no difficulty.

3. These lines are shown on the accompanying map and their distinctive features in the two accompanying tabular statements.

4. Line (i) has been roughly reconnoitred from Hassan to Mangalore and trial surveys and levels have been run from Saklaspur to the frontier and between Kankrundi and Wallallu; line (ii) has been roughly reconnoitred from Fraserpet to Tellicherry and also line (iii) throughout.

5. Further work has had to be postponed till November on account of the monsoons, when the principal work will be the completion of trial alignments on the Serádi and Iygunda Ghâts. In the meanwhile and pending close inquiry into the prospects of traffic, it is premature to compare or to estimate the cost and fiscal merits of the main alternative lines (i) and (ii).

6. Since the negotiations between the two Governments for the reconnaissance were effected, Messrs. Kirby and Lonsdale have applied to the Government of India for concession to construct the whole lines (i) and (iv) and the portion of No. (ii) from Mysore to Chinchinkate, but the darbar are of opinion that, pending the successful launching by Messrs. Kirby and Lonsdale of their scheme, financially, the whole of the reconnaissances should proceed, as the results will be of much service in the future to Government or to capitalists who may desire to construct the Chinchinkate-Tellicherry portion of line (ii) and the Cannanore branch (iii).

BANGALORE,
5th October 1893.

(Signed) H. GROVES, M.I.C.E.,
Secy. to the Govt. of Mysore for Railways.

[Statements.]

STATEMENT of leading points (approximate)—cont.

Sections.	Features.	Height above sea level.	Stations.	Railway grade.	Sharpest curve.	Mile.	Mileage.	Cost per mile in rupees.	Total cost in rupees.	Remarks.
Manatur river	Densely wooded steep sidelong slopes of Sub-Alpine nature	175	..	..	..	16½	16½	1,50,000	24,75,000	Foot of Iygunda incline, 400 feet waterway required.
Iratti	Long, narrow, tortuous and abrupt spurs with included valleys, closely cultivated with rice, pepper, coffee, sugarcane and cardamoms.	175	2	1 in 89	1,000	6	17	80,000	40,000	Tidal backwater limit of Iratti river.
Perura		150	3	..	..	6½	23	80,000	3,60,000	
Mutanur		380	3	..	..	6½	28½	80,000	3,15,000	Dharotnyl poyil, 120 feet waterway required.
Koiloode		160	3	..	..	6½	33½	80,000	3,15,000	
Kottayam		300	2	..	..	4	37½	80,000	2,40,000	Amanjar river, 60 feet waterway required.
Wadambarda	Head-quarters of North Malabar civil sub-division and Kottayam taluk; large mercantile seaport.	15	Junction.	..	..	6½	43	80,000	4,40,000	
Tellicherry		10	Terminus and engine station.	..	..	2½	45½	80,000	2,00,000	Dharmapatna backwater, 250 feet waterway required.
								Total ..	43,85,000	
Wadambarda	As between Iratti and Tellicherry.	10	Junction.	..	..	6½	0	60,000	3,30,000	Kadakadavu backwater, 550 feet waterway required.
Eddakad	Head-quarters of Chirakal taluk; large mercantile seaport.	20	3	..	..	7	12½	60,000	4,20,000	
Cannanore		30	Terminus.	..	..			Total ..	7,50,000	
									1,15,17,500	
							Grand Total ..	158½		

From the Agent, South Indian Railway, to the Consulting Engineer for Railways, dated 17th November 1893, No. 1349.

Your No. 1058 D. of the 16th ultimo. I am of opinion that Messrs. Kirby and Lonsdale's projected railway would, if constructed, be of great benefit to the locality through which it passed, but I doubt if it would have the effect of creating a large amount of traffic between the south of India and the Bombay Presidency. The amount of traffic to and from the south, which we now carry *via* Arkonam, would probably be diverted to the Erode route and the mileage over the South Indian Railway would thereby be lessened, but this traffic is not large and we should no doubt get, as compensation, traffic from the new district which does not now reach us. The South Indian Railway Company will be prepared to work project No. 3 on terms to be mutually agreed upon.

From the Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 9th February 1894, No. 7797/114.

I have the honour to address you on the subject of the proposal made by Messrs. Kirby and Lonsdale to construct a line of railway on the metre-gauge system to connect Nanjangode with Erode, regarding which paragraphs have appeared in the public papers from time to time.

2. I need scarcely say that the construction of such a line will be most detrimental to the interests of this Company. All traffic that is now interchanged between the Mysore country and districts south of Erode is conveyed *via* Bangalore City and Jalárpét and thus travels over the Madras Railway for a distance of 198 miles. If the proposed connection is made the whole of this traffic will be lost to us and will be conveyed by the new line on account of the shorter mileage. It is not alone this traffic that will be diverted; the new line will also prejudicially affect the traffic now carried between Mysore State and all stations on our South-west Line west of Erode. The loss of revenue to this Company will be very serious and it may be placed without exaggeration at 10 lakhs of rupees annually. As the Madras Railway is a guaranteed line and does not earn the full amount of interest guaranteed, this loss will fall upon the State; it therefore becomes a question for consideration whether the advantages to be anticipated from the opening of this line are such as will compensate the Government for the loss which it will inflict on the Madras Railway. It will shorten the distance between Mysore territory and the southern portion of this presidency, and this should cheapen the cost of grain foods and other articles of merchandise, but whether the public will derive any advantage from the shorter route is uncertain. The rates levied may be low enough to divert the traffic from its present route, but yet sufficiently high to prevent any appreciable advantage being felt by any others than the proprietors of the new railway and the Mysore State Railway. No other public benefit is apparent and I would beg to submit that the mere lessening of the distance between Mysore and the south of India by about 100 miles is of small importance when compared with the direct disadvantages which it will impose on the Government. The proposed line will not be the means of bringing new traffic to any existing railway; its success will be entirely dependent upon the amount of traffic it diverts from this line, and the greater its success in this respect the heavier will be the loss to be borne by the Government. I cannot see that the new line offers to the British State any advantages to recompense it for the heavy loss which will be caused to this railway by its construction. If the proposed line was the property of the Government the diversion of the traffic would be open to serious objections, but the line is the project of a private company; it will for more than one-third of its length run within Mysore territory and it is the Mysore State Railway that will derive the greatest benefit from it. All traffic conveyed by the new line to and from Bangalore and stations north of Bangalore must travel over the Mysore State Railway for just over 100 miles more than it does at present, and, when this is

taken into consideration, it will be understood why the Mysore darbar approves of the proposed line. Seeing that all the advantages are to be obtained by a Native State and a private Company and these are to be gained too at the expense of the Government of India, it is difficult to understand how the Government can reconcile it to its interests to view it with favour.

3. It is not within my province to criticise the railway policy of the Government, but I may be allowed to draw attention to the views expressed in the memorial submitted by the Madras Chamber of Commerce to Government on the 5th June last. The railway extensions within this presidency which have been carried out in recent years have undoubtedly caused serious injury to the Madras Railway and the port of Madras.

4. I gather from information published in the Madras newspapers that the proposal of Messrs. Kirby and Lonsdale has been submitted to the Southern Mahratta Railway, the Collector of Coimbatore and to other officials for their views, but I regret to say that my opinion has not been invited, although it is a matter which greatly affects the Company I represent. I earnestly request that the remarks I now submit may receive the careful consideration of the local Government and may be forwarded to the Government of India before sanction is accorded to the proposed line.

Note by the Consulting Engineer for Railways.

Mangalore-Arsikere via Seradi Ghât.—The two routes regarding which information has been collected are between Mangalore and Mysore State *via* the Seradi or Munjerabad Ghât and *via* the Cheramudi Ghât.

The results of the reconnaissances so far carried out by the Mysore Durbar have pointed to the route *via* the Seradi or Munjerabad Ghât to Mangalore being the most promising line for construction, and it is probable that a line through either ghât will carry all the traffic that now passes by both routes.

The Collector's report, it will be noticed, deals with figures only regarding the through traffic, and no account is taken of local traffic that may be expected below the ghâts in South Canara and above the ghâts in Mysore proper, but a considerable traffic in passengers and goods is reasonably expected. The figures given only refer to probable through goods traffic, and this is estimated at 26 tons daily downwards and 16 tons daily upwards, while the prospects of passenger through traffic are regarded as fairly good.

The Mysore Deputy Commissioner of Hassan forwards a statement giving total of exports and imports daily between Hassan and Mangalore of 68 tons daily and reports that 200,000 pilgrims and 100,000 coolies pass up and down the ghâts yearly.

The estimate which accompany the Mysore Durbar reconnaissance is *via* Seradi Ghât 137 miles from Arsikere to Mangalore costing about 70,000 per mile including rolling stock.

The portion in Mysore State is 77 miles and includes part of the ghât sections estimated to cost 1½ lakhs per mile for 20 miles with $\frac{1}{4}$ grades.

The portion in British State is 60 miles and includes 5 miles of ghât section at the above rate and grade. To pay 4 per cent. on the capital outlay assuming working expenses at 50 per cent., the railway must earn Rs. 108 per mile per week, and assuming equal receipts from passengers and goods, it must carry daily 738 passengers at 2 pies fare and 295 tons at a 5 pies rate.

The prospects of passengers and goods traffic are therefore fairly good, as the through passenger traffic only is given on good authority at 800 passengers daily and the through goods at 68 tons daily.

The question of the suitability of Mangalore as a harbour to export and import goods at all seasons of the year has been reported on in a letter of 4th July 1893 from the Presidency Port Officer and it may be considered as good a one as usually obtains on the West Coast.

Line from Hassan via Narsipur and Yedatore to Mysore (Hassan-Mysore).—Total length wholly in Mysore State = 66 miles. No estimate of the cost of this route has been given, but probably it can be built for 50,000 a mile including rolling stock.

Treating this on the same basis as the Asikere-Mangalore line, the capital would require to pay 4 per cent., working expenses being 50 per cent. of gross earnings, Rs. 77 per mile per week and that is 528 passengers daily at 2 pies fares and 211 tons of goods at 5 pies rates.

In the statements given by the Durbar, the daily tonnage exported and imported between Hassan and Mysore is only 45.

The passenger traffic is given at 14,000 per month, going and coming, or 470 daily. Here again the prospect is encouraging.

Line from Nanjangode to Erode via Kollegal and right bank of the Cauvery or via Hassanur pass and Satyamangalam.—The Madras Government are, as formerly stated, of opinion that the merits of two routes cannot be settled until more detailed surveys have been made.

The Mysore Durbar may, it is hoped, be able to arrange a reconnaissance by their Chief Engineer later on in the season; till then no estimate can be given even approximately of the distance and cost.

Nor do the revenue statistics give much encouragement. The local traffic is given as 12 tons daily, and the possible passenger traffic as not likely to be large for many years to come, and these remarks apply whichever route is adopted.

The great advantage to the community would be the advantage of a direct communication with Southern India.

The South Indian Railway support this line and the Madras Railway oppose it on the grounds that some traffic which now goes to Bangalore and northwards over their line might be diverted.

Of the three lines then, that between Mangalore and Arsikere is the most promising, opening out a reasonably good port to the produce of Mysore and the coffee estates through and near which it will pass.

That between Hassan and Mysore has fairly good prospects and lying, as it does, within Mysore territory, the Durbar estimate of its value may be taken as conclusive.

The arguments in favour of the Nanjangode-Erode line are not very good and its importance should be judged on the obvious advantages of a through line from Southern India.

(Signed) F. R. UPCOTT,
Consulting Engineer for Railways.

ORDER—dated 10th March 1894, No. 152 R., Public Works.

The prospects of traffic on the several sections of the proposed railway called for by Government of India are forwarded with a note by Consulting Engineer.

The statistics given and the general prospects of the line support the views already given by the Madras Government as to the general benefit to South Canara and Southern India generally of the railway scheme under notice.

(True Extract.)

(Signed) F. R. UPCOTT,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. S. J. Pereira.
Spate Copies.

RAILWAY.

Govt. of {1894} Madras.
PUBLIC WORKS.

Dated March, 10th.

Recd.

Encl.

G.O., 10th March 1894, No. 152 R.

MARCH.

West Coast Railways

Ordered that statistics of the Mangalore-Arsikere, Hassan-Mysore and Nanjangode-Erode lines be forwarded to the Government of India.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date 18th July 1894

~~Read the following:~~

Resolution is recorded to the payment to the Madras Railway Company, of a sum of Rs. 10-7-11, being the cost of ferro-typing the tracing, shewing the proposed Railway routes on the Western Coast, attached to G. O. No. 152 R, dated 10th March 1894.

1717

The Examiner
F. W. Aps.

20/7/94

20/7/94

1717