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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

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Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
17th November 1874.

No. 289. Read the following letter from Colonel H. DRUMMOND, R.E., Deputy Secretary to the Government of India, Public Works Department, (Railway,) to Colonel G. W. WALKER, R.E., Secretary to the Government of Madras, Public Works Department, (Railway,) dated Fort William, 5th September 1874, No. 2,132 R:—

I AM directed to acknowledge the receipt of your letters, Nos. 458 and 2,030, dated the 24th February and 28th July 1874, respectively, regarding an extension of the Madras Railway branch line from Bellary to the cotton producing districts about Gudduck in the Southern Mahratta country. The Madras Government believing that it has been decided not to construct the proposed Gudduck and Carwar Railway as a Government line, is of opinion that the Madras Railway Company should be called upon at once to prepare and submit surveys and estimates for the extension of the line to Gudduck or Hoobli, and finally the Madras Government ask to be supplied with any surveys made under the orders of the Bombay Government which may be useful in preparing the project.

2. With reference to the latter request, I am directed to forward copies of the letters noted on the margin, together with the estimates and plans, therein enclosed, for the information of the Madras Government.

From Government of Bombay, No. 367, dated 16th March 1874, and enclosures.
Do. do. No. 369, dated 16th March 1874, and enclosures.

3. In reply to the suggestions for a further survey, I am to enclose copy of a Despatch No. 6 Railway, dated the 9th July 1874, from the Secretary of State to the Government of Bombay, from which it will be seen that the Gudduck and Carwar Railway project is not, as supposed by the Madras Government, definitively abandoned but only temporarily postponed.

4. So many projects are at present in hand that it is certain that during the coming season no new surveys in the Southern Mahratta country will be undertaken, and that no work of construction upon the surveys already completed in that province can be commenced. No expectation should be held out to the Madras Railway Company that their assistance will be required either for making surveys or for extending the railways already authorized. The proposals of the Company have already been answered to this effect by direction of the Secretary of State as appears from the enclosures to your letter under reply.

From the Secretary to the Government of Bombay, to the Secretary to the Government of India, dated 16th March 1874, No. 367.

WITH reference to your letter No. 211 S. R., dated 9th February 1874, I have the honor to forward, for the consideration of the Government of India.

Report, accompanied by plans and estimates, on a project for a railway on the metre gauge from Gudduck to Bellary:

Report on a trial line from Hoobli to Hoodjee near Sholapore on the Great Indian Peninsula Railway;

Report on certain improvements that have been effected on the ghaut section of the Carwar and Gudduck proposed metre gauge railway.

2. A note by the Acting Consulting Engineer accompanies the papers, and the result of the investigations is briefly as follows :—

Two lines from Gudduck to Bellary have been examined ; one by Copal and Hospett, the distance being 91¼ miles, and the other, Dumal and Hospett, the distance being 101 miles.

The probable cost of the former according to Mr. Shaw's estimate, as modified by the Acting Consulting Engineer, is 57 lakhs, or Rupees 62,000 per mile, and of the latter, 68 lakhs, or Rupees 66,000 per mile, including rolling stock (at Rupees 7,000 per mile) cost of surveys and interest on Capital during construction estimated to occupy two years.

3. If the estimate for the more direct line (*i. e.*, that by Copal) be added to the estimate of the Committee of the line from Carwar to Gudduck 110 lakhs, the cost of the entire line from Carwar to Bellary will work out to about Rupees 72,000 per mile, including all charges, the distance being 233 miles, and the total probable cost 167 lakhs, which is 7 lakhs more than the Carwar Committee assumed in the 62nd paragraph of their report.

4. The trial line from Hoobli to Hoodjee has not been estimated in detail, but from the nature of the country and after careful examination of difficult river crossings, Mr. Shaw puts down the cost at about Rupees 10,000 a mile more than the line from Gudduck to Bellary.

5. The Acting Consulting Engineer accepting this estimate, but making allowance for possible reduction in the length of the line from 196 to 180 miles, gives the probable cost at 128 lakhs, or at the rate of Rupees 71,000 a mile, including all charges as before.

6. The seasons operations have resulted in an improvement of the ghaut section on the Carwar-Gudduck line as regards curves and gradients, which will reduce the cost of working ; but the estimate, though somewhat reduced, has not been materially affected, and may be taken at the former amount.

7. If the Secretary of State's decision, as conveyed in his despatch No. 10, dated 6th November 1873, regarding the Carwar-Bellary Railway, be considered as finally disposing of the subject, the present reports and estimates might, so far as that railway is concerned, be recorded without further notice ; but His Excellency in Council, I am directed to say, thinks that a further examination of the subject will show that there is reason to justify a reconsideration of that decision.

8. Before proceeding to state his views on this point, it will be well to endeavour to clear the question of complication in respect to the suggested line from Hoobli to Hoodjee on the Great Indian Peninsula Railway.

9. This line is roughly estimated to cost 128 lakhs, and is mile for mile nearly as expensive as the Carwar-Bellary line.

10. The distance from Hoobli to Bombay, *viâ* Hoodjee, is about 500 miles. The distance from Hoobli to Carwar is 110 miles, and from Hoobli to Madras is 432 miles It appears, therefore, that the Dharwar cotton fields would be more directly served by a connection with the port of Carwar, or even by being connected with the railway system of Southern India at Bellary than by a connection with the Great Indian Peninsula Railway at Sholapore, to which arrangement there are also the objections noted by the Government of India in paragraph 6 of their letter, No. 1,062 S. R., dated 3rd August 1872, which runs as follows :—

> "A leading consideration in the alignment of Indian railways should be, and has been, their value as supports to the military position, and in this view it is not desirable to throw too much on one line of railway. The Great Indian Peninsula Railway, besides its own large traffic, will shortly be fed by the Nizam's Railway and the line from Khundwa to Indor, and it will possibly receive accretions of traffic from railways in the Warda Valley and Chattisgarh. The system of communication, wholly dependent on the working of the Great Indian Peninsula Railway, will thus soon be unusually large without the addition of fresh feeders from districts whose produce could be received as economically at some other port than Bombay."

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11. A line from Hoobli to Carwar, or even from Hoobli to Bellary, would also seem preferable to a line from Hoobli to near Sholapore, as forming part of a distinct system of railway communication having its terminus on the western coast at an efficient port in addition to Bombay. Such a system in fact is as likely at no distant period to be required, and to be carried out in this part of the continent even if it be now postponed.

12. For these general reasons, apart from minute calculations of tariffs, or comparative difficulties of construction, or other such considerations, His Excellency in Council is disposed now to confine his attention to the projected line between Carwar and Bellary.

13. While the Government of Bombay have advocated the prosecution of the entire line on the ground set forth in my letter, No. 179, dated 5th February 1873, which submitted the Carwar Committee's report, the mercantile community of Madras have urged the construction on the standard gauge of a line from Bellary to Gudduck only, and the case as regards this proposal is clearly put by the Madras Government in their Resolution, No. 3,066, dated 20th December 1873, as follows :—

> "That the time has come for determination of the question whether it is to be undertaken irrespectively of the Carwar Railway, in continuation of the Madras Railway and on the same gauge, or whether, as stated in paragraph 3 of letter of the Bombay Government to the Government of India of 9th September 1871, it is to be looked upon merely as one of a system of narrow gauge feeders to the Carwar Railway, to be constructed or not according as that main outlet to the sea is brought into existence or otherwise."

14. Before therefore proceeding to make such observations as suggest themselves on the Secretary of State's reasons for rejecting the entire project from Carwar to Gudduck, I am directed to offer the following remarks on the Gudduck and Bellary section taken by himself.

15. This section has found its chief advocate in Mr. Strange, whose report was received just before the Carwar Committee closed their proceedings, and was briefly noticed by them in their postscript.

16. It was then considered that the views of Mr. Strange and of the Madras community would be met by the proposal that was made to construct the entire line from Carwar to Bellary, but, if only that section which lies between Gudduck and Bellary is to come under consideration an examination of Mr. Strange's figures and data seem requisite.

17. Mr. Strange in his memorandum, dated September 1872, has arrived at two conclusions :—

1*st*.—That the proposed extension would be a financial success, and would return a dividend of 6 per cent. per annum.

2*nd*.—That the interests of commerce generally, and especially those of the Southern Mahratta country, would be better served by such a railway than any other.

18 A narrow gauge line would, it is estimated, cost Rupees 57,00,000, and a broad gauge line Rupees 68,00,000.

19. The commodities of traffic enumerated by Mr. Strange may be taken as correct, but his estimate of quantities requires some modification.

20. The total amount of cotton produced in the districts around Gudduck certainly does not average more than 35,000 tons annually ; of this about 30,000 tons under existing circumstances finds its way to the West Coast, chiefly to the ports of Koompta and Carwar, and it is not likely that more than one-third of this amount would be diverted by an extension of 90 miles of railway from Bellary. The cotton from the neighbourhood of Bunkapoor in the South-West would continue to travel down by the ghaut roads to Koompta, and that from the country in the direction of Hoobli would travel as now either, *via* Belgaum, to Vingoorla or to Carwar. Considering that the cotton from Dumal, which is within 80 miles of Bellary and 160 miles from Koompta, now finds its way to the West Coast by carts, and the great inducement necessary to divert traffic, from natural and old established routes, the estimate of 15,000 tons for the eastward cotton traffic appears as high as it can with prudence be taken. Of this 15,000 tons about one-third would have a haulage over the extension about 45 miles, and the remaining two-thirds 90 miles, giving a total ton mileage of 1,125,000.

21. Sugar from Hospett, 45 miles from Bellary, and the sugar producing country is estimated at 10,000 tons, this would give a ton mileage of 4,50,000.

22. Miscellaneous goods, through and local, were estimated in the Committee's Report on the Carwar and Gudduck project for a line 144 miles long at 20,000 tons, 13,000 tons may be taken for the Bellary extension 90 miles in length, the average mileage being 35;* this gives 455,000 ton miles.

23. The Coaching traffic, including miscellaneous receipts, may be taken, as estimated by Mr. Strange, at a total of Rupees 2,00,000. The total traffic would therefore be :—

Cotton full pressed ton miles	259,554 at 14 pies	=Rs.	1,40,629
Do. half pressed and docras ...	865,446 at 27 pies		
Sugar	450,000 at 1 anna	= ,,	28,125
Miscellaneous	455,000 at 1 anna	= ,,	28,437
Total,..	2030,000	,,	1,97,191
	Coaching, etc.	,,	2,00,000
	Total receipts	,,	3,97,191
Deduct—			
	Working expenses at 50 per cent. ...	,,	1,98,595
	Net Revenue .:		1,98,596

24. This gives a return of 3·48 per cent. on the Capital cost of a narrow gauge line, and 2·9 per cent. on the cost of a broad gauge line.

25. From this it appears that with the high rate for the carriage of cotton averaging about 2 annas a ton mile, and the low rate of 50 per cent. for working expenses, the proposed extension would hardly pay 3½ per cent. on the Capital expenditure for a narrow gauge line.

26. If the rate of 1 anna per ton mile adopted by Mr. Strange be applied, the results would be :—

	Rs.
Goods traffic	1,26,874
Coaching	2,00,000
Total...	3,26,874
Expenses...	1,63,437
Net Balance...	1,63,437

27. This would give a dividend of 2·87 and 2·4 per cent. for the narrow and broad gauge respectively.

28. There are one or two points in Mr. Strange's estimate of traffic which it may be as well to notice.

29. By an extension of 90 miles from Bellary he expects to attract to Madras about ⅞ths of the cotton of the Southern Mahratta country now finding its way to the West Coast. To show the improbability of this, it is only necessary to call attention to the small quantity of cotton now finding its way to Madras from Bellary; had the Madras market the advantages claimed by Mr. Strange, it is certain that even now a considerable portion of the 35,000 tons would find its way there.

30. Having claimed this comparatively large cotton traffic, Mr. Strange assumes that it will travel over the entire length of his line. It can be scarcely necessary to point out that it is too favorable an assumption.

31. All the traffic (including local) has been treated in a similar way, not even excepting the sugar from Hospett, which is situated almost exactly half way between Bellary and Gudduck. This of itself appears sufficient to invalidate his estimate.

* The average mileage of all goods, including through traffic on the Great Indian Peninsula Railway, is one-sixth of the total length of the line, and on the Bombay, Baroda, and Central India Railway one-fourth.

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32. It is understood that the freights from Madras and Bombay to Liverpool are from 10*s.* to 15*s.* in favor of Bombay, and that the freight from Carwar averages about 5*s.* more than the freight from Bombay, and 5*s.* less than that from Madras.

33. For eight months in the year insurance is ¼ per cent. cheaper from the West Coast than from the Coromandel Coast

34. It may thus be observed that the existing circumstances seem clearly to point out how the commerce of the Southern Mahratta country would be best served.

35. Bellary, which is in direct communication with Madras, is on the verge of the cotton growing districts of Dharwar, and within 80 miles of their centre, yet not more than a small fraction, estimated by the Consulting Engineer at 1/15th of the cotton produced there, finds its way to Bellary; the remainder reaching the West Coast by various routes. It thus appears that only cotton produced in close proximity to the railway line is likely to be diverted towards Madras out of its natural course.

36. That cotton tends towards Bombay in preference to Madras is shown by the fact that there is a regular supply to the former place from localities on the Madras side of Raichore which is, allowing for ghauts 474 miles from Bombay, and only 250½ miles from Madras, and this with much higher mileage rates for the longer distance.

37. Take Adoni, which is 307½ miles from Madras and 517 from Bombay, for instance, the Great Indian Peninsula Railway returns show the following figures :—

Cotton from Adoni to Bombay :—	Maunds.
1st half 1872	15,809
2nd ,, ,, ...	7,303
1st half 1873	1,322
2nd ,, ,, ...	1,751

The quantity is not large, but the supply is continuous.

38. The following figures show the approximate cost of transporting a ton of cotton from Gudduck to Liverpool, *via* Suez Canal, by each of the routes, assuming that it is conveyed to the coast in a half pressed state :—

Via Bellary and Madras.	Rs.
Gudduck to Bellary at 24 pies per ton mile	11·25
Bellary to Madras existing rate	25·55
Shipping, etc.	2·3
Freight	35·1
Insurance	5·8
Total...	80·0

Via Carwar.	
Gudduck to Carwar at 24 pies per ton mile...	18·0
Shipping, etc.	3·0
Freight	32·8
Insurance	4·8
Total...	*58·6

Via Carwar and Bombay.	
Gudduck to Carwar	18·0
Steamer to Bombay including insurance	17·0
Shipping, etc.	4·0
Freight	29·0
Insurance	4·8
Total...	72·8

* This is about the cost to the Dharwar cotton dealer of conveying one ton of cotton to Bombay under existing circumstances.

39. It seems, therefore, probable that the Gudduck extension of the Madras Railway if constructed would pay not 6 per cent. on the Capital outlay, but only at the very outside rather less than 3 per cent., while having regard to the westward flow of traffic, the existence of which is established on sufficient evidence, it is probable that the same line on the narrow gauge in connection with a railway to the coast would earn at least as much as the western part of the same line, or according to the Carwar Committee's return from 3·63 to 4·09 per cent.

40. But though in His Excellency in Council's opinion it is abundantly clear that a railway from Bellary to Gudduck would not serve this part of the country so well or earn so large revenue as a railway from Bellary or even from Gudduck to Carwar would do, yet I am to add His Excellency in Council would rather see such a line constructed than none at all, feeling sure that sooner or later it would be found necessary to continue it to Carwar, and to carry out the original proposal, and in this view any such railway, His Excellency thinks, should be on the narrow gauge.

41. I am now to refer to the Secretary of State's Despatch No. 161, of 6th November 1873. It is therein stated that "the Committee hold out very faint hopes" that the line they recommend would earn a net revenue amounting to the interest of the Capital proposed to be invested, their estimate being that such net revenue would amount to 3·63 or 4·09 per cent. according to the rate at which the working expenses are calculated; but I am to observe that the Committee's report was most carefully and cautiously framed, and, as was stated in my letter, No. 179, dated 5th February 1873, the result may be fairly considered as a minimum.

42. The estimates of traffic were largely based on accurate official returns, and perhaps in the case of no railway yet constructed or projected in India has so much and such reliable data been availed of for arriving at a reasonable estimate of expected traffic. In a recent despatch from the Government of India to the Secretary of State, the immediate construction of an extension of the Warda Valley State Railway has been unhesitatingly advocated on a conjectural estimate that it would pay 4 per cent. on its cost.

43. The estimates of Capital outlay were full and safe, and as has been remarked in the course of the correspondence, were considerably more than the Consulting Engineer for State Railways, Mr. Molesworth, thought would suffice, while no allowance has been made for the expansion of traffic which is the natural and inevitable result of every improvement in means of communication.

44. It is stated that the aggregate of entire traffic is made up of items "in respect to which scarcely any positive data exist," but when this remark was written it must surely have escaped observation that in regard to the principal items actual Customs' or other reliable returns formed the basis of the calculations.

45. It is quite true no doubt that the rapidly recovering ability of the United States to meet the English demands may affect the exports of Dharwar cotton to England, but there is a large export trade in this staple to foreign ports, and when Indian cotton was cheaper in the English market than it is now, or is ever likely to become again, the growth in Dharwar was not materially less than it is now. It seems also probable that Dharwar cotton shipped direct to ports in the Mediterranean, Adriatic, or Black Seas, will always be able to compete with American cotton, which reaches those ports, *via* Liverpool or Havre, and that the construction of this railway will in reality save the trade in this staple to the Southern Mahratta country. It will also help to keep up the supply for local mills in the city of Bombay, and in other parts of this Presidency.

46. It has also been advanced with great force that the competition of American cotton in the Europe markets is not a good reason for relaxing efforts in this country, but on the contrary should rather stimulate efforts for facilitating and cheapening transport so that the Indian produce may be in a better position to compete than it now is.

47. It is only reasonable and fair also in considering this railway to give it some credit for the effect it could not fail to have on the country it would traverse, even if it be held that its direct results as a speculation would be doubtful. The indirect advantages which would accrue to Government if the railway were made, were adverted to by the Committee in their 72nd paragraph, and embraced an increased land assessment of about 1½ lakh of Rupees per annum, increased forest revenue, increased consumption of salt, and diminution of smuggling. These should not be lost sight

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of, and if not sufficient to return a wavering scale, it should be considered that the case has been rendered as doubtful as the Committees' figures make it, only by adopting a high estimate of construction, a cautious and safe estimate of gross traffic, and a very high rate of working expenses. It may also be urged in favor of the line, apart from its prospects as a mere speculation, that in the case of a famine in the Southern Mahratta country, it would be very difficult, if not impossible, without a communication of this kind, to relieve the inhabitants of that part of India; and in the event of a stoppage of traffic or a breakdown of the Bhore Ghaut, it would be an immense advantage to have an outlet for the trade of Southern India. The imprudence of concentrating all the trade on a single line, with a weak part like the ghaut incline, has already been noticed and adverted to by the Government of India. Bearing in mind the probability that the Great Indian Peninsula Railway may not ultimately be able to take all the traffic between the Southern and South-Eastern parts of Hindoostan with the Western Coast, it would be a great advantage to have an alternative route to afford the required relief.

48. It is *possible* no doubt that the Carwar Railway if constructed might prove a disappointment, but at least it may be remarked that if the cautiously and guardedly framed estimates of the Committee are not accepted as giving a fair and reasonable expectation of safety, it is difficult to understand what assurances could be obtained that would justify the State in authorizing the prosecution of any similar undertaking. Certainly, His Excellency in Council believes, that in no case of any State or other Railway undertaken or projected in India have calculations been made in such detail and so reliable, to show that the work might be undertaken with a fair prospect of financial success.

From Colonel M. K. KENNEDY, R.E., Secretary to the Government of Bombay, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated 16th March 1874, No. 369.

In my letter of this day's date, the Government of India have been addressed on the subject of a railway from Gudduck to Bellary, also on the general question of a line from Carwar to Bellary, and I am now directed, with reference to the Government of India's Despatch to the Secretary of State, No. 87 R, dated 9th April 1873, and to paragraph 5 of the Secretary of State's reply, Despatch No 161, dated 6th November 1873, to forward a further communication from Messrs. Nicol and Company on the question of the concession to them of this railway under certain terms.

2. His Excellency in Council, I am directed to say, would prefer to see the railway undertaken directly by the State, if it could be so arranged; but if it be still thought that the financial prospects held out are not sufficiently good to justify this course, he would desire in submitting this further communication to offer a few remarks on the papers above referred to in respect to the proposal put forward by Messrs. Nicol and Company, and to the security offered by them, which is held by the Government of India and the Secretary of State to be insufficient.

3. In the 4th and 5th paragraphs of the Government of India's Despatch the force of the arguments in favor of Messrs. Nicol and Company's proposal, is to some extent admitted, and it seems from the purport of the Government of India's Despatch, and from the Secretary of State's reply, that, reserving certain points of detail for satisfactory adjustment, and provided that adequate security were forthcoming, the arrangement suggested would not be unfavorably regarded in the event of its being decided that the line should not be carried out directly by the Secretary of State.

4. It will be convenient, first, to consider the subject of the security offered.

5. It is urged by Messrs. Nicol and Company that the traffic which is already existent would, on the railway, develop more quickly than the Government of India have calculated, but adopting the figures of the Government of India in this respect, they submit that there has been an error in the calculation of the Government of India, and that the amount which would stand to the credit of the Guarantee Fund at the commencement of the 4th year would be £55,000 and not £28,000 as shown by the Government of India. An error in the Government of India's

calculations has arisen from their having omitted to allow for the accumulation of interest on the Guarantee Fund, but Messrs. Nicol and Company's calculations are complicated by the consideration of the error made in the original report regarding the pay of the Locomotive Superintendent; this error need not be noticed, and on the basis adopted by the Government of India, the calculation would stand as follows :—

1st year's working.

	£
Net Revenue 40 per cent. on £25,000	10,000
Interest on Guarantee Fund £100,000	4,000
Contribution from Guarantee Fund	30,000
Interest on Capital expended at 4 per cent ..	44,000

2nd year's working.

	£
Net Revenue 40 per cent. on £50,000	20,000
Interest on Guarantee Fund £70,000	2,800
Contribution from Guarantee Fund	21,200
Interest on Capital at 4 per cent...	44,000

3rd year's working.

	£
Net Revenue 40 per cent. on £75,000	30,000
Interest on Guarantee Fund £48,800	1,952
Contribution from Guarantee Fund	12,048
Interest on Capital at 4 per cent...	44,000

4th and subsequent years.

Net Revenue 40 per cent. on £100,000 40,000

leaving £4,000 to be made up annually from the Guarantee Fund, now reduced to £36,752, which is the present value of an annuity of £4,000 for 12 years.

6. If this calculation be admitted, and if the lower rate of net revenue estimated by the Carwar Committee be adopted, the Guarantee Fund would be expended in 15 years after date of opening in the improbable event of there being no expansion of traffic after the 4th year, or if the working expenses should continue at the high rate assumed, viz., 60 per cent. on the gross earnings.

7. But Messrs. Nicol and Company's proposal was that the first year's interest after the opening of the line should be added to Capital, and if this be agreed to, the results would be as follow :—

1st year.

The net revenue of the first year is £10,000 as before, and the interest on the Guarantee Fund amounts to £4,000 ; then to make up the 4 per cent. interest on Capital, £30,000 has to be provided, and the total Capital expenditure after the first year's working becomes £1,130,000, and 4 per cent. on this amounts to £45,200.

2nd year.

	£
Net Revenue as before	20,000
Interest on Guarantee Fund £100,000	4,000
Contribution from Guarantee Fund	21,200
	45,200

3rd year.

	£
Net Revenue as before	30,000
Interest on Guarantee Fund £78,800	3,152
Contribution from Guarantee Fund	12,048
	45,200

4th and subsequent years.

Net Revenue as before £40,000, leaving £5,200 to be made up annually from the Guarantee Fund, now reduced to £66,752, which is the present value of an annuity of £5,200 for 18 years. Thus the fund would not be exhausted until 21 years after opening the line to traffic.

8. Even according to these figures, the guarantee seems to be reasonably good; but it is taking an unfavorable view of the prospects of the line to calculate that the traffic over it will develope as slowly as the Government of India assume, if it be considered that the main items of produce on which the calculations have been based are not conjectural, but are already represented in the slow, difficult, and costly traffic of the ordinary bullock cart of the country.

9. If, instead of assuming that the moderate amount of traffic calculated on by the Committee will not be attained till the fourth year, it be calculated that the full result will be reached on the third year, or if, retaining the term of four years, the traffic of the first be estimated at a higher rate than one-fourth of the whole, the above result would be very greatly modified in favor of the proposal.

10. The Government of India are under a misapprehension in assuming that Messrs. Nicol and Co. have required that they should have a contract for the line on the Committee's estimate; such a stipulation appears nowhere in this correspondence ; what was proposed was, that Messrs. Nicol and Co. should arrange for the construction of the railway, Government advancing whatever funds might be required for that purpose, and that the work should be constructed under a Government supervision similar to that which is exercised on the guaranteed lines.

11. There was, therefore, no question of risking £100,000 to secure a profit of at least £200,000 on the contract, and this Government, I am desired to say, would never have favored such an arrangement.

12. There being then no question of a contract, a little consideration will show that the arrangement proposed would be the exact converse of the guaranteed system. In the latter all the efforts of Government are required to prevent extravagant outlay of Capital, on which interest is guaranteed by the State ; but on Messrs. Nicol and Co.'s plan, as the railway and works, when completed, would be the security of Government for the Capital advanced after the exhaustion of the guarantee fund, it is evident that the efforts of Government would be required more to ensure a suffisient outlay and the execution of sound and durable works than to restrict expenditure on needlessly costly ones.

13. The endeavours of the grantees would be to expend as little Capital as possible, so as to obtain the largest practicable dividend and to save the guarantee fund, and efforts in that direction might easily be pushed too far.

14. In this respect as leading to economy of construction, the advantages of Messrs. Nicol and Co.'s plan over that of the ordinary guaranteed system are obvious and substantial.

15. It may now be remarked that the main reason which apparently induced the Government of India to view Messrs. Nicol and Co.'s proposals with some apprehension is the probability which they gather from the reports and calculations of their Consulting Engineer, Mr. Molesworth, that the line might be constructed for £200,000 under the Committee's estimate, and this, I to am submit, the question of any supposed contract with Messrs. Nicol and Co. being disposed of, is not only a strong argument in favor of the proposal but a still stronger one in favor of the execution of the line by Government itself.

16. Assuming the Capital outlay to be £820,000, the estimated traffic earnings would be nearly 4·9 per cent., and it is hardly fair to the project to reckon the Capital needed at the higher figure when the Government's own risk is concerned, and to reject Messrs. Nicol and Co.'s plan on the assumption that they will be able to make large contract profits by adopting the lower sum in the case of their proposal.

17. As regards the Government of India's paragraphs 11 and 12, it is understood that the principle of their plan being accepted, Messrs. Nicol and Co. are prepared to accept an arrangement which shall place the works as much under the immediate control of the Government Officers as the ordinary Guaranteed Railways are; *i. e.*, that all estimates, and indents for stores and all actual execution of works should be directly subject to the orders and approval of Government; except on this arrangement, His Excellency in Council would not support the proposition.

18. So also as regards paragraph 13, the same arrangement that is in force with the Guaranteed Companies is contemplated; *i. e.*, a maximum scale of fares within which the grantees would be permitted to exercise discretion; as, however, it is expressly stated that the particular line under discussion must be regarded entirely in a commercial light, it is not understood what circumstances would be likely to arise which would render it advisable to reduce fares and freights to an extent that would bar a fair profit: except in the case of a famine, or under such circumstances as would require the Government, for the general benefit, to carry some item or items of traffic at prices that would involve a loss; but in this case it would be the same thing whether such loss were incurred on the working of a State Railway, or whether the difference between the normal and reduced rates were paid by the Government to the grantees, in the same way that the difference between the tariff rate and the rate at which grain is now being carried to the famine districts of Bengal, is made good to the Guaranteed Companies by Government.

19. The proposal is, as is observed in the Government of India's 14th paragraph, a novel one, but His Excellency in Council does not, I am desired to say, with the experience that has been obtained in working the guaranteed system, anticipate that any great or insuperable difficulty would be met with in reducing an agreement embodying it to a workable form.

From Messrs. W. NICOL AND Co., Bombay, to the Secretary to the Government of Bombay, Public Works Department, dated 6th February 1874.

By the recent publication of the despatches of the Government of India, Nos. 86 and 87 R., of the 9th April 1873, to the Secretary of State, and His Grace's reply, No. 161, dated 6th November 1873, we have learned that the decision of His Grace is adverse to the immediate construction of the proposed Carwar Railway, either as a State line, or on the basis of the proposal made to Government in our letter of 21st September 1872, and others of later date.

2. We regret to observe that on the very full exposition of our proposal contained in despatch No. 87, and on which the Secretary of State's conclusions are grounded, objections have been raised, which, with a true conception of the extent and nature of our offer, could hardly have been put forward.

3. We trust that, in these circumstances, we may be permitted to lay before you, for the purpose of transmission to the Government of India and the Secretary of State, a further supplemental statement which, we think, must conclusively dispose off all such objections, and, we hope, lead to a reconsideration of the matter.

4. We may observe, in preface, that our only object is to have a line of railway made, which, in common with the whole local native trading community, we regard as of the most vital consequence to the commercial interests of the Southern Mahratta country. It is therefore quite immaterial to us whether it is constructed as a State line, or on the terms of our proposal which proposal we were mainly induced to put forward in the belief that it was the likeliest way to awaken the natives of India to the advantages of railway investments, and enlist their enterprise in works of this character.

5. While the Poona Committee has given £1,100,000 as an estimate of the cost of the line, we still incline to the belief (and are strengthened in this by the present declining price of iron)

Proceedings of the Madras Government, Public Works Department,
17th November 1874.

that Mr. Molesworth's estimate of £820,000 is nearer the mark, but we never contemplated making a profit of the difference. The offer was to construct the line by means of contractors, or otherwise, on the most economical terms possible, and we were to derive no advantage from the outlay in building the line.

6. The scheme, if adopted, would place Government in the position of mortgagees of the line, and we might reasonbly have expected, that in a work from which the State would unquestionably derive so many indirect advantages, they might have been content to accept the position of ordinary debenture holders in English railways. Notwithstanding, we expressed our willingness to submit to any reasonable conditions as to supervision and control.

7. In considering the probable returns of the line, it is necessary to remark on a clerical error in the report of the Poona Committee which appears to have escaped the attention of the Government of India, and the Secretary of State. At page 91 of the report, the salary of a Locomotive Superintendent at Rupees 600 per mensem is extended Rupees 6·0 × 12 = Rupees 72,000 instead of Rupees 7,200. The difference is Rupees 64,800 against the probable revenue, which represents ·58 per cent. on £1,100,000. The majority of the Poona Committee based their estimates as to working expenses on Lieutenant Sergeaunt's figures, which show 51·27 per cent. as working expenses without correction of the error above referred to.

8. Also in paragraph 8 of despatch No. 87 R. it is urged that only £28,000 of the proposed guarantee fund of £100,000 would remain available at the beginning of the fourth year of the existence of the railway.

It was part of our proposal that interest for one year after the line was open for traffic should be added to Capital, but putting this aside, and admitting the assumption made by the Government of India that the average gross revenue of the first three years will only be £50,000 then the following statement, we think, correctly shows the position of the guarantee fund, rather than that adopted by the Government of India.

First year.		Second year.		Third year.	
Interest on Capital 4 per cent. on £1,100,000.	£44,000	Interest on Capital	£44,000	Interest on Capital	44,000
Deduct.		*Deduct.*		*Deduct.*	
Interest at 4 per cent. on £100,000 Government Paper	£ 4,000	Interest at 4 per cent. on £76,500 Government Paper	£ 3,060	Interest at 4 per cent. on £62,000 Government Paper	£ 2,480
40 per cent. of £25,000, being gross revenue	£10,000	40 per cent. of £50,000 being gross revenue	£20,000	40 per cent. of £75,000 being gross revenue	£30,000
Difference in Locomotive Superintendent's salary	£ 6,480	Difference in Locomotive Superintendent's salary	£ 6,480	Difference in Locomotive Superintendent's salary	£ 6,480
	£20,480		£29,540		£38,960
Amount to be made good from guarantee funds	£23,520		£14,460		£ 5,040

The amount standing at credit of the guarantee fund, with which to commence the fourth year, would thus be £55,000, or, if our request that the first year's interest be added to capital be complied with, the original sum of £100,000 would be nearly intact.

We submit, however, that, seeing a trade already exists, the assumption that the gross revenue will only be £25,000 in the first year is unduly adverse.

9. A further objection is, that the aims of the State, and of a company, in working a railway, are different. The State may subordinate the railway to the general welfare and work without profit. A company works solely for profit. We would observe, however, in reply to this, that Government may, by simply recouping the proposed company its probable profit, reduce tariffs as it pleases. Government would, in so acting, expend public money in the public service, although in a somewhat different way from that adopted were the tariff of a State line to be reduced to a non-paying point. An analogous case exists at present on the East Indian Railway, where the rates for carrying grain have been reduced. By having to find money to supplement any falling off in guaranteed dividend, Government virtually spends public funds for the public welfare.

10. The Secretary of State has advanced, as an argument in favor of delaying the scheme, the precarious condition of the cotton trade of the country attendant on the prospect of increased supplies from the United States. With the greatest deference to His Grace's views, we would observe, that the existence of a rival trade ought not to be adopted as an argument for denying the means of mitigating the consequences of a keen competition.

We do not share the fears expressed by the Secretary of State, as we may remind His Grace, that prior to the American war, when cotton was as cheap as there is any reasonable expectation of its being even in a remote future, it formed, as it must always do, one of the rotation crops of the district. Even when the average price was Rupees 100 per candy the growth was not materially less than it is at the present time. Indeed the growth is restricted to what the limited bullock hackery power of the country can convey to the coast, and must remain so until increased facilities of conveyance are provided.

11. Besides cotton, we ourselves look for an important trade in wheat to Europe springing up. Previous to the opening of the Suez Canal, it was found impossible to convey wheat to Europe by the long sea passage, without its being rendered unmerchantable by weevil. But now a growing trade has arisen which we see no reason to doubt would, were it aided by proper facilities, extend to the rich tracts of the Southern Mahratta country.

12. We may further refer to the present position of matters in Bengal as affording convincing reasons for improving communications. These reasons apply with peculiar force in the case of a country like the Southern Mahratta districts, which are in great measure isolated for six months of the year. We would with deference submit, that these and other state reasons ought to carry some weight in the consideration of this matter, but since the Secretary of State has based his present decision solely on the anticipated commercial results, we would urge that some greater weight might have been given to the expression of native mercantile opinion, as shown in petitions addressed to the Secretary of State, more especially when supported, as it has been, by the offer of a substantial pecuniary guarantee.

Having endeavoured to the best of our ability to remove the misconceptions with which the Government have viewed our proposal, we earnestly request that the Government of India and the Secretary of State will so far condescend as to take the matter again into consideration before finally negativing a scheme which we feel has special claims to their attention.

From the Secretary of State for India, to His Excellency the Honorable the Governor in Council, Bombay, dated India Office, London, 9th July 1874, No. 6 R.

I HAVE had before me in Council the petition forwarded with your Excellency's letter of the 21st May last, No. 9, from the principal native cotton merchants trading with the Southern Mahratta country which prays that sanction may be given to the speedy construction of the Carwar-Gudduck Railway.

2. I should wish the petitioners to be informed that the railway project in question is by no means to be regarded as definitively abandoned, although its temporary suspension is necessitated both by financial consideration and by the equally, and even more pressing claims of other schemes of a similar character.

No. 289A. Docket from the Government of India, Public Works Department, (Railway,) dated Fort William, 12th September 1874, No. 2,197 R.

COPY of the following forwarded to the Government of Madras, in the Public Works Department (Railway), for information, in continuation of Public Works Department, No. 2,132 R, dated 5th September 1874.

By Order,

(Signed) C. H. LUARD, Major, R.E.,
Offg. Under Secretary.

Proceedings of the Madras Government, Public Works Department,
17th November 1874.

From the Secretary of State for India, to His Excellency the Honorable the Governor in Council, Bombay, dated 30th July 1874, No. 8 R.

I HAVE received your Excellency's letter of the 18th June last, No. 11, forwarding petitions from the principal inhabitants of Hoobli, Gudduck, Bunkapur, and Luxmasher, praying for the speedy construction of a railway between Carwar and Gudduck.

2. In my despatch of the 9th instant, No. 6, acknowledging the receipt of a similar petition from native cotton merchants, I requested that they might be informed that the scheme in question is not to be regarded as definitively abandoned, although temporarily suspended, for certain specified reasons. I request that a similar reply may be made to the present petitioners.

No. 290. ORDER THEREON, 17th November 1874, No. 3,251.

RAILWAY, No. 44.

ORDERED that the Government of India be addressed on this subject, and, with reference to previous correspondence, that a reconsideration of the decision now communicated be solicited as regards the construction of a line from Bellary to Gudduck or Hoobli.

(Here enter No. 3,252, dated 17th November 1874.)

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.

Exd. S. T. Austin.
Spare Copies

Govt. of 1874 Madras.

PUBLIC WORKS.

To

THE CONSULTING ENGINEER

FOR RAILWAYS.

Dated November 17th.

Read. *Encl.*

G. O., 17th November 1874, No. 3,251.

NOVEMBER.

Nos. 289-290

Railway from Bellary to Gulduck.—The Government of India addressed on the subject of the proposed extension from Bellary to Gudduck.

PUBLIC WORKS DEPARTMENT,

OOTACAMUND, *17th November* 1874.

No. 291.

No. 3,252.

FROM

COLONEL G. W. WALKER, R.E.,

Secretary to the Government of Madras,

Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

Public Works Department.

RAILWAY, No. 45.

Letter from Government of India, No. 2,132 R, dated 5th September 1874.
Endorsement of Government of India, No. 2,197 R, dated 12th September 1874.

SIR,—I am directed to acknowledge the receipt of your letters quoted in the margin, on the subject of the proposed Railway from Bellary to the cotton producing districts about Gudduck in the Southern Mahratta country. It is observed from the Secretary of State's despatch, No. 6, dated 9th July, and the subsequent despatch of the 30th July, No. 8, that the Gudduck and Carwar Railway project has not been definitively abandoned as was supposed by the Government of Madras, but only temporarily postponed. Financial considerations, however, as well as the claims of other schemes of a similar nature, are held to preclude any immediate action in the matter at present, or any expectation of an extension of the Madras Railway beyond Bellary.

2. The Government of India are aware from the correspondence which has already taken place that the Madras Government are very desirous, in the interests more especially of this Presidency and of the cotton trade, that whether or not the proposed line from Carwar to Gudduck is sanctioned, a line of railway should be constructed from Bellary to Gudduck—a line as to the advantages of which no doubt can be entertained and which would in all probability have to be constructed should the Carwar line ever be sanctioned. His Excellency the Governor in Council would therefore request a reconsideration of the present decision, and that permission be given for the early commencement of the line from Bellary to Gudduck or Hoobli, either on the broad or narrow gauge as may be decided by the Government of India.

3. It will be observed that the line will undoubtedly bring a considerable accession of traffic to the Madras Railway, which does not at present pay its guaranteed interest, and also add to the receipts of the proposed harbour at Madras.

I have the honor to be,

Sir,

Your most obedient servant,

Colonel, R.E.,

Secretary to Government.

Exd. S. T. Austin.

Spare Copies

No. 2197 R.

All communications should be addressed to the Secretary.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

Railway

Fort William 12th September 1874.—

Copy of the following forwarded to the Government of Madras in the Public Works Department (Railway) for information in continuation of P. W. D. No 2132 R dated 5th September 1874.—

By Order.—

C. Edwards Major R.E.

Offg: Under Secretary.—

No 8 R dated 30th July 1874.—

From

The Secretary of State for India

To

His Excellency the Honorable the Governor in Council,

Bombay.—

I have received your Excellencys letter of

June last, N:11, forwarding petitions
the principal inhabitants of Hubli &
K, Bunkapur, and Luxmasker praying
the speedy construction of a Railway &
Sadar Kariwar and Gadak.

my Despatch of the 9th Instant, N:6,
acknowledging the receipt of a similar &
from native cotton merchants, &
requested that they might be informed that
scheme in question is not to be regarded
definitively abandoned, although &
temporarily suspended for certain specified
reasons. I request that a similar reply may
be made to the present petitioners.—

P. W. 1874 Depart.
Offg. Govt for Ldrs
No 5893.

From.
The Govt of India.

Dated 12th
Recd 19th } Sept 1874.

No 2197 R.

G. O. No 3281. 17-11-74.
Forwarding
a copy of a Despatch
from the Secretary of
State addressed to
the Government of
Bombay replying
to a petition praying
for the speedy con-
-struction of the
Railway between
Karwar & Guddadk
& intimating that
the work has been
postponed but not
abandoned -

No 289 ct
Despd to Bombay 19 Sept 74

Railway.
No 6.

India Office.
London 9th July 1874.

To

His Excellency the Honorable
the Governor in Council
Bombay.

Sir

1. I have had before me in Council the petition forwarded with your Excellency's letter of the 21st May last, No 9 from the principal native cotton Merchants trading with the Southern Mahratta Country .... which prays that sanction may be given to the speedy construction of the Karwar Gudduck Railway.

2. I should wish the petitioners to be informed that the Railway project in question is by no means to be regarded as definitively abandoned, although its temporary suspension is necessitated — both by financial consideration and by the equally, and even more pressing

claims

claims of other schemes of a similar character.

I have &c.
(Sd) Salisbury.

W.

4

No. 367 of 1874.

RAILWAY DEPARTMENT.

FROM

THE SECRETARY TO THE GOVERNMENT OF BOMBAY.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA.

SIR,

With reference to your letter No. 211 S. R., dated 9th February 1874, I have the honor to forward, for the consideration of the Government of India Report, accompanied by plans and estimates, on a project for a Railway on the Metre Guage from Gadak to Bellary:—

Report on a trial line from Hubli to Hoodjee near Sholapur on the Great Indian Peninsula Railway;

Report on certain improvements that have been effected on the Ghaut section of the Karwar and Gadak proposed metre gauge Railway.

2. A note by the Acting Consulting Engineer accompanies the papers, and the result of the investigations is briefly as follows:—

Two lines from Gadak to Bellary have been examined; one by Copal and Hospeth, the distance being 91¼ miles, and the other, Dumal and Hospeth, the distance being 104 miles.

The probable cost of the former according to Mr. Shaw's estimate, as modified by the Acting Consulting Engineer, is 57 lakhs, or Rs. 62,000 per mile, and of the latter 68 lakhs, or Rs. 66,000 per mile, including rolling stock (at Rs. 7,000 per mile) cost of surveys and interest on Capital during construction estimated to occupy two years.

3. If the estimate for the more direct line (*i. e.* that by Copal) be added to the estimate of the Committee of the line from Karwar to Gadak 110 lakhs, the cost of the entire line from Karwar to Bellary will work out to about Rs. 72,000 per mile, including all charges, the distance being 233 miles, and the total probable cost 167 lakhs, which is 7 lakhs more than the Karwar Committee assumed in the 62nd para. of their report.

4. The trial line from Hubli to Hoodjee has not been estimated in detail, but from the nature of the country and after careful examination of difficult river crossings Mr. Shaw puts down the cost at about Rs. 10,000 a mile more than the line from Gadak to Bellary.

5. The Acting Consulting Engineer accepting this estimate, but making allowance for possible reduction in the length of the line from 196 to 180 miles, gives the probable cost at 128 lakhs, or at the rate of Rs. 71,000 a mile, including all charges as before.

6. The seasons operations have resulted in an improvement of the Ghaut section on the Karwar Gadak line as regards curves and gradients, which will

reduce the cost of working; but the estimate, though somewhat reduced, has not been materially affected, and may be taken at the former amount.

7. If the Secretary of State's decision, as conveyed in his despatch No. 10, dated 6th November 1873, regarding the Karwar Bellary Railway, be considered as finally disposing of the subject, the present reports and estimates might, so far as that Railway is concerned, be recorded without further notice; but His Excellency in Council, I am directed to say, thinks that a further examination of the subject will show that there is reason to justify a reconsideration of that decision.

8. Before, proceeding to state his views on this point it will be well to endeavour to clear the question of complication in respect to the suggested line from Hubli to Hoodgee on the Great Indian Peninsula Railway.

9. This line is roughly estimated to cost 128 lakhs, and is mile for mile nearly as expensive as the Karwar Bellary line.

10. The distance from Hubli to Bombay *vid* Hoodjee, is about 500 miles. The distance from Hubli to Karwar, is 110 miles, and from Hubli to Madras is 432 miles. It appears, therefore, that the Dharwar Cotton fields would be more directly served by a connection with the Port of Karwar, or even by being connected with the Railway system of Southern India at Bellary than by a connection with the Great Indian Peninsula Railway at Sholapur, to which arrangement there are also the objections noted by the Government of India in para. 6 of their letter No. 1062 S. R., dated 3rd August 1872, which runs as follows:—

> "A leading consideration in the alignment of Indian railways should be, and has been, their value as supports to the military position, and in this view it is not desirable to throw too much on one line of railway. The Great Indian Peninsula Railway, besides its own large traffic, will shortly be fed by the Nizam's railway and the line from Khundwa to Indor, and it will possibly receive accretions of traffic from railways in the Warda Valley and Chattisgarh. The system of communication, wholly dependent on the working of the Great Indian Peninsula Railway, will thus soon be unusually large without the addition of fresh feeders from districts whose produce could be received as economically at some other port than Bombay."

11. A line from Hubli to Karwar, or even from Hubli to Bellary, would also seem preferable to a line from Hubli to near Sholapur, as forming part of a distinct system of Railway communication having its terminus on the Western coast at an efficient Port in addition to Bombay. Such a system in fact is as likely at no distant period to be required, and to be carried out in this part of the continent even if it be now postponed.

12. For these general reasons, apart from minute calculations of tariffs, or comparative difficulties of construction, or other such considerations, His Excellency in Council is disposed now to confine his attention to the projected line between Karwar and Bellary.

13. While the Government of Bombay have advocated the prosecution of the entire line on the ground set forth in my letter No. 179, dated 5th February 1873, which submitted the Karwar Committee's report, the Mercantile community of Madras have urged the construction on the standard guage of a line

from Bellary to Gadak only, and the case as regards this proposal is clearly put by the Madras Government in their Resolution No. 3066, dated 20th December 1873, as follows:—

> "That the time has come for determination of the question whether it "is to be undertaken irrespectively of the Karwar Railway, in continuation "of the Madras Railway and on the same gauge, or whether, as stated in "para. 3 of letter of the Bombay Government to the Government of India "of 9th September 1871, it is to be looked upon merely as one of a system "of narrow guage feeders to the Karwar Railway to be constructed or not "according as that main outlet to the sea is brought into existence or "otherwise."

14. Before therefore proceeding to make such observations as suggest themselves on the Secretary of State's reasons for rejecting the entire project from Karwar to Gadak, I am directed to offer the following remarks on the Gadak and Bellary section taken by itself.

15. This section has found its chief advocate in Mr. Strange, whose report was received just before the Karwar Committee closed their proceedings, and was briefly noticed by them in their postscript.

16. It was then considered that the views of Mr. Strange and of the Madras Community would be met by the proposal that was made to construct the entire line from Karwar to Bellary, but, if only that section which lies between Gadak and Bellary is to come under consideration, an examination of Mr. Strange's figures and data seem requisite.

17. Mr. Strange in his memorandum dated September 1872, has arrived at two conclusions:—

> 1*st*.—That the proposed extension would be a financial success, and would return a dividend of 6 per cent. per annum.
>
> 2*nd*.—That the interests of commerce generally, and especially those of the Southern Mahratta Country, would be better served by such a Railway than any other.

18. A narrow guage line would, it is estimated, cost Rs. 57,00,000, and a broad guage line Rs. 68,00,000.

19. The commodities of traffic enumerated by Mr. Strange may be taken as correct, but his estimate of quantities requires some modification.

20. The total amount of cotton produced in the districts around Gadak certainly does not average more than 35,000 tons annually, of this about 30,000 tons under existing circumstances finds its way to the west coast, chiefly to the ports of Koompta and Karwar, and it is not likely that more than 1/3rd of this amount would be diverted by an extension of 90 miles of Railway from Bellary. The cotton from the neighbourhood of Bunkapoor in the South West would continue to travel down by the Ghaut roads to Koompta, and that from the country in the direction of Hubli would travel as now either, *vid* Belgaum, to Vingoorla or to Carwar. Considering that the cotton from Damal, which is within 80 miles of Bellary and 160 miles from Koompta, now finds its way to the west coast by carts, and the great inducement necessary to divert traffic,

from natural and old established routes, the estimate of 15,000 tons for the eastward cotton traffic appears as high as it can with prudence be taken Of this 15,000 tons about $\frac{1}{3}$rd would have a haulage over the extension about 45 miles, and the remaining $\frac{2}{3}$rds 90 miles, giving a total ton mileage of 11,25,000.

21. Sugar from Hospett, 45 miles from Bellary, and the sugar producing country is estimated at 10,000 tons, this would give a ton-mileage of 4,50,000.

22. Miscellaneous goods, through and local, were estimated in the Committee's Report on the Karwar and Gadak project for a line 144 miles long at 20,000 tons, 13,000 tons may be taken for the Bellary extension 90 miles in length, the average mileage being 35,* this gives 4,55,000 ton miles.

23. The Coaching traffic, including miscellaneous receipts may be taken, as estimated by Mr. Strange, at a total of Rs. 2,00,000. The total traffic would therefore be :—

Cotton full pressed ton miles....	2.59,554 @ 14 pies	= Rs.	1,40,629
Do. half pressed and docras ..	8.65,446 @ 27 pies		
Sugar	4,50,000 @ 1 anna	= „	28,125
Miscellaneous	4,55,000 @ 1 anna	= „	28,437
Total.	20,30,000	Rs.	1,97,191
	Coaching &c.	„	2,00,000
Total receipts.....		Rs.	3,97,191
Deduct—			
Working expenses @ 50 per cent..		„	1,98,595
Net Revenue..		Rs.	1.98,596

24. This gives a return of 3·48 per cent. on the Capital cost of a narrow guage line, and 2·9 per cent. on the cost of a broad guage line.

25. From this it appears that with the high rate for the carriage of cotton averaging about 2 annas a ton mile, and the low rate of 50 per cent. for working expenses, the proposed extension would hardly pay 3½ per cent. on the Capital expenditure for a narrow guage line.

26. If the rate of 1 anna per ton mile adopted by Mr, Strange be applied, the results would be:—

Goods traffic	Rs.	1,26,874
Coaching	„	2,00,000
	Rs.	3,26,874
Expenses	„	1,63,437
Net Balance ..	Rs.	1,63,437

27. This would give a dividend of 2·87 and 2·4 per cent. for the narrow and broad guage respectively.

* The average mileage of all goods, including through traffic on the Great Indian Peninsula Railway, is $\frac{1}{6}$th of the total length of the line, and on the Bombay, Baroda, and Central India Railway $\frac{1}{4}$th.

28. There are one or two points in Mr. Strange's estimate of traffic which it may be as well to notice.

29. By an extension of 90 miles from Bellary he expects to attract to Madras about $\frac{3}{4}$ths of the cotton of the Southern Mahratta Country now finding its way to the West coast. To show the improbability of this, it is only necessary to call attention to the small quantity of cotton now finding its way to Madras from Bellary, had the Madras market the advantages claimed by Mr. Strange it is certain that even now a considerable portion of the 35,000 tons would find its way there.

30. Having claimed this comparatively large cotton traffic, Mr. Strange assumes that it will travel over the entire length of his line. It can be scarcely necessary to point out that it is too favourable an assumption.

31. All the traffic (including local) has been treated in a similar way, not even excepting the sugar from Hospett, which is situated almost exactly halfway between Bellary and Gadak. This of itself appears sufficient to invalidate his estimate.

32. It is understood that the freights from Madras and Bombay to Liverpool are from 10*s*. to 15*s*. in favor of Bombay, and that the freight from Karwar averages about 5*s*. more than the freight from Bombay, and 5*s*. less than that from Madras.

33. For 8 months in the year insurance is ¼ per cent. cheaper from the West coast than from the Coromandel Coast.

34. It may thus be observed that the existing circumstances seem clearly to point out how the commerce of the Southern Mahratta Country would be best served.

35. Bellary, which is in direct communication with Madras, is on the verge of the cotton growing districts of Dharwar, and within 80 miles of their centre, yet not more than a small fraction estimated by the Consulting Engineer at 1/15th of the cotton produced there finds its way to Bellary, the remainder reaching the West coast by various routes. It thus appears that only cotton produced in close proximity to the Railway line is likely to be diverted towards Madras out of its natural course.

36. That cotton tends towards Bombay in preference to Madras is shewn by the fact that there is a regular supply to the former place from localities on the Madras side of Raichore which is, allowing for Ghauts, 474 miles from Bombay, and only 350½ miles from Madras, and this with much higher mileage rates for the longer distance.

37. Take Adoni, which is 307½ miles from Madras, and 517 from Bombay, for instance, the Great Indian Peninsula Railway returns show the following figures:—

Cotton from Adoni to Bombay—

	Maunds.
1st half 1872.....	15,809
2nd „ „	7,303
1st half 1873.....	1,322
2nd „ „	1,751

The quantity is not large, but the supply is continuous.

38. The following figures show the approximate cost of transporting a ton of cotton from Gadak to Liverpool, *viâ* Suez Canal, by each of the routes, assuming that it is conveyed to the coast in a half pressed state:—

Viâ Bellary and Madras.

	Rs.
Gadak to Bellary @ 24 pies per ton mile ..	11·25
Bellary to Madras existing rate	25·55
Shipping, &c.	2·3
Freight	35·1
Insurance	5·8
Total..... Rs.	80·0

Viâ Karwar.

	Rs.
Gadak to Karwar @ 24 pies per ton mile	18·0
Shipping, &c.	3·0
Freight	32·8
Insurance	4·8
Total .... *Rs.	58·6

Viâ Karwar and Bombay.

	Rs.
Gadak to Karwar.....	18 0
Steamer to Bombay including insurance	17·0
Shipping, &c.	4·0
Freight	29·0
Insurance	4·8
Total.....Rs.	72·8

39. It seems, therefore, probable that the Gadak extension of the Madras Railway if constructed would pay not 6 per cent. on the Capital outlay, but only at the very outside rather less than 3 per cent., while having regard to the westward flow of traffic the existence of which is established on sufficient evidence, it is probable that the same line on the narrow guage in connection with a Railway to the coast would earn at least as much as the Western part of the same line, or according to the Karwar Committee's return from 3·63 to 4·09 per cent.

40. But though in His Excellency in Council's opinion it is abundantly clear that a Railway from Bellary to Gadak would not serve this part of the country so well or earn so large Revenue as a Railway from Bellary or even from Gadak to Karwar would do; yet I am to add His Excellency in Council would rather see such a line constructed than none at all, feeling sure that sooner or later it would be found necessary to continue it to Karwar, and to carry out the original proposal, and in this view any such Railway, His Excellency thinks, should be on the narrow guage.

* This is about the cost to the Dharwar cotton dealer of conveying one ton of cotton to Bombay under existing circumstances.

41. I am now to refer to the Secretary of State's Despatch No. 161, of 6th November 1873. It is therein stated that "the Committee hold out very faint hopes" that the line they recommend would earn a net revenue amounting to the interest of the Capital proposed to be invested, their estimate being that such net revenue would amount to 3·63 or 4·09 per cent. according to the rate at which the working expenses are calculated; but I am to observe that the Committee's report was most carefully and cautiously framed, and, as was stated in my letter No. 179, dated 5th February 1873, the result may be fairly considered as a minimum.

42. The estimates of traffic were largely based on accurate official returns, and perhaps in the case of no Railway yet constructed or projected in India has so much and such reliable data been availed of for arriving at a reasonable estimate of expected traffic. In a recent despatch from the Government of India to the Secretary of State, the immediate construction of an extension of the Warda Valley State Railway has been unhesitatingly advocated on a conjectural estimate that it would pay 4 per cent. on its cost.

43. The estimates of Capital outlay were full and safe, and as has been remarked in the course of the correspondence, were considerably more than the Consulting Engineer for State Railways, Mr. Molesworth, thought would suffice, while no allowance has been made for the expansion of traffic which is the natural and inevitable result of every improvement in means of communication.

44. It is stated that the aggregate of entire traffic is made up of items "in respect to which scarcely any positive data exist," but when this remark was written it must surely have escaped observation that in regard to the principal items actual Customs' or other reliable returns formed the basis of the calculations.

45. It is quite true no doubt that the rapidly recovering ability of the United States to meet the English demands may affect the exports of Dharwar cotton to England, but there is a large export trade in this staple to Foreign ports, and when Indian cotton was cheaper in the English Market than it is now, or is ever likely to become again, the growth in Dharwar was not materially less than it is now. It seems also probable that Dharwar Cotton shipped direct to ports in the Mediterranean, Adriatic, or Black Seas, will always be able to compete with American Cotton, which reaches those ports, *viâ* Liverpool or Havre, and that the construction of this Railway will in reality save the trade in this staple to the Southern Maratta Country. It will also help to keep up the supply for local mills in the City of Bombay, and in other parts of this Presidency.

46. It has also been advanced with great force that the competition of American cotton in the Europe markets is not a good reason for relaxing efforts in this country, but on the contrary should rather stimulate efforts for facilitating and cheapening transport so that the Indian produce may be in a better position to compete than it now is.

47. It is only reasonable and fair also in considering this Railway to give it some credit for the effect it could not fail to have on the country it would traverse, even if it be held that its direct results as a speculation would be

doubtful. The indirect advantages which would accrue to Government if the Railway were made, were adverted to by the Committee in their 72nd para., and embraced an increased land assessment of about 1½ lakh of rupees per annum, increased forest revenue, increased consumption of salt, and diminution of smuggling. These should not be lost sight of, and if not sufficient to turn a wavering scale, it should also be considered that the case has been rendered as doubtful as the Committee's figures make it, only by adopting a high estimate of construction, a cautious and safe estimate of gross traffic, and a very high rate of working expenses. It may also be urged in favor of the line, apart from its prospects as a mere speculation, that in the case of a famine in the Southern Maratha Country, it would be very difficult, if not impossible, without a communication of this kind, to relieve the inhabitants of that part of India; and in the event of a stoppage of traffic or a breakdown of the Bhore Ghaut, it would be an immense advantage to have an outlet for the trade of Southern India. The imprudence of concentrating all the trade on a single line, with a weak part like the Ghaut incline, has already been noticed and adverted to by the Government of India. Bearing in mind the probability that the Great Indian Peninsula Railway may not ultimately be able to take all the traffic between the Southern and South Eastern parts of Hindostan with the Western Coast, it would be a great advantage to have an alternative route to afford the required relief.

48. It is *possible* no doubt that the Karwar Railway if constructed might prove a disappointment, but at least it may be remarked that if the cautiously and guardedly framed estimates of the Committee are not accepted as giving a fair and reasonable expectation of safety, it is difficult to understand what assurances could be obtained that would justify the State in authorizing the prosecution of any similar undertaking. Certainly, His Excellency in Council believes, that in no case of any State or other Railway undertaken or projected in India have calculations been made in such detail and so reliable, to show that the work might be undertaken with a fair prospect of financial success.

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

M. K. KENNEDY, Colonel, R. E.,
Secretary to Government.

BOMBAY CASTLE,
16*th March* 1874.

GOVERNMENT OF BOMBAY.

RAILWAY DEPARTMENT.

To

THE SECY. TO THE GOVT. OF INDIA

IN THE RAILWAY DEPT.

No. 367.

Dated 16*th March* 1874.

Received

P.W. 5818/74
2

With reference to your letter No. 211 S. R., dated 9th February 1874, forwards, with views, reports and estimates, on a project for a Railway on the Metre Guage from Gadak to Bellary.

R. D. Press.—16-3-74.

P. W. 1874 Department.
Proc: of Govt for Nov
No. 5818.

From.

The Government of
India.

Dated 5th
Rec'd 15th } Sept. 74.

No. 2132 R

Enclosures 34.
1 Report, Plan, and Estimates
Vide Library Reg: 367.

Forwarding
correspondence together
with Plans & estimates
relating to the proposed
extension of the Madras
Railway from Bellary
to Guddauk -

G.C. No: 3251. 17-11-74.

No 289
Despd to Govt 15 Sept 74

P.W.C.

Proceedings of the Madras Govt

Read the following:-

Letter from the Govt of India, No. 2132 R
of 5th September.
Endorsement of Do No. 2197 R of 12 Sept

Ordered that the
Govt of India be ad-
-dressed on this subject,
and with reference to
previous correspondence
that a reconsideration
of the decision now
communicated be
solicited ~~so far~~ as
regards the construc-
-tion of a line from
Bellary to Guddauk
or Hubbee-

H. E. &c dated

24/11

SDS
24/10

C. R. for Regr.
Signed & Copies Dept. 24/11/74

To
The Secretary to the Govt.
of India, S.P.W.D.

Sir,

I am directed to acknowledge the receipt of your letters quoted in the margin, on the subject of the proposed Railway from Bellary to the Cotton producing districts about Gudduck in the Southern Mahratta Country. It is observed from the Secretary of State's Despatch No. 6, dated 9th July and the subsequent Despatch of the 30th July No. 8 that the Gudduck and Carwar Railway project has not

Letter from Govt. of India No 2132 R.D. 5th Sept.
Endorsement of Govt No. 3197 R.D. 12th Sept.

not been definitively abandoned as was supposed by the Govt. of Madras, but only temporarily postponed Financial consideration however, as well as the claims of other schemes of a similar nature, are held to preclude the subject being re-
-turned at present, and to discourage any expectation of an ex-
-tension of the Madras Railway beyond Bellary.

The Govt. of India are aware from the correspondence which has already taken place that the Madras Govt.

are very decisive, in the interests more especially of this Presidency and of the Cotton trade, that whether or not the proposed line from Carwar to Guddack is sanctioned, a line of Railway should be constructed from Bellary to Guddack - a line as to the advantages of which no doubt can be entertained by His Excellency the Governor in Council would therefore request a reconsideration of the present decision, and that permission

be

be given for the early commencement of the line from Bellary to Guddack or Hoobleé either on the broad or as may be decided by the Govt of India.

Guest

3/17

are the Survey's done?

I understand that

Might be best add not also say that the line will undoubtedly bring an accession of trade to the Madras Railway which does not at present pay its guaranteed interest and also add to the receipts of the Portsd Harbour at Madras?

Guest

with Previous Pro. signed & 1 copies Despd 24/11/74.

Rec'd Sept.

Sir W. R. Burnett K.C.B.
&c. &c. &c.

Bombay Castle 1st Sept. 1845

Sir W. Burnett

Sir

I am directed to acknowledge the receipt of your letter dated on the margin on the subject of the proposed Railway from Bellary to the Cotton producing Districts about Gaddack in the Southern Mahratta Country. It is observed from the Secretary of State's Despatch No. 6. dated 9th July and the subsequent Despatch of

× Letter from G. of I. No. 2132 R. dated 5th Sept.
Endorsement of do - 2197 R. 8
12th Sept.

Ord 24/10/45

of the 30th July 1858, that the Cuddapah and Carwar Railway project has not been definitively abandoned as was supposed by the Govt. of Madras, but only temporarily postponed - Financial considerations however, as well as the claims of other schemes of a similar nature, are held to preclude any immediate action in the matter at present or any expectation of an extension of the Madras Railway beyond Bellary -

The Govt. of India are aware from the correspondence which has already taken place that the Madras Govt. are very desirous in the interests more especially of this Presidency and of the Cotton trade, that whether or not the proposed line from Carwar to Cuddapah is sanctioned a line of Railway should be constructed from Bellary to Cuddapah - a line so to the advantages of which no doubt can be entertained and which would in all

probability have to be constructed should the Cuddapah line ever be sanctioned - His Excellency the Governor in Council would therefore request a reconsideration of the present decision and that permission be given for the early commencement of the line from Bellary to Cuddalore or Vadalee either on the broad or narrow gauge as may be decided by the Govt of India.

If

It will be observed that the line will undoubtedly bring a considerable accession of traffic to the Madras Railway which does not at present pay its guaranteed interest, and also add to the receipts of the proposed Harbour at Madras.

Gen. W

P.W.D. 47

Proceedings of the Madras Govt.

Read the following:-

Letter from the Govt. of India, No. 2132 R
of 5th September

Endorsement of do No. 2194 R of 12th Septr/74

The former of the above papers gives cover to copies of letters from the Govt. of Bombay & the Govt. of India on the subject of a Railway from Bellary to Cuddapah and its extension towards Carwar copies of which had been already received from the Government

of

I do not think

there is any advantage

of Bombay, with copies
of Reports and Estimates,
as recorded in G. O.
No. 1078 of 28th April
and communicated
to all interested in
the same - It also
incloses copy of a
despatch from the
Secretary of State
for India announcing
that the Project of
connecting Canara
with the Southern
Mahratta country
by a Railway is by
no means to be re-
-garded as definitely
abandoned, but only
temporarily suspended

on

in a less sophisticated
such as it was
pursued - the
undertaken
to find. the S.I.
(as understood)
days and deny that
they had been
induced to
give up Railway
& pushed
irrespective of the
Judduk and
Canara Project.
It appears
(on the
contrary) that the

for the state surveys
in part of a line
from Bellary & Gadag
to the
Canara - Judduk
line is under
stood. But it
has been found
necessary officers
for adjust the
Railway Project
until further trial
so many works are
at present in
hand & that
Railway Com & Line

on financial consi-
-derations and on
account of more
pressing claims -

The second paper
gives cover to copy
of a similar commu
-nication from the
Secretary of State for
India.

Both papers are
in reply to letters
from the Govt. of
Madras Nos. 458 and
No. 2030 of 24th February
and 28th July 1874;
as well as to No. 3866 of
of 20th December 1873
and it is assumed
by the Govt. of India

in

on their reply that the proposals of the Madras Govt. & Southern Mahratta Railway were based upon a decision adverse to the construction of the Carwar-Guddauk line; which adverse decision not having been arrived at, those proposals must necessarily fall to the ground. Whereas it will be seen from the correspondence that the position taken by the Madras Govt. from the first has been, that whether the Carwar-Guddauk line is sanctioned or not the Carwar-Guddauk line were sanctioned there was a unanimous concurrence of opinion among all authorities both in the Madras and Bombay Presidencies that the Guddauk-Bellary line was urgently required. And they proceed for determination whether the line was to be looked on merely as one of a system of narrow gauge feeders to the Carwar Railway or to be constructed

in the nature of a main line. I think the most we can do is to reply that in my letter of J. J. in answer from Government correspondence we are desirous, as the Madras Govt. are aware, of extending railway communication from Bellary to Guddauk. We would therefore suggest a reference to Madras Govt. & that if possible, permission be given for the proposed line from Bellary to Guddauk (a distance of about 110 miles) and also for the survey to be made

Vide J. of Index. 10/10

irrespectively of that line. It was not till they were informed by the Govt. of India in letter No. 15 P.R. of 26th January that "Her Majesty's Govt. "had declined to sanction "the construction of the "Carwar Railway" that they then assumed that the Bellary-Guddack line was to be carried out irrespectively of the former, and claimed that the Survey and Execution of the work should be entrusted to the Engineers of the Madras Railway.

The Govt. of Madras are now informed that no expectation should be held out to the Madras Railway Company that their assistance will be required in any way. And they are referred to a communication from the Secretary of State for India, bearing date long antecedent to that of the correspondence in which the statement of the Madras view of the case is made, entirely refusing the proposals

of the Directors of the Madras Railway to undertake the extension from Bellary to Guddruck.]

His Excellency the Governor in Council is not satisfied that justice has been done to the interests of the Madras Presidency, or to those of the Southern Mahratta Country, [by the manner in which this question has been handled, either at Calcutta or at home.] And he resolves to request that it may not be allowed, but

Mark Red as to the letter & modify the latter part of this into a request for reconsideration and permission for or to the selection on either broad or narrow gauge as may be determined by the Govt. of India — when the plans & estimates for the Line taken up shall have been received

2/10

point that the construction of a line between Bellary and some emporium in the Southern Mahratta country be treated quite irrespectively of the Jaswar line, and be not positioned to it. Also that it be considered with reference to the important question where a break of gauge may most conveniently be endured; the opinion of this Govt. that such break should occur at some emporium

like Kubbee which must ultimately become a Railway Centre, being treated with the deference to which it is entitled, and not arbitrarily put aside without reason being assigned. It may well be that the construction of the Ballary-Buddicia Railway must be deferred on financial or other considerations, but its relative importance to the various lines demands, in the opinion of His Excellency the Governor in Council that its execution be not dependent on, or postponed to, that of the latter. Regarding which it may yet have to be deliberated whether it should not, with reference to its being a ghaut line, and to the speciality of its traffic, be carried out on a much narrower gauge, and with much steeper gradients, than are at present planned.

Govt

The Secretary would res-
pectfully submit that a
Govt. Order rescinding the
whole case is absolutely ne-
cessary to place this Govt.
in a proper position with the
public, as represented by
the Chamber of Commerce
and Madras Mail; who
will have just reason for com-
plaint if a course which
they have so much deprecated,
and which the Govt of India
have undoubtedly failed to
treat with the consideration
it deserves, be taken, re-
-luctantly without energetic,
though respectful, protest -

Moreover, it would be state-
-ment to an absentee
of the interests represented
by the Chamber of Commerce
and Madras Mail, neces-
-sity to urge that Nothing and
Guddimuk may be evacuated
by Reading at once, like
-ther it be on a Peace
or War Footing - The Govt. of
India may perceive, it cannot

Lieut 1/10/24

X

be carried out now, as certain financial considerations - But these considerations need not interfere with the determination of the question as often and so plainly put before them, whether the line be a break of gauge or to be - If not to be at such an expensive as Stubbee, why must it be at Bellary? Why not on the frontier, at the Tombudden crossing, where the Madras Railway may at least benefit by the trade of the Western Districts - If a line from Stubbee to Bellary be laid on the narrow gauge, the extension of the narrow gauge to Chitaldroog would follow, in the Secretary's opinion -

Rather than commit the Govt to a policy which will inevitably give great dissatisfaction, the Secretary would advocate simple communication of the Proceedings of the Govt. of India to the Chamber of Commerce and Tin Cus & Surveyor for Railways -

Chas Trevelyan Lt R.E.
Secy to Govt P.W.D.

12-10-74.

I think that the proposal address the Govt of India in the sense of this note: the case will then be with them + can ask a Board of Engineers to maintain the broad gauge as far as Bellary on Military grounds & indeed on the same ground for carry the light Railways to Districts. The opinions of the Collector & Civil Surgeon of Bellary are decidedly in favour of a good line of any gauge provided it will give all that is really wanted at the lowest calculated outlay cost - Private Boards on financial speculations

13/10 1862

I see no objection to the proposal contained in the above note. I do not object to a reference to Engineer officers, as suggested by Secretary of State.

I do not object to a reference to Engineer officers, as suggested by Secretary of State.

20/10 14/10

5818
5893

Govt. of 1874 Madras.

PUBLIC WORKS.

To

The Secretary to Govt.
Irrigation Branch

1 Plan
Report & Estimate.
of the Railway Line
from Gidduck to
Bellary. Encl. in
plan up with the
Library. No 667

Dated

Recd.

G. O. 17th Nov. 1874. No. 3254
3252

Nos. 247-251.

Railway from Bellary to
Gudduck. The
Govt of India addressed
the subject of the
proposed ~~railway from~~
~~Gudduck to Bellary~~ railway
from Bellary to Gudduck