Public Works (1898) Department.

RAILWAY BRANCH.

G.O., No. 688-89 Ry.

DATED 4th May 1898

20/100 with mint Bank Note

[Despatch Abstract.]

Railway Conference of 1898

Ordered that the note by the Cons. Engr. for Rys. Madras, for the —, be forwarded to the Govt of India.

Forwarding a note by the Cons. Engr. for Rys. Madras, for consideration at the —

Indexed 16/5/98.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

RAILWAY.

Government {1898} of Madras.

PUBLIC WORKS.

Recd.
Regd. } 1898.

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G.O., No. 688 Ry., 4th May 1898.

MAY.

Railway Conference of 1898

Ordered that the note by the Consulting Engineer for Railways, Madras, for the —, be forwarded to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

Letter from the Government of India, dated 28th February 1898, No. 280 R.C.
Note by the Consulting Engineer for Railways, Madras, for the Railway Conference of 1898, dated 1st May 1898.

ORDER—No. 688 Ry., dated 4th May 1898.

The Government of India will be addressed.

[Here enter No. 689 Ry., dated 4th May 1898.]

(True Extract.)

Joint Secretary.

Exd. C. M. Thumbusawmy.

PUBLIC WORKS DEPARTMENT.

Railway.

LETTER—from

FRANCIS J. E. SPRING, ESQ., C.I.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Railway Branch,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

In accordance with the instructions conveyed in your Circular letter No. 280 R.C., dated the 28th February 1898, I am directed to address you on the subject of the railways and projects in this Presidency which seem ripe for discussion at this year's Simla Conference.

2. The accompanying note by this Government's Consulting Engineer brings up to date the history of all the new and projected railways. It will be seen that some of the projects are still not quite ripe for putting forward as definitely as might be desired. Negociations in respect of several of these, however, are now so near completion that there is every reason to hope that, between now and the sitting of the Conference, it may be possible to lay before the Government of India matured proposals for several projects which at this date just fall short of maturity.

3. The chief feature of this year's proposals, and one on which this Government desires to lay great stress, is the new metre gauge conversion and construction policy enunciated in paragraphs 6 to 14 of the Consulting Engineer's memorandum. The subject has been fully dealt with in my letters Nos. 527 Ry., 540 Ry., and 613 Ry., dated the 4th, 6th, and 23rd April 1898, respectively. It is unnecessary here to repeat the arguments used in these letters, and I am therefore instructed merely to express the hope that the policy in question, which this Government is convinced is for the best interests of the Imperial Government, of the Madras Railway Company, and of this Presidency, may receive such support at the hands of the Government of India as shall ensure its ultimate acceptance by the Secretary of State and the Madras Railway Company.

4. Paragraph 39 of the Consulting Engineer's note refers to the narrow, 2-ft. gauge, famine feeder policy, for which this Government pressed so strongly in its Revenue Department letter No. 169, dated the 22nd March 1898. I am instructed here to repeat that in the opinion of His Excellency the Governor in Council the portion of the Famine Insurance Fund which it may be considered just to allot to this Presidency could in no other way be more advantageously utilised for the purposes for which the Fund was designed; and to express a hope that it may be found possible to allot a regular annual grant, sufficient to allow of the completion of the programme, put forward in the letter above referred to, within a period of five or six years.

5. Out of the XXI projects which have been recited in the Consulting Engineer's memorandum, the following five may be set apart as being outside the scope of this year's programme; either (*a*) because they are not ripe for putting forward, or (*b*) because for one reason or another they seem for the present to have fallen through:—

XI. Trichinopoly-Puddukottai-Thondi.	(*b*)
XII. Trichinopoly-Tirukkoyilur.	(*a*)
XVIII. Arsikere-Mangalore.	(*b*)
XIX. Gopalpur-Berhampur.	(*a*)
XX. Vizianagram-Raipur.	(*a*)

His Excellency the Governor in Council attaches a high degree of importance to No. XX, the long delayed *Vizianagram-Raipur* line, and hopes that it may be found possible, very soon, to bring it into the railway programme for all India, and to arrange for its early completion.

6. Out of the sixteen which remain, two, I. *Calicut-Cannanore* and II. *Arcot-Ranipet* have been definitely sanctioned; the Government of India have expressed their intention to finance one, X. *Tinnevelly-Quilon*; for three, IX. *Madura-Pámban*, VIII. *Coonnoor-Ootacamund*, and XV. *Mutupet-Avadaiyárkovil*, the Government of India have said that they are prepared to allow arrangements to be made under the branch line conditions; this Government has been given permission to allow two, XIV. *Ammayanáyakkanur-Kuruvanuth*, and XXI. *Naupada-Parlákimedi*, to be made under the Tramway Act; one, IV. *Shoranur-Cochin*, will in all probability be financed by His Highness the Rajah of Cochin; and it seems reasonable to expect that no obstacle will be offered by the Government of India to arrangements being made for the short extensions, III from *Rayapuram to Madras Harbour* and XIII. from *Negapatam to Nagore*.

7. This Government feels justified in looking upon the eleven projects referred to in paragraph 6 as being for all practical purposes secured. I am therefore instructed to make no further reference to them here, beyond promising that as the necessary preliminaries in regard to them become more and more mature the Government of India shall continue to be addressed as to details, and to be furnished with such information as may be necessary to permit of the passing of final orders in regard to them. The five projects referred to in paragraph 5 as for one reason or another not being fit to put forward, and the eleven projects recited in paragraph 6 as being secure or practically secure, will all be omitted from the schedule of lines arranged in order of preference which it is the object of this letter to lay before the Government of India for consideration at the Conference.

8. The five remaining projects are as follows:—

XVII	*Bezwada-Masulipatam*	50 miles.
XVI	*Kurnool road-Kurnool*	32 ,,
VI	*Erode-Nanjangód*	110 ,,
VII	*Mettupálaiyam-Satyamangalam*	25 ,,
V	*Pódanúr-Dindigul*	118 ,,

9. The first two of these may conveniently be first dealt with. The former would be an extension, and the latter a branch, of the Southern Mahratta metre gauge line; and both are, in the opinion of this Government, eminently necessary for the full utilization of the extension of the Southern Mahratta Railway to the Kistna district. The Bellary-Kistna Railway was the outcome of a wise famine policy, the full benefits of which can however never be fully reaped until the metre gauge system which traverses the dry Bellary districts is made to penetrate in amongst the granary towns of the Eastern Kistna delta, and until, through the intermediary of the railway traffic officers, the grain dealers of the two tracts which differ so largely in climatic conditions, are brought into intimate business contact, so that when famine is again experienced grain may flow from where it is abundant to where it is scarce, with the least preventible friction. The Kurnool branch and the 1st, 2nd, 5th and 6th of the 2-ft. famine feeder projects form the minor distributing channels which are designed to facilitate the dissemination, amongst the villages of the most difficult tracts, of the

cheap grain which there is every reason to expect will flow from the Eastern Kistna delta, if the Masulipatam extension is brought to a successful issue. His Excellency the Governor in Council instructs me to say that he hopes that every facility may be afforded to the Southern Mahratta Railway Company, or to branch line Companies associated with it, to construct these two important sections at a very early period. It seems likely that, if due attention is paid to economy of construction, Rs. 35,000 per mile ought to suffice to construct the 32 mile Kurnool branch, and Rs. 45,000 per mile the 50 mile Masulipatam extension, or a total capital outlay of 34 lakhs for the two, demanding a provision of perhaps not over one lakh per annum for interest, a sum which it seems scarcely possible would not be more than recouped by improved traffic on the main Southern Mahratta Railway, as well as by the net earnings of the branches themselves.

10. The *Erode-Nanjangód*, the *Mettupálaiyam-Satyamangalam*, and the *Pódanúr-Dindigul* lines find an important place in the policy, in regard to which the Government of India have been already addressed, of metre gauge branches and extensions for the Madras standard gauge railway. It may be convenient here to repeat that both South Mysore and the district lying south-east of Podanur are considered by this Government to be properly the trade tracts of the Madras Railway, and not of the South Indian Railway. Both the Mysore branch and the Dindigul branch of the Madras Railway are, in the opinion of this Government, necessary for the proper development of important tracts of country and of important trade interests, and ought to be brought to maturity as soon as they can be admitted within the programme of lines on whose capital cost a guarantee must be offered. As already explained elsewhere the short *Mettupalaiyam-Satyamangalam* section is an essential feature in the new metre gauge network. These three lines, which if economically designed ought to be built for perhaps within Rs. 200 lakhs, must, in the opinion of this Government, be arranged for with the Madras Railway Company on Calicut-Cannanore terms. It seems likely however that the Mysore Government may prefer to themselves construct, or underwrite the guarantee for, the 30 mile portion of the Nanjangod line lying within their territory. Should they do this it would be essential that it should be arranged with the Durbar that the Madras Railway Company should lease the 45 mile section from the frontier to Mysore, because the city of Mysore is the Company's objective for trading purposes.

11. As it does not seem possible that surveys and projects for these proposed metre gauge extensions of the Madras Railway should be ready before April 1899, it seems unnecessary now to say more on the subject beyond communicating to you the strong desire of His Excellency the Governor in Council that the Government of India may see their way to support the scheme.

12. Taking for granted that the eleven projects detailed in paragraph 6 are practically as good as secured, it seems only necessary now to schedule the following five in the order of preference allotted to them by this Government:—

Number in order of preferred priority.	Number in the Consulting Engineer's note.	Name of project.	Line in connection with which to be worked.	Source of supply of funds.
1	XVII	Bezwada-Masulipatam	Southern Mahratta Ry.	Branch Line Company.
2	XVI	Kurnool road-Kurnool	Do.	Do.
3	VI	Erode-Nanjangod	Madras Railway ..	Calicut-Cannanore terms.
4	VII	Mettupálaiyam-Satyamangalam ..	Do. ..	Do.
5	V	Podanur-Dindigul	Do. ..	Do.

13. In conclusion I am instructed to say that all information of any value which may be collected between now and the date of the sitting of the Conference shall be forwarded in due course to the Government of India.

I have the honour to be,
Sir,
Your most obedient servant,

Joint Secretary.

Ootacamund,
4th May 1898.

RAILWAY.

Government {1898} of Madras.

PUBLIC WORKS.

Recd. } 1898. *Enclosures*

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Letter, No. 689 Ry., 4th May 1898.

MAY.

Railway Conference of 1898

Forwarding a note by the Consulting Engineer for Railways, Madras, for consideration at the —.

THE RAILWAY CONFERENCE OF 1898.

Note by the Consulting Engineer for Railways, Madras.

1. During the year which ended on the 31st March 1898, satisfactory progress has been made in negociations in regard to a number of the lines which were pressed for in our letter to the Government of India, No. 332 Ry., dated the 10th May 1897. The Calicut-Cannanore extension, 62 miles, and the Arcot branch, 4 miles, have been definitely arranged for, and work on them has been started. The Government of India have offered terms for the Madura-Pamban, 100 miles, and for the Tinnevelly-Quilon, 103 miles, which seem certain, after negociations and with a little diplomacy, to be accepted by the South Indian Railway Company and by the State of Travancore. We are now in daily expectation of receiving an offer, from the Rajah of Cochin, to provide the capital required for the construction of the Shoranur-Cochin line, 73 miles; and this offer will, there can hardly be a doubt, prove acceptable. The Government of India have expressed their willingness to recommend to the Secretary of State that the Tanjore District Board should be permitted to finance the proposed extension of their Mayavaram-Mutupet line to Avadyarkoil, 45 miles. We may, I hope, count upon the acceptance by the Secretary of State of the project lately sent up for extending the Nilgiri Railway a further distance of 12 miles to Ootacamund. The South Indian Railway Company's proposed short suburban extension of 4 miles from Negapatam to Nagore may also doubtless be counted on as certain to be sanctioned. The Government of India have provisionally approved of a proposal, not contemplated at the time of the last Conference, by the Rajah of Parlakimedi, to construct a light railway at his own expense about 25 miles in length, from Naupada to Parlakimedi. Thus, with a fair degree of certainty, we may count upon securing the early construction of 428 miles of new railways in the Presidency.

2. But besides the above 428 miles which we may fairly count on getting in the near future, there are the following 300 miles in regard to which negociations are progressing satisfactorily. A survey of the Erode-Nanjangod link, 114 miles, is in progress, and I learn from the Chief Engineer of the South Indian Railway that the ghât to be negociated is not likely to prove as difficult as was anticipated. A business firm in Madras are nibbling at the Ammayanáyakkanúr-Kuruvanuth project, 75 miles, and they expect shortly to be in a position to come forward with a definite offer for it. The Madras Railway Company seem likely to make reasonable proposals for the projected branch from Podanur to Dindigul, 110 miles. The short extension of about 1 mile, from the Madras Railway Company's terminus at Rayapuram to the Madras Harbour face, is the subject of negociations with the Harbour authorities and is likely I hope very soon to be brought to a practical issue.

3. Three projects aggregating 161 miles in length may for the present be dropped out of sight, namely, the Trichinopoly-Thondi, 86 miles; the Vizianagram-Bimlipatam, 15 miles; and the Vizianagram-Saluru, 60 miles. We have expressed concurrence with the Government of India that the first is not wanted in the near future; and the concessionaires of the other two have not apparently been able to do anything with their concessions. There seems every reason to hope that, in lieu of the projected branch from Vizianagram to Saluru, the important trunk line from Vizianagram to Raipur in the Central Provinces may within a reasonable time get past the project stage.

4. Of the nineteen projects put forward in a table of preference with this Government's letter to the Government of India, No. 332 Ry., dated the 10th May 1897, fifteen have now been dealt with (and one new one extra). The four which remain, aggregating 226 miles in length, are the following: the Masulipatam-Bezwada, 50 miles; the Kurnool branch, 32 miles; the Arsikere-Mangalore, 137 miles; and the Gopalpur-Berhampur, 7 miles. I may predicate of two of these that this Government is as

anxious as ever it was to secure the very early construction of the Kurnool branch and of the Masulipatam extension, through the agency of the Southern Mahratta Railway Company or of Branch line Companies connected therewith. The very heavy estimate of the cost of the projected branch to connect the Mysore plateau with the port of Mangalore has led to its being indefinitely shelved; but I understand that, rather than shelve it, the Mysore Durbar would prefer to make it on the 2-ft. gauge, and in my estimation most wisely; the Darjeeling-Hymalayan line affords an excellent and well-paying model for the ghât portion. There is an idea of reviving the question of connecting the East Coast Railway with a port in Ganjam by extending the projected Gopalpur-Berhampur line a considerable distance westward so as to tap the fertile Goomsur taluk, possibly on the 2-ft. gauge.

5. I have now referred in a general way to all nineteen of last year's schedule, and to one over, the Parlakimedi line; and have shown that 428 miles of them, involving nine projects, are likely to be secured in the near future; that 300 miles of them, involving four projects, seem in a fair way to being definitely put forward; that negociations for four projects aggregating 226 miles in length are likely to continue; and that 161 miles, involving three projects, may be looked on for the present as dropped from the programme.

6. It will at this stage be convenient to explain very fully how we have been driven into advocating an important change of policy in regard to the gauge of 137 miles of the south-western end of the Madras Railway, and of the projected extensions and existing and projected branches thereof,—a policy which, if accepted, will result in 520 miles of metre system being worked by the Madras Railway Company.

7. Proposals to extend the area served by this Company's system have always been met by the objection that, for the traffic of the areas proposed to be served, a broad gauge railway is too expensive a carrying machine. As it never seemed to have occurred to the Company that they might advantageously extend the area of their business operations by offering to undertake the construction and working of feeders and extensions upon a cheaper scale than that of their main line, they have been obliged, with much dissatisfaction and very natural grumbling, to look on at the gradual extension across their lawful territory of the cheap and efficient South Indian Railway, which seemed likely, sooner or later, to suck away much of the life blood of the older and more conservative and slowly moving organization. But during the last twelve months, in connection with the question whether the south parts of Mysore—a tract which seems undoubtedly to be within the lawful sphere of trading influence of the Madras Railway—should be tapped by that railway or by its rival, the Madras Railway Company expressed their willingness, officially and definitely, to work and to construct metre gauge branches. This, in my opinion, is a most wise decision, and one which, once arrived at, deserves all possible encouragement at the hands of this Government.

8. As we are not dealing with the question of great through trunk lines or of strategic lines, it may be taken as an axiom that it is desirable that, so far as may be possible, certain tracts of country, tracts which as a rule will have their boundaries fairly well defined, whether by natural physical features, climate, topography, soil, produce, or by the existing course of trade and its financing, should be made over to certain railway organizations to work, without fear of encroachment from rivals. I refer of course to India, where the relations of the monopolist to the public can be fairly effectively controlled by Government. A system of railways, to serve such a tract as it ought to be served, may be compared to a river and its feeders, if not in its gauge, then at least in its carrying capacity as measured by the number of trains which it runs on its several parts. Far up towards the "divide" it will sometimes happen that, even with one train a day each way, a railway on the broad gauge is a very uneconomical machine for the work to be done, or ever likely to be done; and it becomes in that case a question, to be decided by experience and by comparative estimates, whether the additional expense involved in change of gauge and in a separate rolling stock organization may not be more than balanced by the economy of working which results from the better co-ordination of means with ends. Thinking on these lines brings us logically in some cases to metre gauge branches or extensions of standard gauge systems, and sometimes perhaps to narrow, *e.g.*, 2-ft.

gauge, commercial branch feeders for standard or metre gauge systems. If the standard gauge is known to cost, say Rs. 1,00,000, metre gauge cheap branches in a poor country Rs. 50,000, and 2-ft. gauge feeders on district roads Rs. 25,000, per mile, very little consideration will show that the adoption of break of gauge, the cost of which is now pretty well known though not specifically charged to the public, may in certain cases prove to be a wise and an economical measure; always predicating that it is not strategic lines or great through trunk lines that are under consideration, but strictly commercial lines for the haulage of third-class passengers from village to village and of produce between the villages and the nearest port or mart.

9. It would be greatly to be regretted if, having given in their adherence to so wise a policy, the Madras Railway Company should afterwards find themselves seriously hampered by reason of the length, or the position, of their metre gauge branches being such as to make their economical working impossible. Thus if they found on their hands only the Dindigul branch, on the metre gauge, it would undoubtedly be difficult to work it economically as an isolated section. But during the progress of enquiries by His Highness the Rajah of Cochin, through the Political Department, as to the possibility of himself, without financial aid from Government, providing the capital necessary for the projected Shoranur-Cochin Railway, it suggested itself that by the adoption of the metre gauge His Highness would find it possible to become the owner of the line, and that with little or no borrowing. But negociations in such matters take time, especially as there is a complication in connection with the necessity for part of the proposed line passing through the lands of the neighbouring State of Travancore; and meanwhile sanction had come to start work on the Calicut-Cannanore line. It seemed right, pending a definite decision being arrived at in regard to this question of metre gauge policy, that the Madras Railway Company should not be committed to what might prove to be infructuous expenditure on broad gauge works where there seems good reason to hope that the metre gauge may ultimately be adopted. If ever a continuous line of railway should become a *fait accompli* along the west coast of India—and with the Tinnevelly-Quilon, the Shoranur-Cochin, the Calicut-Cannanore and certain proposed lines near Bombay on the tapis or under consideration, it does not seem unreasonable to expect that within a reasonable period there will be such a continuous line—it will certainly be a metre gauge railway; and any short intervening broad gauge sections, if unfortunately they should be allowed to come into existence, will certainly be sooner or later converted. In view of these considerations it seemed to this Government to be quite essential that the broad gauge should not be drifted into for the Cannanore extension through mere absence of forethought, and of due consideration of all the conditions so far as it was possible to foresee them; and the result of correspondence which has ensued is that the Government of India have ordered that no work on the Calicut-Cannanore line should be entered on which would be likely to prejudice the consideration of the question of gauge.

10. What I have in view for the Madras Railway Company, much of it possibly yet a long way off, but none the less for all that deserving of careful consideration in connection with this large problem, is that, sooner or later, they should work the following extensions and branches on the metre gauge; and that necessarily, in connection with such working, they should convert the following sections of their own line from the broad to the metre gauge:—

393 *miles new branches or extensions to be built.*

Calicut-Cannanore	62 miles.
Shoranur-Cochin	73 „
Podanur-Dindigul	118 „
Erode-Nanjangod-Mysore	130 (15 already exist).
Mettupalaiyam-Satyamangalam	25 miles.

137 *miles existing main line and branches to be converted.*

Podanur-Shoranur	57 miles.
Shoranur-Calicut	54 „
Podanur-Mettupalaiyam	26 „
Total, future metre gauge for Madras Railway Company ..	520 „

Thus what is contemplated is the construction by the Madras Railway Company of 393 miles of new metre gauge line, some of it for the Rajah of Cochin, and the remainder by State guaranteed debentures raised on what may be called Cannanore terms; and the conversion from standard to metre gauge of 137 miles of their present line; with, in addition, the working of the 15 miles section of the Mysore State Railway between Nanjangod and Mysore. But it seems probable that the Mysore State may desire to build the 30 miles of the Erode-Nanjangod line, which lie within their territory, as part of their own system, to be leased, with the 15 miles Nanjangod-Mysore section, to the Madras Railway Company; and in that case the new mileage on this branch to be arranged for by the Madras Railway Company would be 85 only.

11. It will be convenient in this note to complete the arguments in favour of the adoption of the above scheme by Government and the Madras Railway Company by pointing out that, if it is carried out, the locomotive running lengths will be as follows. Between Madras and Podanur, the broad gauge engine runs will be divided as may suit best for the distance, 302 miles; there are engine stations at present on this length at miles 42, 80, 132, 207, 243 and 302. For the metre gauge system the important junction of Podanur, where all metre gauge engine and rolling stock works would be situated, would be the engine-homing station for the following daily runs:—Podanur to Shoranur and back 114 miles, Podanur to Dindigul 118 miles, Podanur, by rack rolling stock, through Mettupalaiyam to Ootacamund and back, 104 miles. The Nanjangod-Erode run 114 miles would be worked from Erode where the Company have got old accommodation. It may be that the ghât pusher engines could be utilized for the short connecting link of 25 miles between Satyamangalam and Mettupalaiyam. Shoranur would serve as the engine-homing station for the two runs, Shoranur to Cannanore 116 miles, and Shoranur to Cochin 73 miles with prospects of extension afterwards in the Quilon direction.

12. As it is not only as an engine-homing station that Podanur will be useful, but also as the locomotive workshop centre for the metre gauge sections, it seems possible to work in with this the reduction of the area of new shops likely to be required at Perambore, the existing locomotive shops of the Madras Railway Company, if the East Coast Railway or part of it should be leased to that Company.

13. Taken as a whole, the scheme seems to me to be an eminently good one, and one which ought to prove equally acceptable to the Company and to Government. From Podanur westward, and throughout the whole area to be served, there is no traffic, nor so far as can be judged is there ever likely to be any traffic, at all approaching to that on parts of the South Indian Railway metre system. By the adoption of this scheme, the Madras Railway Company would secure the trade of the important tract of country, now undoubtedly their proper territory, which the proposed branch from Podanur through Udamalpet, Dharapuram and Palni to Dindigul will serve. They would also retain all the advantages of trading direct with Mysore, advantages which will certainly be snatched from them if the South Indian Railway Company are allowed to extend to Nanjangod. The cost and difficulty of conversion are not serious. I am now making enquiries as to what similar work has cost on former occasions, and have already ascertained that the conversion of the Guntakal-Bellary section, 30 miles in length, was effected during only 30 hours' stoppage of traffic, and that Rs. 700 per mile was all that was spent (apart from buildings and transhipment arrangements at Erode) on the conversion of the 167 miles from Negapatam to Erode.

14. Should this policy commend itself to Government and to the Madras Railway Company, it would be wise to convert the Calicut-Podanur section with as little delay as possible after rolling-stock had been provided, so that all might be in working order by the time the extension to Cannanore and the Cochin branch were finished. The conversion of the Mettupalaiyam branch might advantageously be done in time for the opening of the Mettupalaiyam-Coonoor section of the Nilgiri Railway, and in that case the Nilgiri rolling stock could be used on the branch. At Erode, and also at Podanur through the Dindigul branch, the Madras Railway Company's metre system would connect with that of the South Indian Railway Company.

15. Having, in paragraphs 6 to 14, recounted the principal reasons which have led to the proposal to adopt a narrow gauge policy for the Madras Railway extensions and feeders south and west of Podanur, I proceed, following last year's practice, to group the 17 projects, referred to as still alive, in paragraph 5, around the main or trunk systems with which they seem to be naturally connected, or by the agency of which they seem likely to be worked when completed.

Madras Railway Company's Group of Lines.

16. *I. Calicut-Cannanore, 62 miles, Rs.* 73,75,000.—I have increased the length of this extension from the 59 miles given last year, because though there will be some reduction of length due to the recent re-alignment, the line will certainly be extended to Baliapatnam, Cannanore being no place to stop it. Since the inspection recorded in G.O., No. 695, dated 21st September 1897, a great deal of survey has been done and with most satisfactory results, and I quite expect to see a substantial reduction in the estimate, quite apart from any question of gauge. The survey parties are still in the field. In November 1897 the Agent, Madras Railway Company, learnt from his Board that they had raised £100,000 for the Calicut-Cannanore extension in the form of 2½ per cent. debentures at £99. The Government of India telegraphed on the 29th December 1897 that work might proceed on the first 26 miles, and immediately after they allotted one lakh for land and 2½ lakhs for works for expenditure in 1897–98. Very little of this however was spent, as delay unavoidably occurred in making over the land. The Company have been authorised to collect materials and to do certain classes of work which will not result in waste if the metre gauge should be decided on.

17. *II. The Arcot Branch, 4·35 miles.*—With our No. 467 R., dated the 15th July 1897, we sent to the Government of India an estimate for this short branch, amounting to Rs. 2,58,065. In forwarding it for the sanction of the Secretary of State, the Government of India recommended that negociations with the Company should be conducted on the basis of their raising money for it on the terms of capital being converted at the prescribed or average rate of exchange, and of the application of the same rate to the interest thereon. Under this arrangement the estimate was raised to Rs. 2,98,000 by adding a sum equivalent to difference in exchange on expenditure in England between the rates of 1*s.* 10*d.* and current rates. These conditions being accepted by the Company, work was allowed to proceed. At the present moment land is being acquired and some improvements are being carried out in the alignment which will, it is believed, result in economy.

18. *III. The Madras Harbour Branch, about 1 mile, Rs.* 2,00,000.—The maturing of this useful project has been greatly hampered by the necessity for considering the requirements and convenience of the Harbour Trust Board. They, reasonably enough, object very strongly to any interference with their existing arrangements for handling the trade of the port, and indeed to the Madras and South Indian Railways coming to any permanent arrangement until such time as their own schemes for extending the accommodation of the port, whether by docks or by boat basins, shall have been brought to maturity. But certain proposals have quite lately been laid before the Harbour Trust Board and the Madras Railway Company which, if agreed to, will have the effect of allowing at least temporary arrangements to be made which, while securing to Madras the immense convenience of direct access by rail to the harbour face and to the business part of the city, will offer the minimum of interference with the conduct of the landing and shipping business. These temporary arrangements have been estimated at about Rs. 52,000, nearly the whole of which will be to the good if the permanent proposals are hereafter brought to maturity.

19. *IV. Shoranur-Cochin, 73 miles, latest rough estimate Rs.* 50,00,000.—Reference will be found in paragraph 9 of this note to an offer which this Government are in daily expectation of receiving, from His Highness the Rajah of Cochin, to construct this branch at his own expense and on the metre gauge. Correspondence on the subject has up to date been demi-official or confidential, because there are certain difficulties which have to be considered in the Political Department about the provision of land for nine or ten miles of the line by the neighbouring Native State of Travancore. These difficulties will doubtless disappear in due course, and meanwhile

the Madras Railway Company have a survey party in the field who are working on the same principles as those which, in the case of the Calicut-Cannanore extension, have resulted in such marked economy. It is quite hoped that, on the completion of the estimate, a metre gauge line may be found to be well within the means of His Highness the Rajah of Cochin, whose great desire is to become the owner of a railway from which such good results in the development of his State are expected.

20. *V. Podanur-Dindigul*, 118 *miles*, *perhaps Rs.* 80,00,000, *metre gauge.*—As information on the subject of this proposed line accumulates, it becomes more and more evident that the Madras Railway Company, who already have a grip on the trade of much of the country proposed to be served, should get the building of the line, and not the South Indian Railway Company. And yet it is clear that a metre gauge line will be quite large enough to carry the traffic. In July 1897, the Board of Directors of the South Indian Railway Company made an offer to construct the Madura-Pamban, Tinnevelly-Quilon, and Podanur-Dindigul lines *en bloc*. But for reasons given in our letter No. 533 R., dated the 5th August 1897, this Government advised the Government of India to refuse permission to the inclusion of the last-named line in that Company's programme for the present, but without prejudice to its re-consideration hereafter. This view of the matter was accepted by the Government of India in their letter No. 1746 R.C., dated the 22nd October 1897, in which they agreed with us that this particular project had better be shelved for the present, and concurred with us in the opinion that the metre gauge would suffice for it. Meanwhile, the Madras Railway Company had been keeping open their claim to build it, and had sent in an estimate for a survey.

21. The whole aspect of the question of which Company should be allowed to make this branch line has undergone a change since the Madras Railway Company have expressed their readiness to make metre gauge branches. I have explained in paragraphs 10 and 13 the reasons which have led us to favour the construction of this branch by the Madras Railway Company on the metre gauge; viz., that if built, it will form part of a large scheme of cheap and economically worked feeders to the standard gauge trunk line, connected therewith at Podanur and also at Erode; and moreover that the branch if made at all must be on the cheaper gauge; and that if the Madras Railway Company do not make it they will lose territory by reason of the tract being tapped by their rival the South Indian Railway Company. Evidence obtained from local Civil officials is to the effect that what the produce of the tract needs is a shorter outlet towards Calicut. The ten or twelve towns which are important enough to be tapped are so situated that the length of the line is considerably greater than if it went fairly straight from Podanur to Dindigul. But it is essentially a development line, and ought therefore to touch every village of importance. It will be a slow line, and length is therefore a matter of little moment in comparison with the picking up of traffic.

22. This Government have now put the imprimatur of their approval on the metre gauge scheme detailed in paragraph 10, in its entirety, and have advised the Government of India that, conditionally on the Madras Railway Company's acceptance of the full scheme as one to be gradually worked up to as occasion offers, their right to the Podanur-Dindigul line should be definitely recognized. I consider that the money for this line should be raised on conditions similar to those of the Calicut-Cannanore line, and that we should press for its inclusion in the financial programme for railway construction for the three years' cycle which will open in April 1899. Meanwhile, the Madras Railway Company might be authorised to make a regular survey.

23. *VI. Erode-Nanjangod Railway*, 115 *miles.*—Though in last year's note this scheme was put into the South Indian Railway group, it seems right this year to put it into the Madras Railway group, because it forms one of the sections which would be worked by the Madras Railway Company if the scheme detailed in paragraphs 6 to 14 should be approved. The Madras Railway Company naturally enough protest very strongly against the South Indian Railway Company being allowed to stretch another arm across their trunk, and to snatch traffic from South Mysore which the older Company consider to be theirs by right. But meanwhile the South Indian Railway Company came forward with an offer to survey the route, and, as they had men and appliances ready, their offer was recommended to the Government of India for

acceptance in this Government's letter No. 1054 R., dated the 30th November 1897. Permission was accorded to them to make the survey, and an estimate for Rs. 17,829 was sanctioned in the Government of India's letter No. 78 R.C., dated the 15th January 1898, but on the clear understanding that the making of the survey should not in any way prejudice the question of who is to make and to work the line hereafter, and that the results of the survey should be at the disposal of Government, the revenues of the South Indian Railway being reimbursed for the cost of them if they should hereafter at any time be made over to another Railway Company. The section of the line which lies within Mysore territory would be about 30 miles in length, and it seems likely that the Mysore Government may prefer that this section should be an integral part of their own State Railway system; in this case they would probably be willing to lease the 45 miles from the frontier to Mysore City to the Madras Railway Company if it is arranged that the latter shall construct and work the British portion. My latest information from the Chief Engineer of the South Indian Railway is that the Gajalhatti ghât by which the descent is made from the Mysore plateau is not nearly so formidable as was anticipated.

24. *VII. Mettupalaiyam-Satyamangalam link*, 25 *miles.*—This link is a necessary part of the new metre gauge scheme, to enable the rolling-stock of the Erode-Mysore section to get to Podanur for repairs, and also to shorten by 100 miles the distance to the Nilgiris from Mysore and the Deccan.

25. *VIII. Nilgiri Railway extension*, 11½ *miles*, *Rs.* 19,19,000.—In last year's note this was classed in the South Indian Railway group, as there was a proposal for that Company to work the Nilgiri Railway. But, now that arrangements are being negociated for its being worked by the Madras Railway Company, it must be grouped with that railway's extensions and branches. The Coonoor-Ootacamund extension has been recommended by the Conference of 1897 for construction by a Branch Line Company. With our letter No. 246 Ry., dated the 12th February 1898, this Government forwarded the plans and estimates, amounting to Rs. 19,19,000 inclusive of interest during construction, for the sanction of the Government of India, with a strong recommendation, that the 3 per cent. guarantee of interest for which the Company ask should not be withheld. It would be very convenient if the concession for this extension could be so settled that there need be no necessity for separate capital and revenue accounts to be kept for the old and new sections.

South Indian Railway Company's Group.

26. *IX. Madura-Pamban*, 100 *miles*, *Rs.* 43,00,000.—In the enclosure to the Government of India's letter, No. 8-R.P., dated the 23rd March 1898, we were informed that this project had been allotted a place in the programme agreed to at last year's Railway Conference, as a line considered suitable for construction by a Branch Line Company. In July 1897 we received an offer from the South Indian Railway Company to construct *en bloc* the Madura-Pamban, the Tinnevelly-Quilon, and the Podanur-Dindigul lines; and in addressing the Government of India on the subject of the first of the three, in our No. 530, dated 5th August 1897, we expressed a hope that it might be possible to allot to this line an early place in the programme of railways to be made on the direct financial responsibility of Government; but we said that, failing this, we would desire that it should be made by a Branch Line Company subsidiary to the South Indian Railway Company, and connected therewith through the rebate clauses of the Resolution No. 514-R.C., dated 17th March 1896. In their reply No. 1746-R.C., dated the 22nd October 1897, the Government of India said that, having regard to existing engagements, there was no chance of the lines referred to being allotted an early place in the ordinary railway construction programme; and that unless the South Indian Railway Company should definitely accept some such arrangement as a Branch Line Company it would be out of the question for the Madura-Pamban to be undertaken for many years. They then offered certain terms for the acceptance of the Travancore Durbar, the South Indian Railway Company, and this Government, for the construction and working of the Tinnevelly-Quilon line, and said that it must be clearly understood that the arrangements made for the construction of this line and the Madura-Pamban must stand or fall together, and that they were not prepared to consider any proposals for the construction of the latter which did not contemplate the undertaking of the former almost simultaneously. In reply

we explained that some delay was likely to occur in the settlement of the Tinnevelly-Quilon preliminaries, and that meanwhile we considered that the financing of the Madura-Pamban might go on, and that under all the circumstances we agreed that, with proper precautions, there need be no objection to a Branch Line Company being utilized for its financing. In their reply No. 90 R.C., dated the 17th January 1898, the Government of India said that they would await the views of the South Indian Railway Company on the proposal to finance the Madura-Pamban by the agency of a Branch Line Company: but that they were of opinion that before work is commenced on this line the Company should give an undertaking to construct a railway from Tinnevelly to the neighbourhood of Trivandrum or Quilon or other suitable terminus, either by the northern or southern route as may be decided by the Government of India, whenever called upon to do so, on the terms and conditions imposed in their letter No. 1746 R.C., dated the 22nd October 1897. We replied, in our No. 168 R., dated the 31st January 1898, that we would lay the whole matter before the South Indian Railway Company and the Travancore Durbar, and let the Government of India know the upshot in due course, and that meanwhile this Government very fully concurred in the fairness of taking this opportunity of so coupling up the poorer line with the richer one that the South Indian Railway should find it worth while not to make too high terms for working the former. On the question being referred to the Agent, South Indian Railway, he entered into correspondence with his Board. This correspondence is still in progress, and in their letter to their Agent, No. 204, dated the 11th February 1898, the Board say that they anticipate no difficulty, if the Madura-Pamban is financed by Branch line agency, in so arranging the terms of the agreements that the working Company shall retain the necessary full control over rates and working. In the Agent's letter to his Board No. 576, dated the 9th March 1898, he went carefully into all the bearings of the proposal to let their acceptance of the terms offered for the two lines stand or fall together, and ended by saying that he thought that the derived traffic from the Madura-Pamban and the Tinnevelly-Quilon lines taken together ought to secure his Company against loss on the working of the latter on the terms proposed. The Agent has since received a telegram from his Board accepting the Government of India's conditions.

27. *X. Tinnevelly-Quilon*, 103 *miles*, *Rs.* 1,01,62,000.—As stated in the paragraph about the Madura-Pamban line, the Government of India have insisted on the South Indian Railway Company agreeing to make and work a line from Tinnevelly to some place to be decided on, and by a route to be decided on, in the State of Travancore on certain terms which have been specified, before they can be permitted to undertake the Madura-Pamban line. Meanwhile we are in communication with the Travancore Durbar on the subject of the route which should be adopted, and of the terms for working which have been proposed by the Government of India for their and the South Indian Railway Company's acceptance. This Government is strongly impressed with the superior advantages of the Southern route where this and the northern route are compared as a whole. The South Indian Railway Company too appreciate the very superior advantages of the former from a traffic point of view. It is true that the British portion of the northern route passes through a very much richer district than the British portion of the southern route. But this is a matter of minor interest to the Railway Company who are concerned with the extension as a whole. It is believed by this Government that the estimated cost of the very difficult hill section of the northern route in Travancore territory has been taken at too low a figure. As a fact its survey was never really completed. We have thought it but fair to leave it absolutely to the Travancore Durbar to decide which route to adopt, laying all the facts before them. The decision of the Durbar is now daily expected. The following are the terms which the Government of India have proposed for the acceptance of the Travancore Durbar and the South Indian Railway Company for constructing and working this extension: (*a*) that the South Indian Railway Company should raise the whole of the necessary capital at 2½ per cent. in sterling under the guarantee of the Government of India, the Travancore Durbar underwriting that guarantee to the extent of the cost of the part of the line inside the State; (*b*) that the South Indian Railway Company should construct the line including rolling-stock at cost price, and then work it on completion as part of their own system at the same rate of working expenses as obtains over the whole system including this and all future branches;

(*c*) that the cost of maintenance during the first two years after opening be added to capital; (*d*) that surplus profits be divided between Government and the Durbar in proportion to the mileage in their respective territories. The acceptance or otherwise of these terms by the Durbar and the Company is still the subject of correspondence, but is believed to be very near.

28. *XI. Trichinopoly-Pudukkottai-Thondi*, 86 *miles*, *Rs.* 37,50,000.—Since I noted last year that this scheme was not ripe for sending forward to the Government of India, the South Indian Railway Company and the Rajah of Pudukkottai agreed to share between them the cost of a survey estimated at Rs. 29,369. In our letter to the Government of India, No. 718 R., dated the 23rd September 1897, we asked that permission might be accorded to make the survey. In their reply, dated the 21st October 1897, No. 1741, R.C., the Government of India suggested that we ought to consider the effect on the prospects of this line of the proposed Madura-Pamban and Mutupet-Avadyarkoil line. In our reply No. 1120 R., dated the 10th December 1897, we agreed that, in view of the prospect of the approaching completion of arrangements for the two important lines referred to, it would be better not to press just now for permission to survey the Trichinopoly-Thondi line. But we said that it must be understood that this decision was come to without prejudice to the question of the advisability of, later on, at the cost of the Pudukkottai State, surveying a short branch from Trichinopoly to serve the State, but not to extend beyond its southern or eastern boundaries. Meanwhile, the collection of traffic statistics goes on.

29. *XII. Trichinopoly-Tirukkóyilúr*, 90 *miles*.—This project is not yet ripe for putting forward, or for obtaining permission to survey it. The first official reference to it was in my note on famine railway projects, dated 14th August 1897; and, previously to this, I had collected a certain amount of information about it. It is intended as a substitute for the proposed Salem-Porto Novo line with a branch from Chinna Salem to Tirukkóyilúr, which was surveyed in 1887. The object of the old project was to stretch a railway across the large unprotected space between the Madras and South Indian Railways, comprising parts of Trichinopoly and South Arcot districts, in order that in times of famine access to certain difficult tracts might be made easier. But it seems obvious that the very same object may be attained, with the additional advantage of a short cut of 40 miles between Madras and southern India, by a line from Trichinopoly through Chinna Salem to Tirukkóyilúr. The scheme is not yet ripe to be dealt with.

30. *XIII. Negapatam-Nagore*, 4·67 *miles*, *Rs.* 2,51,000.—In sending forward the South Indian Railway Company's latest estimate for this short suburban extension, with our letter No. 107 R., dated the 20th January 1898, we expressed a hope that permission might be accorded to its being constructed as part of the South Indian Railway. In their reply, dated the 11th February 1898, No. 191 R.C., the Government of India asked for a reliable estimate of the traffic likely to be obtained. We have therefore collected all available information and have sent it to the proper authorities to be verified and, if possible, supplemented. The information asked for is now awaited.

31. *XIV. Amayanáyakkanúr-Kuruvanuth*, 75 *miles*.—The Government of India informed us, in their No. 1449 R.C., dated the 3rd September 1897, that they were not prepared to offer the 3 per cent. guarantee demanded by Messrs. Wilson & Co. On learning of this decision that Firm came forward, in January 1898, with a fresh offer to make the line under the Tramway Act without a guarantee. This Government, in letter No. 180 R., dated the 2nd February 1898, have sent forward the new offer to the Government of India with an expression of support, and have inquired whether the Government of India have any objection to our issuing an order under the Tramway Act. A reply has now been received to the effect that there will be no objection to such an order being issued, and suggesting the 2-ft. gauge. In my opinion the Firm of promoters will be very wise to adopt the 2-ft. gauge instead of the metre gauge for the branch, as, if properly equipped with up to date rolling stock, the smaller gauge will carry all the traffic likely to offer itself.

32. *XV. Mutupet-Avadaiyarkovil*, 45 *miles*.—The Government of India have now informed us, in their letter No. 303 R.C., dated the 5th March 1898, that they are prepared to recommend to the Secretary of State that the District Board of Tanjore should be permitted to make the proposed extension of their Mayavaram-Mutupet

Railway from Mutupet a further distance of 45 miles to Avadyarkoil; such capital as may be necessary over and above the Board's available balances being raised in the form of debentures having a currency of not more than 20 years. The security for the debentures would be the Mayavaram-Mutupet Railway and the receipts of the Special Railway cess. The first nine miles of the proposed extension have already been surveyed and have been estimated as likely to cost Rs. 4¾ lakhs. There will probably be no further difficulty and very little delay in starting upon this important extension. The financial position of the District Board in regard to the proposed policy seems to be perfectly sound.

Southern Mahratta Railway Company's Group.

33. *XVI. Kurnool road to Kurnool, 32 miles, Rs.* 11,50,000.—The latest information which we possess in regard to this project is contained in an enclosure to a letter from the Government of India, No. 1631-R.C., dated the 30th September 1897. This enclosure was a copy of a letter addressed by the Government of India to Colonels J. G. Lindsay and A. J. Filgate, in which, replying to their application to be allowed to construct it on "branch line terms," these gentlemen were informed that, though the Government of India were prepared to sanction the construction of the branch, they were not disposed to offer a firm guarantee of 3 per cent. for it, but would be prepared to favourably consider an offer for its construction and working under the rebate clauses of the branch line resolution, and to recommend the Secretary of State to sanction it, on suitable terms being arranged by the promoters with the Southern Mahratta Railway Company. Meanwhile, we addressed the Government of India in our No. 556 R. of the 14th August 1897, and, in forwarding traffic statistics which seemed to show that it would probably be commercially successful, we begged that due weight might be given to its importance as a famine work.

34. *XVII. Bezwoda-Masulipatam, 50 miles, Rs.* 22,50,000.—I bring this project into the Southern Mahratta group, though last year it was classed in the East Coast Railway group, because this Government is convinced that it ought to be looked on as an extension of the Southern Mahratta Railway, so as to aid the flow of the produce of the Kistna delta towards the dry districts around Bellary. This conviction was emphasised as strongly as possible in our letter to the Government of India, No. 546 R., dated the 9th August 1897. But we have learnt from the enclosures to the Government of India's No. 1640-R.C., dated the 30th September 1897, that an application to be granted a concession for this railway was refused to Colonels Lindsay and Filgate, on the grounds that "this project is not one for the construction of which the Government of India are prepared at present to make any arrangements." I am personally convinced that this Government's duty is to continue to press for the connection of the Bellary famine tracts with the Eastern Kistna delta and its granaries, by means of the extension of the metre gauge system from Bezwada to Masulipatam.

35. *XVIII. Arsikeri-Mangalore.*—The result of certain correspondence on the subject of this project which has been carried on during the past year between the Mysore Government and the Government of India, as communicated to us by the latter, is that it rests now with the Mysore Government to take the next step towards obtaining at a reasonable cost a railway for access to the Western Coast. My own opinion is that if the railway is really wanted, and the Mysore Government seem convinced that it is wanted, they would be wise to make it on the model of the Darjeeling-Himalayan Railway, for the ghât portion; and I see no reason why the same gauge should not be adhered to throughout the entire length of the branch. We learnt from the Government of India's letter, No. 1774 R.C., dated the 27th October 1897, that they definitely refused a recent offer from Mr. W. Lonsdale to make the branch without any guarantee, on the grounds that they had satisfied themselves that such a line, on the metre gauge, would not be financially successful.

East Coast Railway Group.

36. *XIX. Gopálpur-Berhampur Branch.*—The question of whether a branch should be made to Gopálpur has continued throughout the year to form the subject of correspondence. In their letter, No. 1502 R.C., dated the 10th September 1897, the Government of India informed us that they concurred in the opinion expressed by this

Government in letter No. 568 R., dated the 17th August 1897, that, in view of the uncertainty as to the amount of traffic to be dealt with, and of which of the local ports will best serve the interests of Ganjám, no branch to any port in the district should be undertaken at present. They then asked for a further report on these two points. The matter is still under inquiry. But a suggestion has been made that the interests of the district, as apart from local mercantile interests, might perhaps be better served by a light branch railway 50 or 60 miles in length, penetrating back to Goomsoor, rather than by a short branch to Gopálpur or any other port.

37. *XX. Vizianagram Raipur.*—A survey party, under the orders of the Government of India, is now in the field renewing the investigations carried out many years ago into the engineering and prospects of this most important project.

38. *XXI. Naupada-Parlákimedi.*—Early in February an application reached this department through the Board of Revenue from the Rajah of Parlákimedi to make a steam tramway, as a private undertaking, at his own expense, from Naupada station of the East Coast Railway to Parlákimedi, the capital of his estate, a distance of 26 miles. With the application further proposals for extensions were foreshadowed, but not yet brought definitely forward. In our letter No. 259 Ry., dated the 15th February 1898, we addressed the Government of India on the subject, enquiring whether there was any objection on their part to the publication of an order under the Tramway Act to permit of the line being made. In their reply No. 2 R.P., dated the 14th March 1898, the Government of India said that they had no objection, but made certain provisos, which are still the subject of enquiry through the Board of Revenue. The Government of India suggested that the 2-ft gauge should be adopted.

The Light Feeder Famine Railway Group.

39. In reply to instructions contained in the Government of India, Revenue Department, letter No. 18—31—1, dated the 18th September 1896, that we should put forward a limited number of railway projects for the Presidency, arranged in accordance with their famine protective value, this Government in the Revenue Department addressed the Government of India in letter No. 169, dated the 22nd March 1898, putting forward the following list of lines which were decided on only after long and careful discussion: Hospet to Kottur, 35 miles; Kalikeri to Ráyachóti, 32 miles; Morrapur to Dharmapuri, 16 miles; Tiruppatúr to Krishnagiri, 25 miles; Bellary to Rayadrug, 33 miles; and Narsaraopet to Pondugal, 45 miles: total 186 miles of 2-ft. railway likely to cost, perhaps, 50 lakhs. We begged that for the construction of these six short lines we might be given, from the Famine Insurance Fund, the sum of 10 lakhs annually for the next five or six years. It is proposed that they should be worked by the agency of the parent lines to which they would form feeders.

Ootacamund,
1st May 1898.

Francis J. E. Spring,
Consulting Engineer for Railways.

Public Works (1898) Department.

Railway

CURRENT No. 330.

SERIAL No. 1

From The Govt. of India

Order

No. 280 RC.

Dated 28th February 1898

Received 7.3.98.

Registered

Enclosures

Spare copies

SUBJECT.

Railway Projects.

Stating that any proposals in connection with ___ should be submitted so as to reach the Govt. of India not later than the 15th May for consideration at the yearly Conference to be assembled at Simla in the Summer of this year.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

CONSULTING ENGINEER FOR RAILWAYS
RECEIVED
7 MAR 1898
MADRAS.

No. 280 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY CONSTRUCTION.

To

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

THE CHIEF COMMISSIONERS OF THE CENTRAL PROVINCES AND ASSAM.

THE RESIDENTS AT HYDERABAD AND IN MYSORE.

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

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

THE MANAGERS, NORTH WESTERN, OUDH AND ROHILKHAND, EASTERN BENGAL AND EAST COAST STATE RAILWAYS.

Calcutta, the 28th February 1898.

SIR,

I am directed to inform you that the yearly Conference to consider the question of Railway extension in India will assemble at Simla in the summer of this year, and that any further proposals, or fresh information in connection with projects which have already been submitted by your Government/Administration for the consideration of past Conferences, as well as any proposals for new lines not yet considered, should be submitted so as to reach the Government of India not later than the 15th May.

I am also to impress upon you the importance of submitting, with all proposals, the fullest information obtainable in regard to the estimated cost and financial prospects of the projects proposed so as to assist the Conference in forming an opinion upon their merits.

I have the honour to be,

SIR,

Your most obedient Servant,

F. Rupcote

Secretary.

Documents accompanying.

Nil.

To The Joint Secretary to the Govt of Madras
Public Works Department
Railway Branch

G. I. C. P. O.—No. 1516 P. W. D.—1-3-98.—300—N. C. D.

H.E. The Governor

RAILWAY CONFERENCE 1898.

As I have run the time rather close, and as His Excellency and Honourable Mem-bers may wish to take a little time to read these papers before passing orders on them, I am sending them separate copies for perusal.

His Excellency may perhaps wish to consider the proposals in Council.

I seem to know by heart what His Excellency's and Honourable Members' wishes are in the matter of all the schemes, so to save time I have ventured to draft a letter to India in lieu of merely noting for orders.

But both the Consulting Engineer's Note and the draft letter are standing in type, so that any alterations ordered can be carried out without delay.

I appear to Mr. Strong's Note and draft letter. Both the Hon Members wish to discuss any points or points in Council. I am ready to join with them in doing so.

A.H.H
3.5.98

I have embodied the Hon Lt-H. Bliss' notes in the copy of the proof draft below. The Hon Mr Grose and H.E. have approved of the draft.

Will Hon Members please see H.E.'s note above. ~~not~~ if there is no need for discussion in Council the draft can issue at once. H.E. has seen the question.

JHS
4/5/98

The Hon. Lt H-Bliss K.C.I.S.
" " Mr J. Grose C.I.S.

I don't think there is any need for any discussion — The draft quite meets my views as it stands

HB
4/5/98

HG
4/5/98

JHS 4/5/98
Joint Secretary

issue JHS 4/5/98

R 4/5 HWS 4/5 RJ 4/5

Minute by Lt. H. Blair R.E. 15.

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7/5

2/5

Joint Secretary

See notes on draft letter

BS
2/5/98

Passed on to H.E. the Governor

7/5

2/5/98

Sent. P.M.H.
3.5.98

7/5
2/5
12.41½

The Hon. Mr. J. Gore C.I.S.

Draft approved
JG
3/5/98

RAILWAY CONFERENCE 1898.

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FVS
2/5/98
Joint Secretary

Hulse
2/5/98 R1/5

No. .

LETTER—from

FRANCIS J. E. SPRING, ESQ., C.I.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Railway Branch,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT,

DATED OOTACAMUND 1898.

SIR,

In accordance with the instructions conveyed in your Circular letter No. 280 R.C., dated the 28th February 1898, I am directed to address you on the subject of the railways and projects in this Presidency which seem ripe for discussion at this year's Simla Conference.

2. The accompanying note by this Government's Consulting Engineer brings up to date the history of all the new and projected railways. It will be seen that some of the projects are still not quite ripe for putting forward as definitely as might be desired. Negociations in respect of several of these, however, are now so near completion that there is every reason to hope that, between now and the sitting of the Conference, it may be possible to lay before the Government of India matured proposals for several projects which at this date just fall short of maturity.

3. The chief feature of this year's proposals, and one on which this Government desires to lay great stress, is the new metre gauge conversion and construction policy enunciated in paragraphs 6 to 14 of the Consulting Engineer's memorandum. The subject has been fully dealt with in my letters Nos. 527 Ry., 540 Ry. and 613 Ry. dated the 4th, 6th and 23rd April 1898, respectively. It is unnecessary here to repeat the arguments used in these letters, and I am therefore instructed merely to express the hope that the policy in question, which this Government is convinced is for the best interests of the Imperial Government, of the Madras Railway Company and of this Presidency, may receive such support at the hands of the Government of India as shall ensure its ultimate acceptance by the Secretary of State and the Madras Railway Company.

4. Paragraph 39 of the Consulting Engineer's note refers to the narrow, 2-ft. gauge, famine feeder policy, for which this Government pressed so strongly in its Revenue Department letter No. 169, dated the 22nd March 1898. I am instructed here to repeat that in the opinion of His Excellency the Governor in Council the portion of the Famine Insurance Fund which it may be considered just to allot to this Presidency could in no other way be more advantageously utilised for the purposes for which the Fund was designed; and to express a hope that it may be found possible to allot a regular annual grant, sufficient to allow of the completion of the programme, put forward in the letter above referred to, within a period of five or six years.

5. Out of the XXI projects which have been recited in the Consulting Engineer's memorandum, the following five may be set apart as being outside the scope of this year's programme; either because they are not ripe for putting forward, or because for one reason or another they seem for the present to have fallen through:—

XI. Trichinopoly-Puddukottai-Thondi.
XII. Trichinopoly-Tirukkoyilur.
XVIII. Arsikere-Mangalore.
XIX. Gopalpur-Berhampur.
XX. Vizianagram-Raipur.

6. Out of the sixteen which remain, two, I. *Calicut-Cannanore* and II. *Arcot-Ranipet* have been definitely sanctioned; the Government of India have expressed their intention to finance one, X. *Tinnevelly-Quilon*; for three, IX. *Madura-Pamban*, VIII. *Coonnoor-Ootacamund*, and XV. *Mutupet-Avadaiyárkovil*, the Government of India have said that they are prepared to allow arrangements to be made under the branch line conditions; this Government has been given permission to allow two, XIV. *Ammaya-náyakkanur-Kuruvanuth*, and XXI. *Naupada-Parlákimedi*, to be made under the Tramway Act; one, IV. *Shoranur-Cochin*, will in all probability be financed by His Highness the Rajah of Cochin; and it seems reasonable to expect that no obstacle will be offered by the Government of India to arrangements being made for the short extensions, III from *Rayapuram to Madras Harbour* and XIII. from *Negapatam to Nagore*.

7. This Government feels justified in looking upon the eleven projects referred to in paragraph 6 as being for all practical purposes secured. I am therefore instructed to make no further reference to them here, beyond promising that as the necessary preliminaries in regard to them become more and more mature the Government of India shall continue to be addressed as to details, and to be furnished with such information as may be necessary to permit of the passing of final orders in regard to them. The five projects referred to in paragraph 5 as for one reason or another not being fit to put forward, and the eleven projects recited in paragraph 6 as being secure or practically secure, shall all be omitted from the schedule of lines arranged in order of preference which it is the object of this letter to lay before the Government of India for consideration at the Conference.

8. The five remaining projects are as follows:—

VI	*Erode-Nanjangód*	110 miles.
VII	*Mettupálaiyam-Satyamangalam*	25 ,,
V	*Pódanúr-Dindigul*	118 ,,
XVII	*Bezwada-Masulipatam*	50 ,,
XVI	*Kurnool road-Kurnool*	32 ,,

9. The last two of these may conveniently be first dealt with. The former would be a branch, and the latter an extension, of the Southern Mahratta metre gauge line; and both are, in the opinion of this Government, eminently necessary for the full utilization of the extension of the Southern Mahratta Railway to the Kistna district. The Bellary-Kistna Railway was the outcome of a wise famine policy, the full benefits of which can however never be fully reaped until the metre gauge system which traverses the dry Bellary districts is made to penetrate in amongst the granary towns of the Eastern Kistna delta, and until, through the intermediary of the railway traffic officers, the grain dealers of the two tracts which differ so largely in climatic conditions, are brought into intimate business contact, so that when famine is again experienced grain may flow from where it is abundant to where it is scarce, with the least preventible friction. The Kurnool branch and the 1st, 2nd, 5th and 6th of the 2-ft. famine feeder projects form the minor distributing channels which are designed to facilitate the dissemination, amongst the villages of the most difficult tracts, of the cheap grain which there is every reason to expect will flow from the Eastern Kistna delta, if the Masulipatam extension is brought to a successful issue. His Excellency the Governor in Council instructs me to say that he hopes that every facility may be afforded to the Southern Mahratta Railway Company, or to branch line Companies associated with them, to construct these two important sections at a very early period. It seems likely that, if due attention is paid to economy of construction, Rs. 35,000 per mile ought to suffice to construct the 32 mile Kurnool branch, and Rs. 45,000 per mile the 50 mile Masulipatam extension, or a total capital outlay of 34 lakhs for the two, demanding a provision of perhaps not over one lakh per annum for interest, a sum which it seems scarcely possible would not be more than recouped by improved traffic on the main Southern Mahratta Railway, as well as by the net earnings of the branches themselves.

10. The *Erode-Nanjangód*, the *Mettupálaiyam Satyamangalam*, and the *Pódanúr-Dindigul* lines find an important place in the policy, in regard to which the Government of India have been already addressed, of metre gauge branches and extensions for the Madras standard gauge railway. It may be convenient here to repeat that both

South Mysore and the district lying south-east of Podanur are considered by this Government to be properly the trade tract of the Madras Railway, and not of the South Indian Railway. Both the Mysore branch and the Dindigul branch of the Madras Railway are, in the opinion of this Government, necessary for the proper development of important tracts of country and of important trade interests, and ought to be brought to maturity as soon as they can be admitted within the programme of lines on whose capital cost a guarantee must be offered. As already explained elsewhere the short *Mettupalaiyam-Satyamangalam* section is an essential feature in the new metre gauge network. These three lines, which if economically designed ought to be built for perhaps within Rs. 200 lakhs, must, in the opinion of this Government, be arranged for with the Madras Railway Company on Calicut-Cannanore terms. It seems likely however that the Mysore Government may prefer to themselves construct, or underwrite the guarantee for, the 30 mile portion of the Nanjangod line lying within their territory. Should they do this it would be essential that it should be arranged with the Durbar that the Madras Railway Company should lease the 45 mile section from the frontier to Mysore, because the city of Mysore is the Company's objective for trading purposes.

11. As it does not seem possible that surveys and projects for these proposed metre gauge extensions of the Madras Railway should be ready before April 1899, it seems unnecessary now to say more on the subject beyond communicating to you the strong desire of His Excellency the Governor in Council that the Government of India may see their way to support the scheme.

12. Taking for granted that the eleven projects detailed in paragraph 6 are practically as good as secured, it seems only necessary now to schedule the following five in the order of preference allotted to them by this Government:—

Number in order of preferred priority.	Number in the Consulting Engineer's note.	Name of project.	Line in connection with which to be worked.	Source of supply of funds.
1	XVII	Bezwada-Masulipatam	Southern Mahratta Ry.	Branch Line Company.
2	XVI	Kurnool road-Kurnool	Do.	Do.
3	VI	Erode-Nanjangod	Madras Railway ..	Calicut-Cannanore terms.
4	VII	Mettupálaiyam-Satyamangalam ..	Do. ..	Do.
5	V	Podanur-Dindigul	Do. ..	Do.

13. In conclusion I am instructed to say that between now and the date of the sitting of the Conference all information of any value which may be collected shall be forwarded in due course to the Government of India.

I have the honour to be,
Sir,
Your most obedient servant,

Joint Secretary.

Form No. (2).

A

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Letter from the Government of India, No. 280 R. C., dated the 28th February 1898.

Note by the Consulting Engineer for Railways, Madras, dated 1st May 1898 for the Railway Conference of 1898,

No. 688 Ry. dated 4th May 1898.

The Government of India will be addressed.

7 Rs.

4/5/98 R.

No. 689 Ry.

LETTER—from

FRANCIS J. E. SPRING, ESQ., C.I.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Railway Branch,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT,

DATED OOTACAMUND, 4th May 1898.

SIR,

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2. The accompanying note by this Government's Consulting Engineer brings up to date the history of all the new and projected railways. It will be seen that some of the projects are still not quite ripe for putting forward as definitely as might be desired. Negociations in respect of several of these, however, are now so near completion that there is every reason to hope that, between now and the sitting of the Conference, it may be possible to lay before the Government of India matured proposals for several projects which at this date just fall short of maturity.

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XIX. Gopalpur-Berhampur. (a)
XX. Vizianagram-Raipur. (a)

His Excellency the Governor in Council attaches great importance to No. XX, the long desired Vizianagram-Raipur line, and hopes that it may be found possible, very soon to bring it into the railway programme for all India, and to arrange for its early completion.

6. Out of the sixteen which remain, two, I. *Calicut-Cannanore* and II. *Arcot-Ranipet* have been definitely sanctioned; the Government of India have expressed their intention to finance one, X. *Tinnevelly-Quilon*; for three, IX. *Madura-Pamban*, VIII. *Coonnoor-Ootacamund*, and XV. *Mutupet-Avadaiyárkovil*, the Government of India have said that they are prepared to allow arrangements to be made under the branch line conditions; this Government has been given permission to allow two, XIV. *Ammaya-náyakkanur-Kuruvanuth*, and XXI. *Naupada-Parlákimedi*, to be made under the Tramway Act; one, IV. *Shoranur-Cochin*, will in all probability be financed by His Highness the Rajah of Cochin; and it seems reasonable to expect that no obstacle will be offered by the Government of India to arrangements being made for the short extensions, III from *Rayapuram to Madras Harbour* and XIII. from *Negapatam to Nagore*.

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13. In conclusion I am instructed to say that between now and the date of the sitting of the Conference all information of any value which may be collected shall be forwarded in due course to the Government of India.

I have the honour to be,
Sir,
Your most obedient servant,

Joint Secretary.

Despatched on 7/5/98

THE RAILWAY CONFERENCE OF 1898.

Note by the Consulting Engineer for Railways, Madras.

1. During the year which ended on the 31st March 1898, satisfactory progress has been made in negociations in regard to a number of the lines which were pressed for in our letter to the Government of India, No. 332 Ry., dated the 10th May 1897. The Calicut-Cannanore extension, 62 miles, and the Arcot branch, 4 miles, have been definitely arranged for, and work on them has been started. The Government of India have offered terms for the Madura-Pamban, 100 miles, and for the Tinnevelly-Quilon, 103 miles, which seem certain, after negociations and with a little diplomacy, to be accepted by the South Indian Railway Company and by the State of Travancore. We are now in daily expectation of receiving an offer, from the Rajah of Cochin, to provide the capital required for the construction of the Shoranur-Cochin line, 73 miles; and this offer will, there can hardly be a doubt, prove acceptable. The Government of India have expressed their willingness to recommend to the Secretary of State that the Tanjore District Board should be permitted to finance the proposed extension of their Mayavaram-Mutupet line to Avadyarkoil, 45 miles. We may, I hope, count upon the acceptance by the Secretary of State of the project lately sent up for extending the Nilgiri Railway a further distance of 12 miles to Ootacamund. The South Indian Railway Company's proposed short suburban extension of 4 miles from Negapatam to Nagore may also doubtless be counted on as certain to be sanctioned. The Government of India have provisionally approved of a proposal, not contemplated at the time of the last Conference, by the Rajah of Parlakimedi, to construct a light railway at his own expense about 25 miles in length, from Naupada to Parlakimedi. Thus, with a fair degree of certainty, we may count upon securing the early construction of 428 miles of new railways in the Presidency.

2. But besides the above 428 miles which we may fairly count on getting in the near future, there are the following 300 miles in regard to which negociations are progressing satisfactorily. A survey of the Erode-Nanjangod link, 114 miles, is in progress, and I learn from the Chief Engineer of the South Indian Railway that the ghât to be negociated is not likely to prove as difficult as was anticipated. A business firm in Madras are nibbling at the Ammayanáyakkanúr-Kuruvanuth project, 75 miles, and they expect shortly to be in a position to come forward with a definite offer for it. The Madras Railway Company seem likely to make reasonable proposals for the projected branch from Podanur to Dindigul, 110 miles. The short extension of about 1 mile, from the Madras Railway Company's terminus at Kayapuram to the Madras Harbour face, is the subject of negociations with the Harbour authorities and is likely I hope very soon to be brought to a practical issue.

3. Three projects aggregating 161 miles in length may for the present be dropped out of sight, namely, the Trichinopoly-Thondi, 86 miles; the Vizianagram-Bimlipatam, 15 miles; and the Vizianagram-Saluru, 60 miles. We have expressed concurrence with the Government of India that the first is not wanted in the near future; and the concessionaires of the other two have not apparently been able to do anything with their concessions. There seems every reason to hope that, in lieu of the projected branch from Vizianagram to Saluru, the important trunk line from Vizianagram to Raipur in the Central Provinces may within a reasonable time get past the project stage.

4. Of the nineteen projects put forward in a table of preference with this Government's letter to the Government of India, No. 332 Ry., dated the 10th May 1897, fifteen have now been dealt with (and one new one extra). The four which remain, aggregating 226 miles in length, are the following: the Masulipatam-Bezwada, 50 miles; the Kurnool branch, 32 miles; the Arsikere-Mangalore, 137 miles; and the Gopalpur-Berhampur, 7 miles. I may predicate of two of these that this Government is as

anxious as ever it was to secure the very early construction of the Kurnool branch and of the Masulipatam extension, through the agency of the Southern Mahratta Railway Company or of Branch line Companies connected therewith. The very heavy estimate of the cost of the projected branch to connect the Mysore plateau with the port of Mangalore has led to its being indefinitely shelved; but I understand that, rather than shelve it, the Mysore Durbar would prefer to make it on the 2-ft. gauge, and in my estimation most wisely; the Darjeeling-Hymalayan line affords an excellent and well-paying model for the ghât portion. There is an idea of reviving the question of connecting the East Coast Railway with a port in Ganjam by extending the projected Gopalpur-Berhampur line a considerable distance westward so as to tap the fertile Goomsur taluk, possibly on the 2-ft. gauge.

5. I have now referred in a general way to all nineteen of last year's schedule, and to one over, the Parlakimedi line; and have shown that 428 miles of them, involving nine projects, are likely to be secured in the near future; that 300 miles of them, involving four projects, seem in a fair way to being definitely put forward; that negociations for four projects aggregating 226 miles in length are likely to continue; and that 161 miles, involving three projects, may be looked on for the present as dropped from the programme.

6. It will at this stage be convenient to explain very fully how we have been driven into advocating an important change of policy in regard to the gauge of 137 miles of the south-western end of the Madras Railway, and of the projected extensions and existing and projected branches thereof,—a policy which, if accepted, will result in 520 miles of metre system being worked by the Madras Railway Company.

7. Proposals to extend the area served by this Company's system have always been met by the objection that, for the traffic of the areas proposed to be served, a broad gauge railway is too expensive a carrying machine. As it never seemed to have occurred to the Company that they might advantageously extend the area of their business operations by offering to undertake the construction and working of feeders and extensions upon a cheaper scale than that of their main line, they have been obliged, with much dissatisfaction and very natural grumbling, to look on at the gradual extension across their lawful territory of the cheap and efficient South Indian Railway, which seemed likely, sooner or later, to suck away much of the life blood of the older and more conservative and slowly moving organization. But during the last twelve months, in connection with the question whether the south parts of Mysore—a tract which seems undoubtedly to be within the lawful sphere of trading influence of the Madras Railway—should be tapped by that railway or by its rival, the Madras Railway Company expressed their willingness, officially and definitely, to work and to construct metre gauge branches. This, in my opinion, is a most wise decision, and one which, once arrived at, deserves all possible encouragement at the hands of this Government.

8. As we are not dealing with the question of great through trunk lines or of strategic lines, it may be taken as an axiom that it is desirable that, so far as may be possible, certain tracts of country, tracts which as a rule will have their boundaries fairly well defined, whether by natural physical features, climate, topography, soil, produce, or by the existing course of trade and its financing, should be made over to certain railway organizations to work, without fear of encroachment from rivals. I refer of course to India, where the relations of the monopolist to the public can be fairly effectively controlled by Government. A system of railways, to serve such a tract as it ought to be served, may be compared to a river and its feeders, if not in its gauge, then at least in its carrying capacity as measured by the number of trains which it runs on its several parts. Far up towards the "divide" it will sometimes happen that, even with one train a day each way, a railway on the broad gauge is a very uneconomical machine for the work to be done, or ever likely to be done; and it becomes in that case a question, to be decided by experience and by comparative estimates, whether the additional expense involved in change of gauge and in a separate rolling stock organization may not be more than balanced by the economy of working which results from the better co-ordination of means with ends. Thinking on these lines brings us logically in some cases to metre gauge branches or extensions of standard gauge systems, and sometimes perhaps to narrow, *e.g.*, 2-ft.

gauge, commercial branch feeders for standard or metre gauge systems. If the standard gauge is known to cost, say Rs. 1,00,000, metre gauge cheap branches in a poor country Rs. 50,000, and 2-ft. gauge feeders on district roads Rs. 25,000, per mile, very little consideration will show that the adoption of break of gauge, the cost of which is now pretty well known though not specifically charged to the public, may in certain cases prove to be a wise and an economical measure; always predicating that it is not strategic lines or great through trunk lines that are under consideration, but strictly commercial lines for the haulage of third-class passengers from village to village and of produce between the villages and the nearest port or mart.

9. It would be greatly to be regretted if, having given in their adherence to so wise a policy, the Madras Railway Company should afterwards find themselves seriously hampered by reason of the length, or the position, of their metre gauge branches being such as to make their economical working impossible. Thus if they found on their hands only the Dindigul branch, on the metre gauge, it would undoubtedly be difficult to work it economically as an isolated section. But during the progress of enquiries by His Highness the Rajah of Cochin, through the Political Department, as to the possibility of himself, without financial aid from Government, providing the capital necessary for the projected Shoranur-Cochin Railway, it suggested itself that by the adoption of the metre gauge His Highness would find it possible to become the owner of the line, and that with little or no borrowing. But negociations in such matters take time, especially as there is a complication in connection with the necessity for part of the proposed line passing through the lands of the neighbouring State of Travancore; and meanwhile sanction had come to start work on the Calicut-Cannanore line. It seemed right, pending a definite decision being arrived at in regard to this question of metre gauge policy, that the Madras Railway Company should not be committed to what might prove to be infructuous expenditure on broad gauge works where there seems good reason to hope that the metre gauge may ultimately be adopted. If ever a continuous line of railway should become a *fait accompli* along the west coast of India—and with the Tinnevelly-Quilon, the Shoranur-Cochin, the Calicut-Cannanore and certain proposed lines near Bombay on the tapis or under consideration, it does not seem unreasonable to expect that within a reasonable period there will be such a continuous line—it will certainly be a metre gauge railway; and any short intervening broad gauge sections, if unfortunately they should be allowed to come into existence, will certainly be sooner or later converted. In view of these considerations it seemed to this Government to be quite essential that the broad gauge should not be drifted into for the Cannanore extension through mere absence of forethought, and of due consideration of all the conditions so far as it was possible to foresee them; and the result of correspondence which has ensued is that the Government of India have ordered that no work on the Calicut-Cannanore line should be entered on which would be likely to prejudice the consideration of the question of gauge.

10. What I have in view for the Madras Railway Company, much of it possibly yet a long way off, but none the less for all that deserving of careful consideration in connection with this large problem, is that, sooner or later, they should work the following extensions and branches on the metre gauge; and that necessarily, in connection with such working, they should convert the following sections of their own line from the broad to the metre gauge:—

393 *miles new branches or extensions to be built.*

Calicut-Cannanore	62 miles.
Shoranur-Cochin	73 „
Podanur-Dindigul	118 „
Erode-Nanjangod-Mysore	130 (15 already exist).
Mettupalaiyam-Satyamangalam	25 miles.

137 *miles existing main line and branches to be converted.*

Podanur-Shoranur	57 miles.
Shoranur-Calicut	54 „
Podanur-Mettupalaiyam	26 „
Total, future metre gauge for Madras Railway Company...	520 „

Thus what is contemplated is the construction by the Madras Railway Company of 393 miles of new metre gauge line, some of it for the Rajah of Cochin, and the remainder by State guaranteed debentures raised on what may be called Cannanore terms; and the conversion from standard to metre gauge of 137 miles of their present line; with, in addition, the working of the 15 miles section of the Mysore State Railway between Nanjangod and Mysore. But it seems probable that the Mysore State may desire to build the 30 miles of the Erode-Nanjangod line, which lie within their territory, as part of their own system, to be leased, with the 15 miles Nanjangod-Mysore section, to the Madras Railway Company; and in that case the new mileage on this branch to be arranged for by the Madras Railway Company would be 85 only.

11. It will be convenient in this note to complete the arguments in favour of the adoption of the above scheme by Government and the Madras Railway Company by pointing out that, if it is carried out, the locomotive running lengths will be as follows. Between Madras and Podanur, the broad gauge engine runs will be divided as may suit best for the distance, 302 miles; there are engine stations at present on this length at miles 42, 80, 132, 207, 243 and 302. For the metre gauge system the important junction of Podanur, where all metre gauge engine and rolling stock works would be situated, would be the engine-homing station for the following daily runs:—Podanur to Shoranur and back 114 miles, Podanur to Dindigul 118 miles, Podanur, by rack rolling stock, through Mettupalaiyam to Ootacamund and back, 104 miles. The Nanjangod-Erode run 114 miles would be worked from Erode where the Company have got old accommodation. It may be that the ghât pusher engines could be utilized for the short connecting link of 25 miles between Satyamangalam and Mettupalaiyam. Shoranur would serve as the engine-homing station for the two runs, Shoranur to Cannanore 116 miles, and Shoranur to Cochin 73 miles with prospects of extension afterwards in the Quilon direction.

12. As it is not only as an engine-homing station that Podanur will be useful, but also as the locomotive workshop centre for the metre gauge sections, it seems possible to work in with this the reduction of the area of new shops likely to be required at Perambore, the existing locomotive shops of the Madras Railway Company, if the East Coast Railway or part of it should be leased to that Company.

13. Taken as a whole, the scheme seems to me to be an eminently good one, and one which ought to prove equally acceptable to the Company and to Government. From Podanur westward, and throughout the whole area to be served, there is no traffic, nor so far as can be judged is there ever likely to be any traffic, at all approaching to that on parts of the South Indian Railway metre system. By the adoption of this scheme, the Madras Railway Company would secure the trade of the important tract of country, now undoubtedly their proper territory, which the proposed branch from Podanur through Udamalpet, Dharapuram and Palni to Dindigul will serve. They would also retain all the advantages of trading direct with Mysore, advantages which will certainly be snatched from them if the South Indian Railway Company are allowed to extend to Nanjangod. The cost and difficulty of conversion are not serious. I am now making enquiries as to what similar work has cost on former occasions, and have already ascertained that the conversion of the Guntakal-Bellary section, 30 miles in length, was effected during only 30 hours' stoppage of traffic, and that Rs. 700 per mile was all that was spent (apart from buildings and tranship arrangements at Erode) on the conversion of the 167 miles from Negapatam to Erode.

14. Should this policy commend itself to Government and to the Madras Railway Company, it would be wise to convert the Calicut-Podanur section with as little delay as possible after rolling-stock had been provided, so that all might be in working order by the time the extension to Cannanore and the Cochin branch were finished. The conversion of the Mettupalaiyam branch might advantageously be done in time for the opening of the Mettupalaiyam-Coonoor section of the Nilgiri Railway, and in that case the Nilgiri rolling stock could be used on the branch. At Erode, and also at Podanur through the Dindigul branch, the Madras Railway Company's metre system would connect with that of the South Indian Railway Company.

15. Having, in paragraphs 6 to 14, recounted the principal reasons which have led to the proposal to adopt a narrow gauge policy for the Madras Railway extensions and feeders south and west of Podanur, I proceed, following last year's practice, to group the 17 projects, referred to as still alive, in paragraph 5, around the main or trunk systems with which they seem to be naturally connected, or by the agency of which they seem likely to be worked when completed.

Madras Railway Company's Group of Lines.

16. *I. Calicut-Cannanore, 62 miles, Rs.* 73,75,000.—I have increased the length of this extension from the 59 miles given last year, because though there will be some reduction of length due to the recent re-alignment, the line will certainly be extended to Baliapatnam, Cannanore being no place to stop it. Since the inspection recorded in G.O., No. 695, dated 21st September 1897, a great deal of survey has been done and with most satisfactory results, and I quite expect to see a substantial reduction in the estimate, quite apart from any question of gauge. The survey parties are still in the field. In November 1897 the Agent, Madras Railway Company, learnt from his Board that they had raised £100,000 for the Calicut-Cannanore extension in the form of $2\frac{1}{2}$ per cent. debentures at £99. The Government of India telegraphed on the 29th December 1897 that work might proceed on the first 26 miles, and immediately after they allotted one lakh for land and $2\frac{1}{2}$ lakhs for works for expenditure in 1897–98. Very little of this however was spent, as delay unavoidably occurred in making over the land. The Company have been authorised to collect materials and to do certain classes of work which will not result in waste if the metre gauge should be decided on.

17. *II. The Arcot Branch, 4·35 miles.*—With our No. 467 R., dated the 15th July 1897, we sent to the Government of India an estimate for this short branch, amounting to Rs. 2,58,065. In forwarding it for the sanction of the Secretary of State, the Government of India recommended that negociations with the Company should be conducted on the basis of their raising money for it on the terms of capital being converted at the prescribed or average rate of exchange, and of the application of the same rate to the interest thereon. Under this arrangement the estimate was raised to Rs. 2,98,000 by adding a sum equivalent to difference in exchange on expenditure in England between the rates of *1s. 10d.* and current rates. These conditions being accepted by the Company, work was allowed to proceed. At the present moment land is being acquired and some improvements are being carried out in the alignment which will, it is believed, result in economy.

18. *III. The Madras Harbour Branch, about 1 mile, Rs.* 2,00,000.—The maturing of this useful project has been greatly hampered by the necessity for considering the requirements and convenience of the Harbour Trust Board. They, reasonably enough, object very strongly to any interference with their existing arrangements for handling the trade of the port, and indeed to the Madras and South Indian Railways coming to any permanent arrangement until such time as their own schemes for extending the accommodation of the port, whether by docks or by boat basins, shall have been brought to maturity. But certain proposals have been quite lately laid before the Harbour Trust Board and the Madras Railway Company which, if agreed to, will have the effect of allowing at least temporary arrangements to be made which, while securing to Madras the immense convenience of direct access by rail to the harbour face and to the business part of the city, will offer the minimum of interference with the conduct of the landing and shipping business. It remains now to be seen how these proposals will be met by the Harbour Trust Board and by the Railway Company, who so far seem quite willing to meet each other's convenience.

19. *IV. Shoranur-Cochin, 73 miles, latest rough estimate Rs.* 50,00,000.—Reference will be found in paragraph 9 of this note to an offer which this Government are in daily expectation of receiving, from His Highness the Rajah of Cochin, to construct this branch at his own expense and on the metre gauge. Correspondence on the subject has up to date been demi-official or confidential, because there are certain difficulties which have to be considered in the Political Department about the provision of land for nine or ten miles of the line by the neighbouring Native State of Travancore. These difficulties will doubtless disappear in due course, and meanwhile

the Madras Railway Company have a survey party in the field who are working on the same principles as those which, in the case of the Calicut-Cannanore extension, have resulted in such marked economy. It is quite hoped that, on the completion of the estimate, a metre gauge line may be found to be well within the means of His Highness the Rajah of Cochin, whose great desire is to become the owner of a railway from which such good results in the development of his State are expected.

20. *V. Podanur-Dindigul*, 118 *miles*, *perhaps Rs.* 80,00,000, *metre gauge.*—As information on the subject of this proposed line accumulates, it becomes more and more evident that the Madras Railway Company, who already have a grip on the trade of much of the country proposed to be served, should get the building of the line, and not the South Indian Railway Company. And yet it is clear that a metre gauge line will be quite large enough to carry the traffic. In July 1897, the Board of Directors of the South Indian Railway Company made an offer to construct the Madura-Pamban, Tinnevelly-Quilon, and Podanur-Dindigul lines *en bloc*. But for reasons given in our letter No. 533 R., dated the 5th August 1897, this Government advised the Government of India to refuse permission to the inclusion of the last-named line in that Company's programme for the present, but without prejudice to its re-consideration hereafter. This view of the matter was accepted by the Government of India in their letter No. 1746 R.C., dated the 22nd October 1897, in which they agreed with us that this particular project had better be shelved for the present, and concurred with us in the opinion that the metre gauge would suffice for it. Meanwhile, the Madras Railway Company had been keeping open their claim to build it, and had sent in an estimate for a survey.

21. The whole aspect of the question of which Company should be allowed to make this branch line has undergone a change since the Madras Railway Company have expressed their readiness to make metre gauge branches. I have explained in paragraphs 10 and 13 the reasons which have led us to favour the construction of this branch by the Madras Railway Company on the metre gauge; viz., that if built, it will form part of a large scheme of cheap and economically worked feeders to the standard gauge trunk line, connected therewith at Podanur and also at Erode; and moreover that the branch if made at all must be on the cheaper gauge; and that if the Madras Railway Company do not make it they will lose territory by reason of the tract being tapped by their rival the South Indian Railway Company. Evidence obtained from local Civil officials is to the effect that what the produce of the tract needs is a shorter outlet towards Calicut. The ten or twelve towns which are important enough to be tapped are so situated that the length of the line is considerably greater than if it went fairly straight from Podanur to Dindigul. But it is essentially a development line, and ought therefore to touch every village of importance. It will be a slow line, and length is therefore a matter of little moment in comparison with the picking up of traffic.

22. This Government have now put the imprimatur of their approval on the metre gauge scheme detailed in paragraph 10, in its entirety, and have advised the Government of India that, conditionally on the Madras Railway Company's acceptance of the full scheme as one to be gradually worked up to as occasion offers, their right to the Podanur-Dindigul line should be definitely recognized. I consider that the money for this line should be raised on conditions similar to those of the Calicut-Cannanore line, and that we should press for its inclusion in the financial programme for railway construction for the three years' cycle which will open in April 1899. Meanwhile, the Madras Railway Company might be authorised to make a regular survey.

23. *VI. Erode-Nanjangod Railway*, 115 *miles.*—Though in last year's note this scheme was put into the South Indian Railway group, it seems right this year to put it into the Madras Railway group, because it forms one of the sections which would be worked by the Madras Railway Company if the scheme detailed in paragraphs 6 to 14 should be approved. The Madras Railway Company naturally enough protest very strongly against the South Indian Railway Company being allowed to stretch another arm across their trunk, and to snatch traffic from South Mysore which the older Company consider to be theirs by right. But meanwhile the South Indian Railway Company came forward with an offer to survey the route, and, as they had men and appliances ready, their offer was recommended to the Government of India for

acceptance in this Government's letter No. 1054 R., dated the 30th November 1897. Permission was accorded to them to make the survey, and an estimate for Rs. 17,829 was sanctioned in the Government of India's letter No. 78 R.C., dated the 15th January 1898, but on the clear understanding that the making of the survey should not in any way prejudice the question of who is to make and to work the line hereafter, and that the results of the survey should be at the disposal of Government, the revenues of the South Indian Railway being reimbursed for the cost of them if they should hereafter at any time be made over to another Railway Company. The section of the line which lies within Mysore territory would be about 30 miles in length, and it seems likely that the Mysore Government may prefer that this section should be an integral part of their own State Railway system; in this case they would probably be willing to lease the 45 miles from the frontier to Mysore City to the Madras Railway Company if it is arranged that the latter shall construct and work the British portion. My latest information from the Chief Engineer of the South Indian Railway is that the Gajalhatti ghât by which the descent is made from the Mysore plateau is not nearly so formidable as was anticipated.

24. *VII. Mettupalaiyam-Satyamangalam link*, 25 *miles.*—This link is a necessary part of the new metre gauge scheme, to enable the rolling-stock of the Erode-Mysore section to get to Podanur for repairs, and also to shorten by 100 miles the distance to the Nilgiris from Mysore and the Deccan.

25. *VIII. Nilgiri Railway extension*, 11½ *miles*, *Rs.* 19,19,000.—In last year's note this was classed in the South Indian Railway group, as there was a proposal for that Company to work the Nilgiri Railway. But, now that arrangements are being negociated for its being worked by the Madras Railway Company, it must be grouped with that railway's extensions and branches. The Coonoor-Ootacamund extension has been recommended by the Conference of 1897 for construction by a Branch Line Company. With our letter No. 246 Ry., dated the 12th February 1898, this Government forwarded the plans and estimates, amounting to Rs. 19,19,000 inclusive of interest during construction, for the sanction of the Government of India, with a strong recommendation, that the 3 per cent. guarantee of interest for which the Company ask should not be withheld. It would be very convenient if the concession for this extension could be so settled that there need be no necessity for separate capital and revenue accounts to be kept for the old and new sections.

SOUTH INDIAN RAILWAY COMPANY'S GROUP.

26. *IX. Madura-Pamban*, 100 *miles*, *Rs.* 43,00,000.—In the enclosure to the Government of India's letter, No. 8-R.P., dated the 23rd March 1898, we were informed that this project had been allotted a place in the programme agreed to at last year's Railway Conference, as a line considered suitable for construction by a Branch Line Company. In July 1897 we received an offer from the South Indian Railway Company to construct *en bloc* the Madura-Pamban, the Tinnevelly-Quilon, and the Podanur-Dindigul lines; and in addressing the Government of India on the subject of the first of the three, in our No. 530, dated 5th August 1897, we expressed a hope that it might be possible to allot to this line an early place in the programme of railways to be made on the direct financial responsibility of Government; but we said that, failing this, we would desire that it should be made by a Branch Line Company subsidiary to the South Indian Railway Company, and connected therewith through the rebate clauses of the Resolution No. 514-R.C., dated 17th March 1896. In their reply No. 1746-R.C., dated the 22nd October 1897, the Government of India said that, having regard to existing engagements, there was no chance of the lines referred to being allotted an early place in the ordinary railway construction programme; and that unless the South Indian Railway Company should definitely accept some such arrangement as a Branch Line Company it would be out of the question for the Madura-Pamban to be undertaken for many years. They then offered certain terms for the acceptance of the Travancore Durbar, the South Indian Railway Company, and this Government, for the construction and working of the Tinnevelly-Quilon line, and said that it must be clearly understood that the arrangements made for the construction of this line and the Madura-Pamban must stand or fall together, and that they were not prepared to consider any proposals for the construction of the latter which did not contemplate the undertaking of the former almost simultaneously. In reply

we explained that some delay was likely to occur in the settlement of the Tinnevelly-Quilon preliminaries, and that meanwhile we considered that the financing of the Madura-Pamban might go on, and that under all the circumstances we agreed that, with proper precautions, there need be no objection to a Branch Line Company being utilized for its financing. In their reply No. 90 R.C., dated the 17th January 1898, the Government of India said that they would await the views of the South Indian Railway Company on the proposal to finance the Madura-Pamban by the agency of a Branch Line Company: but that they were of opinion that before work is commenced on this line the Company should give an undertaking to construct a railway from Tinnevelly to the neighbourhood of Trivandrum or Quilon or other suitable terminus, either by the northern or southern route as may be decided by the Government of India, whenever called upon to do so, on the terms and conditions imposed in their letter No. 1746 R.C., dated the 22nd October 1897. We replied, in our No. 168 R., dated the 31st January 1898, that we would lay the whole matter before the South Indian Railway Company and the Travancore Durbar, and let the Government of India know the upshot in due course, and that meanwhile this Government very fully concurred in the fairness of taking this opportunity of so coupling up the poorer line with the richer one that the South Indian Railway should find it worth while not to make too high terms for working the former. On the question being referred to the Agent, South Indian Railway, he entered into correspondence with his Board. This correspondence is still in progress, and in their letter to their Agent, No. 204, dated the 11th February 1898, the Board say that they anticipate no difficulty, if the Madura-Pamban is financed by Branch line agency, in so arranging the terms of the agreements that the working Company shall retain the necessary full control over rates and working. In the Agent's letter to his Board No. 576, dated the 9th March 1898, he went carefully into all the bearings of the proposal to let their acceptance of the terms offered for the two lines stand or fall together, and ended by saying that he thought that the derived traffic from the Madura-Pamban and the Tinnevelly-Quilon lines taken together ought to secure his Company against loss on the working of the latter on the terms proposed. The Agent has since received a telegram from his Board accepting the Government of India's conditions.

27. *X. Tinnevelly-Quilon*, 103 *miles*, *Rs.* 1,01,62,000.—As stated in the paragraph about the Madura-Pamban line, the Government of India have insisted on the South Indian Railway Company agreeing to make and work a line from Tinnevelly to some place to be decided on, and by a route to be decided on, in the State of Travancore on certain terms which have been specified, before they can be permitted to undertake the Madura-Pamban line. Meanwhile we are in communication with the Travancore Durbar on the subject of the route which should be adopted, and of the terms for working which have been proposed by the Government of India for their and the South Indian Railway Company's acceptance. This Government is strongly impressed with the superior advantages of the Southern route where this and the northern route are compared as a whole. The South Indian Railway Company too appreciate the very superior advantages of the former from a traffic point of view. It is true that the British portion of the northern route passes through a very much richer district than the British portion of the southern route. But this is a matter of minor interest to the Railway Company who are concerned with the extension as a whole. It is believed by this Government that the estimated cost of the very difficult hill section of the northern route in Travancore territory has been taken at too low a figure. As a fact its survey was never really completed. We have thought it but fair to leave it absolutely to the Travancore Durbar to decide which route to adopt, laying all the facts before them. The decision of the Durbar is now daily expected. The following are the terms which the Government of India have proposed for the acceptance of the Travancore Durbar and the South Indian Railway Company for constructing and working this extension: (*a*) that the South Indian Railway Company should raise the whole of the necessary capital at 2½ per cent. in sterling under the guarantee of the Government of India, the Travancore Durbar underwriting that guarantee to the extent of the cost of the part of the line inside the State; (*b*) that the South Indian Railway Company should construct the line including rolling-stock at cost price, and then work it on completion as part of their own system at the same rate of working expenses as obtains over the whole system including this and all future branches;

(*c*) that the cost of maintenance during the first two years after opening be added to capital; (*d*) that surplus profits be divided between Government and the Durbar in proportion to the mileage in their respective territories. The acceptance or otherwise of these terms by the Durbar and the Company is still the subject of correspondence, but is believed to be very near.

28. *XI. Trichinopoly-Pudukkottai-Thondi*, 86 *miles*, *Rs.* 37,50,000.—Since I noted last year that this scheme was not ripe for sending forward to the Government of India, the South Indian Railway Company and the Rajah of Pudukkottai agreed to share between them the cost of a survey estimated at Rs. 29,369. In our letter to the Government of India, No. 718 R., dated the 23rd September 1897, we asked that permission might be accorded to make the survey. In their reply, dated the 21st October 1897, No. 1741, R.C., the Government of India suggested that we ought to consider the effect on the prospects of this line of the proposed Madura-Pamban and Mutupet-Avadyarkoil line. In our reply No. 1120 R., dated the 10th December 1897, we agreed that, in view of the prospect of the approaching completion of arrangements for the two important lines referred to, it would be better not to press just now for permission to survey the Trichinopoly-Thondi line. But we said that it must be understood that this decision was come to without prejudice to the question of the advisability of, later on, at the cost of the Pudukkottai State, surveying a short branch from Trichinopoly to serve the State, but not to extend beyond its southern or eastern boundaries. Meanwhile, the collection of traffic statistics goes on.

29. *XII. Trichinopoly-Tirukkóyilúr*, 90 *miles*.—This project is not yet ripe for putting forward, or for obtaining permission to survey it. The first official reference to it was in my note on famine railway projects, dated 14th August 1897; and, previously to this, I had collected a certain amount of information about it. It is intended as a substitute for the proposed Salem-Porto Novo line with a branch from Chinna Salem to Tirukkóyilúr, which was surveyed in 1887. The object of the old project was to stretch a railway across the large unprotected space between the Madras and South Indian Railways, comprising parts of Trichinopoly and South Arcot districts, in order that in times of famine access to certain difficult tracts might be made easier. But it seems obvious that the very same object may be attained, with the additional advantage of a short cut of 40 miles between Madras and southern India, by a line from Trichinopoly through Chinna Salem to Tirukkóyilúr. The scheme is not yet ripe to be dealt with.

30. *XIII. Negapatam-Nagore*, 4·67 *miles*, *Rs.* 2,51,000.—In sending forward the South Indian Railway Company's latest estimate for this short suburban extension, with our letter No. 107 R., dated the 20th January 1898, we expressed a hope that permission might be accorded to its being constructed as part of the South Indian Railway. In their reply, dated the 11th February 1898, No. 191 R.C., the Government of India asked for a reliable estimate of the traffic likely to be obtained. We have therefore collected all available information and have sent it to the proper authorities to be verified and, if possible, supplemented. The information asked for is now awaited.

31. *XIV. Amayanáyakkanúr-Kuruvanuth*, 75 *miles*.—The Government of India informed us, in their No. 1449 R.C., dated the 3rd September 1897, that they were not prepared to offer the 3 per cent. guarantee demanded by Messrs. Wilson & Co. On learning of this decision that Firm came forward, in January 1898, with a fresh offer to make the line under the Tramway Act without a guarantee. This Government, in letter No. 180 R., dated the 2nd February 1898, have sent forward the new offer to the Government of India with an expression of support, and have inquired whether the Government of India have any objection to our issuing an order under the Tramway Act. A reply has now been received to the effect that there will be no objection to such an order being issued, and suggesting the 2-ft. gauge. In my opinion the Firm of promoters will be very wise to adopt the 2-ft. gauge instead of the metre gauge for the branch, as, if properly equipped with up to date rolling stock, the smaller gauge will carry all the traffic likely to offer itself.

32. *XV. Mutupet-Avaduiyarkovil*, 45 *miles*.—The Government of India have now informed us, in their letter No. 303 R.C., dated the 5th March 1898, that they are prepared to recommend to the Secretary of State that the District Board of Tanjore should be permitted to make the proposed extension of their Mayavaram-Mutupet

Railway from Mutupet a further distance of 45 miles to Avadyarkoil; such capital as may be necessary over and above the Board's available balances being raised in the form of debentures having a currency of not more than 20 years. The security for the debentures would be the Mayavaram-Mutupet Railway and the receipts of the Special Railway cess. The first nine miles of the proposed extension have already been surveyed and have been estimated as likely to cost Rs. 4¾ lakhs. There will probably be no further difficulty and very little delay in starting upon this important extension. The financial position of the District Board in regard to the proposed policy seems to be perfectly sound.

Southern Mahratta Railway Company's Group.

33. *XVI. Kurnool road to Kurnool, 32 miles, Rs.* 11,50,000.—The latest information which we possess in regard to this project is contained in an enclosure to a letter from the Government of India, No. 1631-R.C., dated the 30th September 1897. This enclosure was a copy of a letter addressed by the Government of India to Colonels J. G. Lindsay and A. J. Filgate, in which, replying to their applications to be allowed to construct it on "branch line terms," these gentlemen were informed that, though the Government of India were prepared to sanction the construction of the branch, they were not disposed to offer a firm guarantee of 3 per cent. for it, but would be prepared to favourably consider an offer for its construction and working under the rebate clauses of the branch line resolution, and to recommend the Secretary of State to sanction it, on suitable terms being arranged by the promoters with the Southern Mahratta Railway Company. Meanwhile, we addressed the Government of India in our No. 556 R. of the 14th August 1897, and, in forwarding traffic statistics which seemed to show that it would probably be commercially successful, we begged that due weight might be given to its importance as a famine work.

34. *XVII. Bezwada-Masulipatam, 50 miles, Rs.* 22,50,000.—I bring this project into the Southern Mahratta group, though last year it was classed in the East Coast Railway group, because this Government is convinced that it ought to be looked on as an extension of the Southern Mahratta Railway, so as to aid the flow of the produce of the Kistna delta towards the dry districts around Bellary. This conviction was emphasised as strongly as possible in our letter to the Government of India, No. 546 R., dated the 9th August 1897. But we have learnt from the enclosures to the Government of India's No. 1640-R.C., dated the 30th September 1897, that an application to be granted a concession for this railway was refused to Colonels Lindsay and Filgate, on the grounds that "this project is not one for the construction of which the Government of India are prepared at present to make any arrangements." I am personally convinced that this Government's duty is to continue to press for the connection of the Bellary famine tracts with the Eastern Kistna delta and its granaries, by means of the extension of the metre gauge system from Bezwada to Masulipatam.

35. *XVIII. Arsikeri-Mangalore.*—The result of certain correspondence on the subject of this project which has been carried on during the past year between the Mysore Government and the Government of India, as communicated to us by the latter, is that it rests now with the Mysore Government to take the next step towards obtaining at a reasonable cost a railway for access to the Western Coast. My own opinion is that if the railway is really wanted, and the Mysore Government seem convinced that it is wanted, they would be wise to make it on the model of the Darjeeling-Himalayan Railway, for the ghât portion; and I see no reason why the same gauge should not be adhered to throughout the entire length of the branch. We learnt from the Government of India's letter, No. 1774 R.C., dated the 27th October 1897, that they definitely refused a recent offer from Mr. W. Lonsdale to make the branch without any guarantee, on the grounds that they had satisfied themselves that such a line, on the metre gauge, would not be financially successful.

East Coast Railway Group.

36. *XIX. Gopálpur-Berhampur Branch.*—The question of whether a branch should be made to Gopálpur has continued throughout the year to form the subject of correspondence. In their letter, No. 1502 R.C., dated the 10th September 1897, the Government of India informed us that they concurred in the opinion expressed by this

Government in letter No. 568 R., dated the 17th August 1897, that, in view of the uncertainty as to the amount of traffic to be dealt with, and of which of the local ports will best serve the interests of Ganjám, no branch to any port in the district should be undertaken at present. They then asked for a further report on these two points. The matter is still under inquiry. But a suggestion has been made that the interests of the district, as apart from local mercantile interests, might perhaps be better served by a light branch railway 50 or 60 miles in length, penetrating back to Goomsoor, rather than by a short branch to Gopálpur or any other port.

37. *XX. Vizianagram-Raipur.*—A survey party, under the orders of the Government of India, is now in the field renewing the investigations carried out many years ago into the engineering and prospects of this most important project.

38. *XXI. Naupada Parlákimedi.*—Early in February an application reached this department through the Board of Revenue from the Rajah of Parlákimedi to make a steam tramway, as a private undertaking, at his own expense, from Naupada station of the East Coast Railway to Parlákimedi, the capital of his estate, a distance of 25 miles. With the application further proposals for extensions were foreshadowed, but not yet brought definitely forward. In our letter No. 259 Ry., dated the 15th February 1898, we addressed the Government of India on the subject, enquiring whether there was any objection on their part to the publication of an order under the Tramway Act to permit of the line being made. In their reply No. 2 R.P., dated the 14th March 1898, the Government of India said that they had no objection, but made certain provisos, which are still the subject of enquiry through the Board of Revenue. The Government of India suggested that the 2-ft gauge should be adopted.

The Light Feeder Famine Railway Group.

39. In reply to instructions contained in the Government of India, Revenue Department, letter No. 18—31—1, dated the 18th September 1896, that we should put forward a limited number of railway projects for the Presidency, arranged in accordance with their famine protective value, this Government in the Revenue Department addressed the Government of India in letter No. 169, dated the 22nd March 1898, putting forward the following list of lines which were decided on only after long and careful discussion: Hospet to Kottur, 35 miles; Kalikeri to Ráyachóti, 32 miles; Morrapur to Dharmapuri, 16 miles; Tiruppatúr to Krishnagiri, 25 miles; Bellary to Rayadrug, 33 miles; and Narsaraopet to Pondugal, 45 miles: total 186 miles of 2-ft. railway likely to cost, perhaps, 50 lakhs. We begged that for the construction of these six short lines we might be given, from the Famine Insurance Fund, the sum of 10 lakhs annually for the next five or six years. It is proposed that they should be worked by the agency of the parent lines to which they would form feeders.

(Signed) Francis J. E. Spring,
Consulting Engineer for Railways.

31st March 1898.

1st May 1898
Collected