

PUBLIC ACCOUNTS COMMITTEE
(1977-78)

(SIXTH LOK SABHA)

TWELFTH REPORT

NEW LINES AND LINE CAPACITY WORKS

MINISTRY OF RAILWAYS
(RAILWAY BOARD)

[Paragraphs relating to New Lines and Line Capacity Works included in the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]



Presented in Lok Sabha on 13.11.77

Laid in Rajya Sabha on 18.11.77

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23	1.38	2	Commence to	Commence so
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PART II*

Minutes of the sittings of PAC held on

3-9-76 (AN)

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(1977-78)

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INTRODUCTION

I, the Chairman of the Public Accounts Committee, as authorised by the Committee, do present on their behalf this Twelfth Report of the Public Accounts Committee (Sixth Lok Sabha) on paragraphs relating to New Lines and Line Capacity Works included in the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways).

2. The Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways) was laid on the Table of the House on 6 May, 1976. The Public Accounts Committee (1976-77) examined the paragraphs relating to New Lines and Line Capacity Works at their sittings held on 3 September, 1976 but could not finalise the Report on account of the dissolution of the Lok Sabha on 18 January, 1977. The Public Accounts Committee (1977-78) considered and finalised this Report at their sitting held on 14 September, 1977 based on the evidence taken and the further written information furnished by the Ministry of Railways (Railway Board). The Minutes of the sittings form Part II* of the Report.

3. A statement containing main conclusions/recommendations of the Committee is appended to this Report (Appendix). For facility of reference these have been printed in thick type in the body of the Report.

4. The Committee place on record their appreciation of the commendable work done by the Chairman and the Members of the Public Accounts Committee (1976-77) in taking evidence and obtaining information for this Report.

5. The Committee also place on record their appreciation of the assistance rendered to them in the examination of these paragraphs by the Comptroller and Auditor General of India.

6. The Committee would also like to express their thanks to the Chairman and Members of the Railway Board for the cooperation extended by them in giving information to the Committee.

NEW DELHI;

September 22, 1977.

Bhadra 31, 1899 (S).

C. M. STEPHEN,

Public Accounts Committee, Chairman.

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CHAPTER I

NEW LINES

Southern Railway—Hassan-Mangalore Railway Project.

Audit paragraph:

1.1. In order to facilitate the transport of iron ore, the Ministry of Transport decided in 1959 that certain roads in Karnataka including Hassan-Mangalore road should be developed to all weather standard road with 12 feet wide black topped carriage way and 5 feet wide shoulders of suitable material on either side. For the development of this road, the Government of India agreed to provide a grant of Rs. 26.64 lakhs. This work was sanctioned by the State Government in March 1961 and completed in all respects by March 1969 at a cost of Rs. 3.54 crores. The Railway Board became aware of the road development work in 1962.

1.2. The development of Mangalore port as an all weather major port and also the construction of a railway line to link the port to the hinterland was approved in the Third Five Year Plan.

1.3. In August 1963, the Railway Board was advised by the Ministry of Transport that the Mangalore Harbour Project had been sanctioned and had been planned for execution and completion within 5-6 years and that it was most essential to go ahead with and complete as quickly as possible, in the first instance, the broad gauge line between the existing Mangalore railhead and the new port site at Panambur; this facility was indispensable for the construction of the major harbour, as the line would enable transportation of approximately 2 million tonnes of stone for breakwaters, 50,000 tons of cement, 15,000 tons of steel and all plant and machineries required for construction, operation and maintenance.

1.4. Accordingly the Railway Board, in October 1963, approved the construction of a dual gauge (broad gauge/metre gauge) connection from Mangalore station to the proposed port site (25.8 kms) as part of the Hassan-Mangalore Project. The Southern Railway Administration, on the advice of the Railway Board, sent an urgency certificate for an amount of Rs. 154.80 lakhs for "constructing the portion of the railway line connecting Mangalore station and the new Mangalore port in as short a time as possible so that the port will have the facilities of taking the materials and heavy machinery

on this rail link for the construction of new harbour." The total cost of this work (Mangalore to Panambur) was estimated at Rs. 208.28 lakhs. The urgency certificate was sanctioned on 24 October 1963 and the work was commenced in November 1963.

1.5. The final location survey report and the traffic appreciation of the Hassan-Mangalore Railway Project proper was completed in December 1963/January 1964; the project was estimated to cost Rs. 23.73 crores including the Mangalore-Panambur Section. The main line from Hassan to Mangalore (189 kms long) consists of 139 kms in plains and plateau and 50 kms in ghat sections. On the ground that the project was an indispensable rail link to serve the hinterland of the new major port under construction at Mangalore, the Ministry sanctioned in August 1964 the construction of the Hassan-Mangalore rail link as a metre gauge single line railway with broad gauge substructures for bridges and broad gauge profiles for tunnels.

1.6. The project envisaged a through metre gauge line from Hassan to Panambur, a total distance of about 200 kms and a branch line 5.6 kms in length from Kankanady station at kilometre 182 to run into Mangalore station and a mixed broad gauge/metre gauge link connecting the Mangalore station with the new port at Panambur.

1.7. The Project estimate amounting to Rs. 23.73 crores was sanctioned in November 1964. The estimated cost of the project was raised to Rs. 28.34 crores in October 1970. The latest revised estimate (March 1975) for Rs. 42.41 crores is awaiting sanction of the Railway Board.

1.8. The construction of the Railway connection from Mangalore station to Panambur, the site of the major port, commenced in November 1963. This was almost complete to be able to handle the movement of construction materials and machinery, etc., required for the new Harbour by the end of 1970; the link was completed by October 1972 at a cost of Rs. 2.6 crores. The Harbour authorities, however, did not use the railway for transport of the materials and machinery required for the Harbour Project on the ground that the rail transport was uneconomical. Consequently, the materials and machinery were moved by road. It was explained by the Harbour authorities that the boulder traffic for the construction of breakwaters did not materialise due to a change in the design from deep breakwaters requiring huge boulders to shorter breakwaters requiring smaller size stones for the movement of which road transport was cheaper. This rail link is now being treated as a siding from Mangalore to Panambur.

1.9. The work on the construction of the metre gauge line proper from Hassan to Mangalore was commenced in July 1965 and was targeted for completion in a period of 8 years to synchronise with the opening of the new Mangalore port. The Hassan-Mangalore link is still under construction. The new Mangalore Harbour Project was, however, actually sanctioned in June 1968 (and not in August 1963) and formally inaugurated in January 1975. The overall physical progress of the construction of the link upto the end of April 1975 was 79.15 per cent in the plateau and the plain sections and 69.70 per cent in the ghat sections. The progressive expenditure incurred upto the end of March 1975 was Rs. 30.03 crores. The Hassan-Mangalore link is now expected to be completed and commissioned by 1978-79 subject to availability of adequate funds in 1976-77 and in succeeding years.

Traffic projections and financial appraisal.

1.10. The initial financial appraisal of this new line alongwith the final location survey report and the project estimate sent to the Board in December 1963 took into account iron ore traffic of 2 million tonnes as indicated by the then Ministry of Mines and Fuel and in the Project Report of the Harbour which forecast, *inter alia*, iron ore traffic of 2 million tonnes by 1969-70, the return anticipated was 5.03 per cent in the 6th year and 5.86 per cent in the 11th year on a capital outlay of Rs. 23.73 crores (including the cost of marshalling yard at Panambur). It was clearly indicated in the Project Report that the justification of the rail link almost wholly rested upon the volume of iron ore traffic being not less than 2 million tonnes *via* Mangalore Port. Taking into account the different projections of iron ore, as made by the Indian Bureau of Mines (12.5 million tonnes) and the State Government (300 million tonnes), the financial appraisal was revised in March 1964 assuming a lower iron ore traffic of 0.5 million tonnes. In the light of the statement (October 1964) of the Chairman, M.M.T.C., it was expected that iron ore movement would take place by rail and road movement would stop as soon as rail link was available except in the case of one or two small deposits. The return anticipated was 1.17 per cent in the 6th year and 2.26 per cent in the 11th year based on steam traction and 1.56 per cent in the 6th year and 2.66 per cent in the 11th year taking into account diesel traction. A re-assessment of financial prospects of the project done in 1971 with the scaling down in June 1971 of the estimated iron ore traffic to 0.1 million tonnes per year disclosed that the return would be 1.5 per cent in the sixth year and 1.7 per cent in the 11th year.

Reasons for the slow progress of work.

1.11. (i) In August 1964 the Ministry of Railways became aware that the Port project had not been sanctioned and advised the South-

ern Railway in April 1967 to go slow with the railway project so as to synchronise its completion with the completion of the Port project. The administrative approval to the construction of the Port Project was accorded in June 1968.

(ii) According to the Railway Administration, the progress was hampered by the difficult geological features of the terrain and the heavy rainfall which limited the working season.

(iii) Contracts for tunnelling and bridge works were awarded as early as 1964-65 and the contractors were not able to carry on the works with the rates quoted earlier due to heavy escalation in the rates in the intervening period. This resulted in some of the contractors failing or abandoning the works. Extra expenditure, if any, on execution of these residual works subsequently is still to be assessed.

(iv) Again, according to the Railway Administration the allotment of funds during 1968-69 to 1974-75 for construction of new lines had been extremely limited leading to slowing down the tempo of works being executed departmentally and through contracts. Further, the reduced allotment during 1974-75 led to cancellation of orders for stores valued at Rs. 66.24 lakhs.

1.12. It would appear that the fact that the Port project had not been sanctioned was not taken into account while sanctioning the estimate of the rail project (October 1963 and November 1964) and starting execution of this Project (November 1963 and July 1965).

1.13. Delay in the execution of the work is partly responsible for the escalation of the cost of the project which is now estimated at Rs. 42 crores. Besides, during the period from January 1975 (when the Mangalore port was opened) to August 1975, 94 ships called at the port and 1.97 lakh tonnes of traffic (both exports and imports) were handled at the port, of which exports of iron ore and manganese ore accounted for 59,119 tonnes. If the rail link had been ready this ore traffic and a considerable portion of the other traffic as well could have been dealt with by the Railways thereby earning additional freight.

[Paragraph 14 of the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]

Construction of the Hassan-Mangalore Railway Line.

1.14. As stated by Audit, the development of Mangalore Port as an all weather major port and also the construction of a railway

line to link the port to the hinterland was approved in the Third Five Year Plan. In August 1963, the Railway Board was advised by the Ministry of Transport that the Mangalore harbour had been sanctioned and was likely to be completed within five or six years and that it was essential to go ahead with the construction, in the first instance, of a broad-gauge line between the existing Mangalore railhead and the new port site at Panambur to enable transportation of construction materials, including steel, plant and machinery etc. In October 1963, the Railway Board approved the construction of a dual gauge (broad gauge/metre gauge) connection from Mangalore station to the proposed port site (25.8 kms) as part of the Hassan-Mangalore project.

1.15 Explaining the primary object of taking up the Hassan-Mangalore Railway project, the Chairman, Railway Board, has stated during evidence:

“The primary object of this railway line can be said to be two-fold, one to give connection from hinterland to the Mangalore port and the other, development of the hinterland. Both purposes were involved in taking up this project.”

1.16. The circumstances leading to the sanction of the Hassan-Mangalore railway project had been explained by the Ministry of Railways in a note furnished to the Public Accounts Committee (1967-68), as follows:

“For the Third Plan, since the Ministry of Transport was keen on the development of Mangalore as major port, the Planning Commission approved of the construction of the railway line and the development of the Mangalore Port as one composite scheme. Also while giving their formal approval in September 1961, the Planning Commission had stated that since the Mangalore-Hassan line was needed for the development of Mangalore Port, this Ministry should consult the Ministry of Transport while drawing up the schedule of construction for the new line. Accordingly, the Ministry of Transport were contacted and in November 1961, we were advised that the port would be ready in about 6 years time from then. That Ministry desired that the line should be ready in about 4 years from then. The Planning Commission were accordingly approached for their approval for the

actual construction of the line. In March 1962, the Planning Commission advised the Ministry of Railways that the field work should be coordinated to the phasing of the port project. Final location survey for the line was therefore sanctioned on 21st April 1962. In August 1963, the Ministry of Transport indicated that they were going ahead with the port project with speed. They also wanted a BG link from the existing Mangalore Station to the new site of the port at Panambur for the movement of the construction materials to the port. This link was therefore sanctioned (as part of the Mangalore-Hassan line) on 24 October 1963. Construction of Mangalore-Hassan line proper was sanctioned on 2 November 1964, at an estimated cost of Rs. 23.74 crores. The line was taken up as an MG project as the hinterland is served by the existing MG net-work.

It will, therefore, be seen from the foregoing that though the line was found to be un-remunerative it was sanctioned mainly for providing a rail connection to Mangalore port which was being developed as a major port, and it has all along been emphasised that the link should be ready in time for the commissioning of the port, as desired by the Planning Commission.

Till August 1963 the indication given by the Ministry of Transport was that they were going ahead with the port project. But later it became known that the port project had not been sanctioned and hence the Southern Railway was advised to go slow with the Railway project and to synchronise its completion with the completion of the port project.

In a recent meeting the Cabinet have approved of the Mangalore port project. Hence, the Railway Administration has been advised to complete the work as early as possible keeping in view the progress of the project. The expenditure during the Third Plan on this link was Rs. 2.71 crores."

1.17. The factors and projections which justified the sanctioning of the construction of Hassan-Mangalore rail link are indicated in the following note furnished by the Ministry of Railways:

"The original assessment of traffic on the Mangalore-Hassan Railway is contained in the Traffic Survey Report pre-

pared in 1956. The particulars of passenger and goods traffic as assessed in the Report in the first year of opening of the line were as follows:

Originating passengers		Goods (in tons)					
Annual	Average daily	Inward		Outward		Total	
		Annual	Average daily	Annual	Average daily	Annual	Average daily
24,949	3,630	54,625	150	1,60,375	439	2,15,000	589

The train services proposed for moving this traffic were as under:

Passenger Services:

One pair of through trains between Mangalore and Hassan, 2 pairs of locals between Mangalore and Puttur and one pair of locals between Hassan and Sakleshpur.

Goods Services:

One train each way between Mangalore and Hassan.

From details available in the Survey Report it is seen that traffic in the down direction, i.e., from Hassan to Mangalore has been assessed at 1,29,450 tons against 85,550 tons in the up direction, i.e., from Mangalore towards Hassan. The average daily clearance required in the down direction i.e. in the load flowing direction, works out to 355 tons.

The main items of inward traffic are foodgrains and pulses amounting to about 37,000 tons and chemical manure amounting to about 13,000 tons. The outward traffic is made up primarily of timber amounting to 35,000 tons, firewood-charcoal and other forest produce amounting to 22,250 tons, tiles amounting to 23,000 tons and food-grains and pulses amounting to 15,000 tons."

1.18. From the information made available to the Committee, it is seen that there was a lot of correspondence exchanged between the Railway Administration and State Government of Karnataka in

Extracts from some of the correspondence are given below.

- (i) *Letter dated 18th January, 1962 from the Chief Minister of Mysore (Karnataka) to the Minister of Railways:*

At this stage it may not be necessary for me to stress the point that the speedy construction of Hassan-Mangalore Railway is a pre-requisite for the speedy development of Mangalore Port and the immediate future prosperity of the Mysore State. Recent pronouncement in Parliament and various newspaper reports gave me the impression that the final location survey might already have been commenced.

It has therefore come as a shock to myself and my Cabinet colleagues when the General Manager, Southern Railway recently informed us that the Railway Board had not issued any formal orders sanctioning the final location survey in respect of the Hassan-Mangalore Railway line. We were also given to understand that the final location survey in respect of the Bangalore-Salem railway line has been recently ordered by the Railway Board. I would, therefore request you to kindly ascertain as to whether there is any hitch in the issue of notification by the Railway Board directing the final location survey in respect of the Hassan-Mangalore railway line.

I take this opportunity to reiterate the opinion of myself and my colleagues in the Cabinet that the speedy construction of Hassan-Mangalore railway line is regarded much more important from the point of view of economic development of this State, than the construction of the Bangalore-Salem railway line. I might also add that in view of the pronouncements already made in Parliament and in view of the high percentage of literacy achieved in South Kanara and Hassan District through which the proposed railway line runs, any delay in commencement of construction in respect of Hassan-Mangalore railway may have grave adverse effects on the election prospects of candidates contesting elections from both these districts. May I, therefore, request you to kindly issue orders regarding the immediate commencement of the final location survey in respect of the Hassan-Mangalore railway line. If possible telephonic instructions may please be

communicated to the General Manager, Southern Railway, directing him to commence the final location survey without any loss of time."

(iii)
 (The Letter dated 26th July, 1968 from the Chief Minister of Mysore (Karnataka) to the Minister of Planning:

In yesterday's Hindu a news-item has appeared stating that the Planning Commission is having a review about the development of Mangalore Port. In this connection, I would like to state that the Mangalore Port and the construction of Hassan-Mangalore Railway line are part of the III Five Year Plan and the State Government as well as the local public were greatly concerned that the progress on those works were not at all satisfactory. Due to persistent demands, the two projects were taken up and they are now in the final stages of starting the works. So far as Mangalore Port is concerned, the Transport Ministry has appointed a Chief Engineer and further works concerned with it, like the acquisition of lands, construction of staff quarters are under way. It is therefore surprising that the Planning Commission should deem it fit to have a review of the Mangalore Project at this stage. Surely, the State Government expect that they would be consulted in such matters. I wish the report appeared is not correct.

Regarding the availability of iron ore to feed the Mangalore Port, the State Government have, on 16th July, 1963 addressed a letter to the Ministry of Transport and Communications (Transport Wing), wherein the iron ore deposits available for feeding Mangalore Port has been given. I enclose herewith a copy of the said letter, which will clearly indicate that roughly 710 million tons of high grade ore will be available for export. This calculation has been done on a modest scale and the actuals may even be more. In case you require any further information, I shall be glad to furnish the same on hearing from you.

As already stated above, this news-item has greatly agitated the minds of the local public as well as that of Government. I would be glad if the State Government are also kept informed of the developments taking place, before reviewing the projects as I feel that the State Government should be given an opportunity to place their views,

before the Central Government takes a final decision in such matters."

(iii) *Letter dated 16th July, 1964 from the Chief Minister of Mysore (Karnataka) to the Minister of Railways:*

"Very strange news has been received from Delhi that connecting of Mangalore Port by rail by constructing Hassan-Mangalore railway is going to be cold stored as also the development of the Port itself. If that is so, it would be the biggest disappointment to me and to the people of Mysore State. It would be a shock to the people and they would never excuse me, and you after all the Central Ministers' and Congress President's declarations that the Port would be taken up immediately and developed in to a major port and after they have also assured the people that on no account the construction of the railway would be delayed and that the alignment of the railway itself will be as a broad gauge, considering the volume of traffic that would be available in the immediate future. I have a strong feeling that some people are interested in seeing that some other port is developed at the cost of Mangalore and they are putting forth that Mangalore will have no iron ore to provide for export for a major port. I am emphatic that this is purposeful attempt to belittle the importance of Mangalore.

While our Department of Mines, which has been working since as many years as the Indian Bureau of Mines, has estimated the amount of ore to supply to Mangalore to be in the neighbourhood of 200 million tonnes and that too only on surface study, the Indian Bureau of Mines have been persistent in saying that it is ridiculously as low as 12 to 13 million tonnes. I do not know what basis they have for this unimaginably low figure. As advised by our Board of Mineral Development, it is in the neighbourhood of five to six hundred million tonnes of ore of fairly high quality above 58 to 60 per cent. The Indian Bureau of Mines having made merely a casual visit have put it down at 13 to 14 million tonnes. I think somebody or a group of people are at the bottom of all this wrong assessment. I for one would not tolerate such attempts by anybody whoever they may be to get active and belittle the natural resources we have, just with a view to help some body else. I have often demanded before this that

there may be joint inspection and study of the availability of ore in this area viz. Chitradurga District, Tumkur District and Chickmagalur District. They have never cared to do that and go on persisting in their attitude to belittle the quantity of our supply. I wish that no attempts will be made on the basis of this very wrong estimate by the Bureau of Mines either to delay the construction of Hassan-Mangalore railway or the Port of Mangalore."

(iv) *Letter dated 22nd April, 1967 from the Chief Minister of Mysore (Karnataka) addressed to the Prime Minister:*

"I am enclosing for your kind perusal and consideration a note which deals with the development of the Port of Mangalore and the expeditious construction of the Railway line between Hassan and Mangalore Port.

These matters have been hanging fire from many years and after the Central Government was convinced that these are good projects they have been sanctioned. The note will also tell you that the Port project is one of the very best projects taken up by the Government of India. It will also give information that if once the Harbour is developed the earnings of foreign exchange will go up by Rs. 25 crores per year. The Railway which is related to this will help the Harbour when completed considerably not only by exploiting the abundant and rich iron ore but also the rich forest wealth.

I am sure by now you have found out that instead of being enthusiastic and imaginative in approaching these and similar problems, there has always been a sort of a hesitancy and consequent delay in implementing them. People are getting tired of the delay which is continuing since many years. I am sure you will kindly also appreciate their feelings in the matter. Even in a case of this type if there is delay, the people will certainly be dissatisfied and feel frustrated. I am myself sharing these feelings.

May I submit to you that I attach the greatest importance to these Harbour and Railway Projects? Unless you take the necessary interest in the matter and drive home the necessity of implementing both the Harbour and Railway Projects. I am sure that there will be continued delay. If within two years necessary amounts are spent and the two undertakings completed and if we can get

Rs. 25 crores of foreign exchange, I do not know why there should be any hesitancy."

1.19. According to Audit paragraph, the new Mangalore Harbour Project was actually sanctioned in June 1968 and not in August 1963. Explaining the sequence of events, the Ministry of Transport have, in a note, stated:

"The development of Mangalore Port was included by the Planning Commission in the Third Plan. The decision to develop the Mangalore Port was communicated to the then Government of Mysore by the Planning Commission in a letter dated 10th July, 1961, which stated as follows:

'... We have included the Project for the development of Mangalore Port in the Third Five Year Plan. The amount required for the port during the Plan will be found from the provision for Major Ports'.

In pursuance of this, a preliminary project report was prepared by the Development Adviser in March 1963 and a Technical Advisory Committee was constituted to scrutinise the layout, designs etc. A Central Designs Organisation was also created for the preparation of the Master Plan and detailed design of the Project. A Chief Engineer and Administrator was appointed to undertake detailed site investigations, experimental dredging of the approach channel, land acquisition and construction of buildings and roads were sanctioned from time to time since 1961-62 with the concurrence of the Ministry of Finance and most of these works were completed by the end of September 1967. Till then an expenditure of Rs. 4.29 crores was incurred on the Project; Rs. 3.03 crores during the Third Plan period and the balance after April 1966.

Keeping in view the above developments, the Ministry of Transport informed the Railway Board in 1963 that Government's latest decision is not only to go ahead with the Mangalore Harbour Project but also to execute it with all speed. Thus even though formal sanction to the Project by the Cabinet was accorded in 1968, the Mangalore Port Project had been included in the Third Plan itself and work had commenced since 1961-62."

1.20. The Committee also enquired from the Ministry of Railways about the urgency in sanctioning the construction of the Railway

line in November 1964, particularly when they had become aware in August 1964 that the Port Project had not been formally sanctioned. The Committee further asked whether the sanctioning and execution of the project was not contrary to the Planning Commission's advice of March 1962 which had stipulated that the Railway field work should be coordinated with the phasing of the port project. In a note on the subject, the Ministry of Railways have stated:

"Although the main estimate for the Port Project had not been sanctioned by November 1964, when the Railways sanctioned the Railway Project, the Railways were aware that the work on the port was in progress since 1963. In fact by November 1963, the execution of a number of works costing Rs. 1.28 crores connected with the port were in progress against estimates sanctioned by Ministry of Transport. Further sub-works of the port were sanctioned and were in progress when the Railway project was sanctioned. Taking up of the Railway construction, therefore, was in keeping with the Planning Commission's directive of March 1962.

It may also be added that the Railway Project was sanctioned in November 1964, in consultation with the Ministry of Finance and Planning Commission."

1.21. The work on the construction of the metre gauge line proper from Hassan to Mangalore was commenced in July 1965 and was targeted for completion in a period of 8 years to synchronise with the opening of the new Mangalore port. The Hassan-Mangalore link is still under construction although the Harbour project which was actually sanctioned in June 1968 was completed and formally inaugurated and commissioned in January 1975. Explaining the reasons for not opening the rail link in time, the Chairman, Railway Board has stated during evidence:

"There were two factors. In 1973-74, and 1974-75, the allocation of funds was a little low, but in addition to that, we had also certain technical difficulties in the ghat section. Both these are responsible for the prolongation; and the completion is taking us upto 1978."

1.22. When asked whether the question of inadequate allocation of funds for the construction of rail link had been taken up with the appropriate authorities, the Chairman, Railway Board, has stated:

"It was not entirely due to the shortfall in funds in 1973-74 and 1974-75. This particular ghat section has a very

heavy rainfall, *i.e.* 180". The working period during a year is only 5 to 6 months. It is such a thickly wooded area that until the whole jungle was cleared and roads re-formed, it was very difficult to anticipate certain technical difficulties which arose."

1.23. The construction of the Hassan-Mangalore railway line had been primarily conceived as a necessity for the transportation of 2 million tonnes of iron ore which was expected to be exported through Mangalore Port. In March 1964, the Railway Board became aware that the volume of iron ore traffic will be no more than 0.5 million tonnes. The Committee enquired what were the considerations which prompted the Railway Board to sanction the project in November 1964, when it knew that it would be a burden on the railway revenues consequent on the reduction in traffic anticipations. The Chairman, Railway Board, has stated:

"When the traffic of iron ore was found to be 0.5 million tonnes, the line was sanctioned. It is true that the traffic came down to 0.5 million tonnes and the return was low, but it was a decision taken in consultation with the Finance Ministry at that time that this line should be built—even though the traffic of iron ore came down—for development purpose of the hinterland. It was felt by the Finance Ministry and the Railway Ministry that since the port was coming up and the hinterland had to be developed, the construction of the railway line was necessary as otherwise the hinterland would not develop. So, it was a positive decision though it was found to be uneconomical at that time and considered necessary for development purposes."

1.24. In a note on the subject subsequently furnished to the Committee, the Ministry of Railways have stated:

"Since a firm commitment had been made in the Parliament that this line would be constructed and the line was considered justified from the point of view of economic development of the region, it was decided to proceed with its construction in consultation with the Ministry of Finance."

1.25. It was in August 1964 that the Ministry of Railways sanctioned the construction of rail link as a metre gauge single line railway with broad gauge sub-structure for bridges and broad gauge profiles for tunnels. The project estimate was sanctioned in November 1964. As the Ministry of Railways had already become aware of the low volume of iron ore traffic to be handled, the Com-

mittee asked why the Railway Board to construct the line with broad gauge sub-structures. The Chairman, Railway Board, has explained:

“This expenditure in constructing sub-structures for bridges and broad gauge profiles for tunnels is about Rs. 3.3 crores. Now the broad-gauge structure has been done. When a metre-gauge line is built there in such a difficult terrain, if later on it would be converted into board-gauge, when it would be very difficult to alter the bridges and the tunnels. Because the traffic projection for this line was low, it was agreed that eventually we have got to increase the number of trains and there may be possibility of converting the line from Mangalore to Mysore into broad-gauge. Therefore, since the possibility of its being converted into broad-gauge was there it would have been difficult to convert the tunnels to broad-gauge at that time....”

He has added:

“For one thing, when we found that the traffic was not such as we had expected, we reduced the number of stations. Originally, we had planned for 20 crossing stations, but we reduced the number to 12. All those items which could be reduced have been reduced but we thought that the tunnel would have to be kept as broad-gauge because it would be difficult to change it later on.”

1.26. The project estimate of the Hassan-Mangalore rail link amounting to Rs. 23.73 crores sanctioned in November, 1964 was raised to Rs. 28.34 crores in October, 1970. In regard to the up-to date estimated cost of the project and the expected date of its completion, the Ministry of Railways have, in a note stated:

“Up-to-date estimated cost of the project is Rs. 42.41 crores. An expenditure of Rs. 33.08 crores has been incurred upto March, 1976. Rs. 4 crores have been allotted for expenditure during the current financial year. The project is targeted to be completed by December, 1978, and this would depend upon the availability of adequate funds in 1977-78 and 1978-79.”

1.27. The Committee asked whether the premature sanctioning of the project and its subsequent rescheduling was mainly responsible for escalation in costs. In a note, the Ministry of Railways stated:

“...The sanctioning of the project and the construction of the line was taken up and progressed along with the

construction of the port. In case the construction of the line had been taken up later, the cost of construction would have been higher as the prices had been rising steadily since 1964 when the project was sanctioned."

1.28. It is seen that out of the total estimated cost of the project of Rs. 42.41 crores, an expenditure of Rs. 33.08 crores had already been incurred. This implied that about Rs. 9 crores were yet to be spent. Against this the amount sanctioned in the current financial year was only Rs. 4 crores. Since more than Rs. 5 crores were still to be found, the Committee asked whether it would be possible for the Railways to complete the project by 1978. The Chairman, Railway Board, has stated:

"We are quite sure that we will get that amount in 1977-78, so that the work can be completed and the line opened fully in December 1978."

1.29. From the Railway Budget papers for the year 1977-78, it is seen that the latest estimated cost of the project was Rs. 42.36 crores and the approximate expenditure upto the end of 1976-77 was Rs. 37.60 crores. In the Budget estimates for 1977-78, a provision for Rs. 3 crores has been made. The Railways will thus have to find Rs. 1.76 crores more to complete the work in 1978.

1.30. Giving reasons for the escalation of cost of the project, the Chairman, Railway Board, has stated during evidence:—

"The price index in that area had gone up by 2½ times, whether it is steel or cement. The cost of labour has also gone up by 2½ times. The cost increase is one of the reasons. Secondly, the actual quantities have also increased. Particularly in the Ghat Section the conditions were very difficult."

Traffic Projections and financial appraisal.

1.31. The Railway Board have stated that the original assessment of traffic on Hassan-Mangalore railway was contained in the Traffic Survey Report which was prepared in 1956. But no traffic in iron ore was contemplated in this survey report. In 1963, however, it was indicated by the Ministry of Mines and Fuel that 2 million tonnes of iron ore could be expected to move over the line for export via Mangalore Harbour. In 1971 the projected ore traffic was scaled down to one lakh tonnes. A further reappraisal of traffic prospects was, therefore, done in 1971 taking into account the fact that a

Fertilizer Factory was to be set up at Mangalore. As per this re-appraisal, the anticipated traffic on the section in the Up and Down directions is as follows:

<i>Down Direction :</i>	<i>(Hassan to Mangalore)</i>
Ferrosilicon	50,000 tonnes
Forest produce	35,000 tonnes
Coffee	15,000 tonnes
Iron Ore	1,00,000 tonnes
Cement	50,000 tonnes
Miscellaneous	70,000 tonnes
	<hr/>
	3,20,000 tonnes
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<i>Up Direction :</i>	<i>(Mangalore to Hassan)</i>
Coal	75,000 tonnes
Salt	25,000 tonnes
Fertiliser	2,00,000 tonnes
P.O.L.	1,50,000 tonnes
Other commodities	63,000 tonnes
	<hr/>
	5,13,000 tonnes
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GRAND TOTAL	8,33,000 tonnes
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1.32. It has, however, been stated that the assessment of 1,50,000 tonnes POL traffic in the UP direction was made on the assumption that a refinery would be set in the Mangalore Harbour area. This anticipation was not likely to materialise and after leaving this traffic, therefore, traffic in the UP direction would work out to 3,63,000 tonnes. It has also been stated that no reassessment of the passenger traffic had been done.

1.33. The final location survey for a Metre Gauge line between Hassan and Mangalore was sanctioned in Board's letter No. 57/W4/CNL/S/4 dated 21-4-1962. The traffic appraisal made at the time

provided for movement of two million tons of iron ore from the areas as detailed below:

Area of Supply	Quantities likely to be moved for export from the area million tons annually)	Name of nearest rail-head connecting the mining area to the Mangalore Port
1. Chitaldrug	0.666	Chitaldrug
(a) Bheema-Samandra Bedarbomanhalli Mines		Hiliyuru
(b) Vajra-Nuliyur Mines		Sasalu
(c) Hiriyur/Hosadurga (Lakkihalli Mines)		Banasandra
2. Chicknayakanahalli	0.607	Banasandra
3. Khemmangundi	0.667	Tarikere
(a) Babaludan		Tarikere/
(b) Kalhatti		Birur
(c) Attigundi		
(d) Jensurigudda		
TOTAL	2.000 million tons annually	

1.34. The Committee learnt from Audit that the iron ore traffic of 2 million tonnes as indicated in the final location survey of Hassan--Mangalore railway line was based on the statement received from the Ministry of Mines and Fuel. In a note, the Department of Steel has explained:

"In response to an enquiry from the Ministry of Railways in January, 1963, the then Ministry of Mines and Fuel requested the STC, the canalising agency for exports of iron ore to furnish the projections for exports of iron ore through the proposed Mangalore port. STC in their reply, dated 12th March, 1963 indicated a likely iron ore traffic of 2.2 m.t. annually from the iron ore deposits located in Chitradurg-Chickanyana-halli and Kemmangudi areas and the STC's estimates were accordingly forwarded to the Ministry of Railways by then Ministry of Mines and Fuel. In the meantime, a reference had also been made by the Ministry of Mines and Fuel to the Indian Bureau of Mines for their independent assessment of the iron ore reserves in the hinterland and the production potential for exports through Mangalore. In response, the Bureau reported that the mineable reserves

which could be taken into account for this purpose were limited to 12.3 m.t. (over per cent Fe content) in the Chitradurga area... They also referred to reserves of 48 m.t. of 57 per cent to 60 per cent Fe ore in the Kammen-gudi area, but pointed out that since this area was already being exploited for the Bhadravati Steel Plant, those reserves need not be taken into account for export traffic projections to Mangalore. The Indian Bureau of Mines thus assessed the maximum exportable potential upto 1968 at only 0.65 m.t. per year; and that too subject to requisite incentives being provided to the private sector mine owners.

The Government of Mysore (Department of Mines & Geology), however, circulated a 'Note on the reserves of iron ore to feed the port of Mangalore' in which reserves of nearly 300 m.t. of high grade exploitable ore was indicated in the Bababudan area; in addition to 415 m.t. of medium grade ore (50—60 per cent Fe). The Government of Mysore stated that while 50 m.t. of the high grade ore could be ear-marked for the Bhadravati Steel plant, the remaining 250 m.t. of high grade ore could be developed for exports through Mangalore port. Additionally, 10 m.t. of reserves in Tumkur area and 50 m.t. in the Chitradurg-Hossdurga were also indicated.

In view of the wide disparity between the estimates of reserves indicated by the Government of Mysore, the Indian Bureau of Mines and the STC, the then Ministry of Mines & Fuel commissioned the Bureau to re-examine the reserves position. Based on the Bureau's reassessment and in view of the fact that an inter-Ministerial meeting had **been called by the Planning Commission** on 13 August, 1963, to discuss this matter the Ministry of Mines & Fuel furnished their comments on the reserves position to the Planning Commission, as follows:

(In million tonnes)

Area	Mysore Govt.'s Estimates		Comments of Ministry of Mines & Fuel
	Reserves	Mining potential through Mangalore	
Chitradurga	50	0.5	The total mineable reserves are estimated to be 12.3 m.t. with a grade of 65% Fe.

Area	Mysore Govts Estimates		Comments of Ministry of Mines & Fuel
	Reserves	Mining potential through Mangalore	
Tumkar . . .	10	0.5	The figures furnished by the Mysore Government lack proper foundation.
Chik-Magalur	250	0.5 raising to 1.0 p.a.	The reserves area estimated at 45 m.t. and excluding deposits earmarked for Bhadravati, 20 m.t. ore considered of exportable grade. Moreover, the quality of readily exploitable ore appears to be poor and it is doubtful whether economic mining could be taken up in this area in the near future.
Western Ghats . . .	70	0.1 raising to 0.5 p.a.	Grade of the ore is below 69% Fe and figure of 70 m.t. of exportable grade not based on realistic assessment.
Bellary-Hospet . . .	1000	0.5	Only after Indian Bureau of Mines has investigated the area, could realistic assessment be made.

The Indian Bureau of Mines had pointed out that the figures of reserves were based mainly on the study of surface exposures and examination of existing iron ore mines in the area and not on systematic drilling data. The Government of Mysore had also accepted that no work of assessment of reserves had been done by them and the estimates of reserves were based on assumptions regarding extensions of the body. Accordingly, the Ministry of Mines and Fuel instructed the Indian Bureau of Mines to take up joint field survey in consultation with the Mysore Government and based on the re-assessment completed in May 1964, the Indian Bureau of Mines *inter-alia* reported with regard to Chitradurg-Tumkur area that this ore body was of pocket type deposits and a reserve of 16 m.t. in the grade of 62-63 per cent Fe was accepted. In their assessment, the best reasonable level of production would be about 0.5 m.t. per annum for the whole sector.

It needs to be pointed out that estimates of ore reserves are usually made on the basis of available geological information. Where definitive information, as in this case, is

scanty, the estimates are necessarily based on certain assumptions and variations in the estimates made by different agencies are not uncommon. Moreover, even the estimates made by the same agency do undergo a change with additional field investigations and data which might become available subsequently."

1.35. In regard to ore deposits and reserves in the hinterland of the Mangalore port, a representative of the Department of Mines has stated in evidence:

"The then Ministry of Mines and Fuel were really concerned with the question of investigation of the deposits and reserves of the minerals, below the ground. We could not have given an estimate of the traffic. If it were precisely asked about its traffic, we could have possibly said only what was the nature of the exportable ore linked to a certain grade—i.e. ferrous contents in the ore. There was a difference of opinion between the State Government and the Indian Bureau of Mines about the estimated reserves for that area. The Indian Bureau of Mines thought that the estimated reserves were of the order of 12.3 million tonnes in 1963, in Chitradurga and Tumkur areas, while the State Government fixed the figure of ore at about 50+10=60 million tonnes."

He has added:

"This difference of opinion was brought to the notice because there was a correspondence by the State Government and letters to our Minister also. We asked the Indian Bureau of Mines to have a joint study conducted with the Geological Department of the State Government. That was done and in 1964, the following year, the Indian Bureau of Mines could only revise their estimate from 12.3 million tonnes to 16 million tonnes. . . . This is not the same figure as the State gave. We did not have the means to verify the traffic potential.

After that in 1964, on joint inspection, the figure of 16 million tonnes was arrived at for that particular area in Chitradurga and Tumkur districts. Then, we referred the matter for the opinion of Dr. West, an eminent geologist from the University of Sagar. The representative of the State Government as well as the Indian Bureau of Mines went to him and the whole matter was discussed with him. He gave a report in which he said that he agreed with the figures of the Indian Bureau of Mines.

Subsequently, there was some further investigation of the deposits and the figures were constantly updated. The relevant figure of 16 million tonnes has now become approximately 33 million tonnes today including lower grade ore."

1.36. A representative of the Department of Steel has stated in this connection as under:

"Here the question is that the State Government—as has been mentioned—had given an indication of reserves to the Railways as well as to the then Ministry of Mines and Fuel that the hinterland area of Hassan-Mangalore line and hinterland area of Mangalore port contains 300 million tonnes of directly exportable iron-ore. That has reference to hematite type of iron-ore as distinct from magnetite ore which has to be concentrated. This estimate of the State Government was not accepted by the Indian Bureau of Mines who made their own estimate of the reserves in the hinterland area. Their estimate is 12.3 million tonnes of hematite ore in the districts of Chitradurg and Tumkur which could be directly exported. On the other hand there was a reserve of 45 million tonnes of hematite in the Khemangundi area of Chikamgalur. Against this estimate of 45 million tonnes of the Bureau of Mines the State Government's estimate was 250 million tonnes... that explains the discrepancy between 300 million tonnes and 60 million tonnes. This is really the estimate of reserves."

The witness, however, has added:

"Of course reserves are relevant to the traffic projections but they are not the entire answer. Traffic projections are dependent on the marketability of that ore through the particular port being constructed. The traffic projections which were given at 0.5 million tonnes and later varied is really a matter handled by the Ministry of Commerce."

1.37. Speaking on behalf of the Ministry of Commerce, a representative of MMTC has stated in evidence:

"It has been stated here that 0.5 million tonnes of iron ore was expected to move through Mangalore Port. Now this estimate of 0.5 million tonnes was made as early as 1963 by what is called Joshi Committee. At that time it was indicated and it had been urged that the case of Mangalore as a major port was not dependent solely on the possibility of ore export to upgrade the port. At that point

of time it was indicated that half-a-million to one million tonnes would be the possibility of export. Subsequently, in June 1964, at the Secretaries Committee meeting, it was considered that it would be perhaps desirable to defer consideration of the Mangalore-Hassan line to decide whether the estimates of export of iron ore were definite, and this was subsequently followed by another meeting in the Planning Commission (24 October 1964) at which the following was indicated by the Ministry of Railways. I will now read out the relevant portion from the report of that meeting:

\ "The Board had sanctioned the construction of the metre-gauge line from Mangalore to Hassan. The Secretaries Committee had suggested that the work on the line might be held up pending a clear decision on the extent and quality of ore deposit available in the areas proposed to be serviced through the Port. A reference was made to the Finance Ministry who had expressed the view that even if sufficient quantity of iron ore was not available for export through Mangalore, the line could be justified from the point of view of economic development of the region and therefore should be proceeded with."

The witness has further clarified that:

"...at no point of time the Mangalore port was linked solely with the export of iron ore or the quantum thereof. It is true that 0.5 million tonnes was taken as the possibility of exportable iron ore through Mangalore Port. But when the question of the Mangalore port itself came up before the Cabinet in 1967, this figure again came up and at that point of time the MMTC had clarified that the possibility of export of iron ore through Mangalore port was not clear and possibly the tonnage would not be more than three to five lakhs."

1.38. Asked to state what was the anticipation of the Ministry of Commerce to that Mangalore port could be viable if not right-away to begin with but in a reasonable period of time. The witness has stated:

"...at no point of time the Hassan—Mangalore line or the Mangalore port were specifically linked with large-scale export of iron ore."

1.39. In regard to the projections of iron ore exports through the Mangalore Port, the Department of Steel have in a note stated:

“Export projections, however, are not solely dependent on estimate of reserves and are related also to the nature of facilities available at the port, the size of vessels which can be handled, the rate of loading etc. all of which affect the competitive positions of a particular port. So far as projections of iron ore exports made for Mangalore port are concerned (and these are relevant for the rail traffic projections on the Hassan—Mangalore line), the matter was referred to the MMTC, who are now the canalising agency for iron ore exports, and they have informed as follows:

The Joshi Committee in its ‘Note for the Cabinet’ dated 29-10-1963 on a programme of ‘Export of Iron Ore in the long run’ had indicated an estimate of 2 m.t. for export *via* Mangalore by 1970. The estimate, however, was not firm. What the Committee said was that they had come to conclusion that, at the most export of 2 m.t. of iron ore per annum could take place from this port.

Right through the deliberations concerning the development of Mangalore port, the likely export of iron ore through that port was estimated much lower. As early as July 1965, in their Review of the Iron Ore Export Programme, the Iron Ore Export (Project) Committee—an inter-Ministerial Group including the Railways set up by the Government to coordinate the various activities of the Iron Ore Export Programme—had pointed out that prospects of exports of ore *via* Mangalore were not very bright (para 107 of the review). The work on the construction of the Mangalore—Hassan metre gauge line commenced only in July 1965, thus at the time of commencement of construction itself, the Ministry of Railways know of the extremely limited iron ore export possibilities through the Mangalore port. Dealing with a ‘Draft Summary for the Cabinet’ prepared by the Ministry of Shipping and Transport in June 1967, which also touched on exports of iron ore *via* Mangalore port, the MMTC had come to the conclusion that not more than 3 to 5 lakh tonnes of hematite ore from South Mysore could be exported *via* Mangalore. According to the Ministry of Finance (Department of Expenditure) paper

on 'Mangalore Harbour Project' circulated along with the 'Summary for the Cabinet' prepared by the Ministry of Shipping and Transport in December 1967 the assessment of the Commerce Ministry so far has been that the volume of exports (of iron ore) through Mangalore upto 1972-73 is only 3 lakh tonnes.

At a meeting taken in the Planning Commission on 24 April 1971 where the representative of Railways was also present, the representative of the MMTC indicated that in future Mangalore port is not likely to handle any iron ore because it would be uneconomic to export iron ore through Mangalore as compared to other ports which were being developed with deep drafts and mechanical handling facilities. After discussion it was agreed that even if it was possible to utilise Mangalore port for export of ore from areas located in close vicinity of Mangalore port, it might not be realistic to assume iron ore traffic of more than one lakh tonnes through Mangalore."

1.40. The Committee desired to have the comments of the Ministry of Railways on the observations made by the representative of the MMTC. The Chairman, Railway Board, has stated in evidence:

"I mentioned that the construction of the Mangalore—Hassan line was an integrated scheme with the Mangalore port. So, the question was: why was the Mangalore port upgraded? Then what was our expectation of traffic on the Mangalore—Hassan line? As regards expectation of traffic on the Mangalore—Hassan line, I may submit that in 1958 there was a letter from the then STC authority—letter dated 3-9-1958—expecting two million tonnes of traffic. That was on 2-9-1958. Then, at an Inter-Ministerial meeting held on 21-9-1964 in the Railway Board, the MMTC had projected again a traffic of two million tonnes....But subsequently on 24-10-1964, at the meeting held in the Planning Commission, it was said that it would not be more than 0.5 million tonnes. But the reduction from the 0.5 million tonnes to a lower figure of 0.1 million tonnes came only in 1971."

1.41. In this context a representative of the Ministry of Transport has stated:

"The exportability of iron ore through a port not only depends on the availability of ore nearby, but depends upon the size of the vessels and the mechanisation that can be

achieved so that loading can be done at much faster rate and without making the ships wait for a long period. For a traffic of 0.5 million tonnes, it is uneconomic to have a very highly mechanised loading system. With the mechanised loading system already coming up in the country in the 5 major ports, requirement and the total quantum of iron ore export for the whole country having been fixed, it is automatic that reduced shipment from that port will take place. At the time of projections, it was found that when the minor port of Mangalore had loading through lighterage there was a traffic of about 3 lakh tonnes of ore. The ship was to stand outside at the sea, the iron ore was carried through lighterage to the ship. Based on this traffic of three lakh tonnes through old Mangalore port projection of 5 lakh tonnes was made through New Mangalore port. But since that time till date lot of changes have taken place and that is one of the reasons why this traffic has gone down. But in its place 7.5 million tonnes of iron ore ex-Kudremukh is going to accrue to this port. This is going to be one of the largest traffic which will be handled by this Port."

1.42. The Committee pointed out that the projected export of 7.5 million tonnes of iron ore from the Kudremukh area was a later development and had not been taken into account in the earlier planning. When the Committee observed that there appeared to be no planning in regard to export projections, the representative of the Ministry of Transport has stated:

"Even out of the total traffic of 30 lakh tonnes which was expected, iron ore was 5 lakh tonnes. There were so many commodities which were supposed to go from the Mangalore port. Though the Port was ready only in January 1975, last year we had handled three lakh tonnes of traffic. This year it is going to be five lakh tonnes. It will keep on picking up as the hinterland traffic comes up. For example, the fertiliser complex which is coming up, has added lot of traffic to the Port. Expectations at that time were that there would be approximately 11 lakh tonnes of traffic in fertilisers, raw materials and other things. We will expect that the possibility of that traffic is realised over a period of time. These traffic keep on changing. That is not bad planning. It is planning in relation to the changing circumstances and keeping our port occupied with different types of traffic than what was visualised-earlier."

1.43. The Committee asked what was the quantum of iron ore from Kudremukh which was expected to be exported through Mangalore Port during 5th and 6th Plan period and the quantum of this iron ore which was required to be moved *via* Hassan—Mangalore rail link. The Ministry of Shipping and Transport have, in a note, stated:

“As per the agreement entered into with the Government of Iran, the first shipment of iron ore concentrates from Kudremukh region is to move out to Iran only in September 1980. Hence the quantum of iron ore concentrates export from Kudremukh during V Plan is nil. The agreement further stipulates that the quantum of export of ore concentrates during first year of operation shall be 3.00 million tonnes and during second year 5.00 million tonnes and during third year and onwards 7.5 million tonnes per annum. A total traffic of export of iron ore concentrates from this port during the 6th Plan will be 19.88 million tonnes. Since the ore has to be transported in the slurry form through pipeline from the mining head to the Kudremukh region to this port and then converted into filter cakes, no portion of this ore will be moved *via* Hassan—Mangalore link.”

1.44. Giving the view point of the Ministry of Commerce in the matter of projections of iron ore exports, a representative of the Minerals and Metals Trading Corporation has stated in evidence:

“As far as the point made about Mangalore port is concerned, when it was considered by Government in 1963 the Kudremukh ore was also in mind. It was indicated at that time that we should not take more than 0.5 million tonnes for Mangalore and it was provided later on that keeping in view the bright prospects of Kudremukh etc., the Master Plan for the Port would be designed suitably to cater to large exports. It is not correct to say that Kudremukh was not kept in mind.”

1.45. The Ministry of Commerce (MMTC) had contended that the Hassan—Mangalore railway line had been sanctioned independently of the prospects of iron ore traffic on this line. In this connection the note sent by the Ministry of Commerce (MMTC) is very relevant:

“It may also be added here that the Mangalore—Hassan Railway line was sanctioned independently of the prospects of iron ore traffic on this line. Minutes of a meeting con-

vened by the Planning Commission way back in 24 October 1964, for a review of the progress of Mangalore Port Project refer in this connection. This meeting was attended by the representative of Railways also. The relevant portion of the minutes of the meeting reads, 'on behalf of the Railway Board, it was explained that the Board had sanctioned the construction of the metre gauge line from Mangalore to Hassan. The Secretaries' Committee, some time back had suggested that the work on line might be held up pending a clear decision on the extent and quality of iron ore deposits available in the areas proposed to be served through the port. A reference was made to the Ministry of Finance which had expressed the view that even if sufficient quantity of iron ore was not available for export through Mangalore, the line could be justified from the point of view of economic development of the region and, therefore, should be proceeded with. The Railway Board accordingly were going ahead with the construction of the line....' It would thus be very clear that the justification for the construction of the Mangalore—Hassan metre gauge line does not lie in the export potential of iron ore through that port but in other general considerations involving, *inter alia*, the economic development of the region."

1.46. During evidence also a representative of the Minerals and Metals Trading Corporation stated that "at no point of time the Hassan—Mangalore line or the Mangalore port was assumed for a large scale export of iron ore. Commenting on this observation, the Ministry of Railways have, in a note, stated:

"The Survey Report for Hassan—Mangalore railway line has assumed movement of 2 million tonnes of iron ore over the line for export through Mangalore. A meeting was held by the Additional Member (Works), Ministry of Railways on 20 January 1964 which was attended by representatives of Ministry of Steel and Mines and Heavy Engineering, Ministry of International Trade, Planning Commission and the MMTC in order to obtain their views on the iron ore traffic assumed in the survey report. The figure of 2 million tonnes of ore was confirmed on behalf of the Ministries in this meeting. The Railway Board, however, adopted the figure of 0.5 million tonnes while sanctioning the project in view of the discrepancy between the extent of ore reserves as indicated by the State Government and the Indian Bureau of Mines. The Planning Commission

also agreed with this reduced figure in a meeting held on 30-11-1966. Subsequently in the meeting held in the Planning Commission on 24-4-1971, the level of export traffic was further scaled down to 0.1 million tonnes per annum."

1.47. During evidence the Committee asked as to what was the expectation of traffic other than iron ore, which would be transported by the Hassan—Mangalore line. The Chairman, Railway Board stated that on the Railways' side, the projection of traffic that will move other than iron ore, on the Hassan—Mangalore railway line was only about 0.35 million tonnes in the 6th year after the opening of the line. In reply to a question whether any traffic had started moving on the rail link, the witness has stated:

"The Hassan—Mangalore line has not been opened up. It is not yet complete. We have opened the section from Hassan to Sakleshpur. Mangalore to Subramanya Road will be opened by the end of this year. A stretch of 30 miles which is in the ghat section would still remain. We hope to open it by December 1978."

1.48. The Committee desired to know about the forecast of the ore traffic that would be handled at Mangalore Port and how much of it had actually materialised. The Ministry of Shipping & Transport have, in a note, stated:

"The Ministry of Transport and Shipping appointed a committee in October 1967 to estimate the potential traffic to be handled at the new all weather port at Mangalore in 1971-72 and 1975-76. This committee consisted of Chief of Transport Division of the Planning Commission and... Secretary, P. W. D. of the Government of Mysore. The committee studied the present and future development in the hinterland of Mangalore in respect of mining industry, agriculture, forest, fisheries, transport, power etc.

Traffic Projections for 1971-72 and 1975-76 as projected by this committee are given below:

	(Lakh tonnes)	
	1971-72	1975-76
1. Hematite iron ore	5.00	5.00
2. Fertilisers and raw materials for fertiliser plants	11.88	12.14
3. Coal and Coke	0.75	0.75

	Lakh tonnes	
	1971-72	1975-76
4. Manganese ore	2.00	2.50
5. Ferro-Silicon and Ferro Chrome	0.50	1.60
6. Tiles	2.50	2.50
7. Salt	0.50	0.60
8. Cement	1.00	1.50
9. Petroleum products	1.75	2.7
10. Forest products	0.65	0.80
11. Foodgrains and pulses	0.50	..
12. Coffee	0.25	0.30
13. Fishery products	0.07	0.30
14. Other commodities	2.00	3.00
15. Bunkering	0.25	0.50
	29.60	34.24

During a review later at a meeting held on 24th April, 1971 in the Planning Commission, the anticipated traffic to be handled at the port was estimated as 13 to 14 lakh tonnes per annum. The record note of the meeting *inter alia* points out:

Shri... indicated that the traffic forecast for Mangalore Port had undergone changes at different stages. The traffic at the Port was originally estimated by two Member Committee in 1967 at 29.60 lakh tonnes for 1971-72 and 34.24 lakh tonnes for 1975-76. The Working Group of the Ministry of Shipping and Transport on the Fourth Plan estimated a traffic of 22.40 lakh tonnes for 1973-74. At the time of preparation of the Draft Fourth Plan the estimates of traffic at various ports were reviewed and the traffic at Mangalore port was taken as 20.30 lakh tonnes. The estimates were further reviewed in connection with finalisation of the Fourth Plan in March 1970 and the traffic adopted for the port was 13.50 lakh tonnes."

The actual materialisation of traffic at the Mangalore Port has been indicated by the Ministry of Shipping and Transport as under:

	1974-75	1975-76	1976-77
Ore	50,637 tonnes	73,828 tonnes	78,032 tonnes
General cargo	40,761 tonnes	2,64,938 tonnes	3,51,890 tonnes

The traffic projections for 1977-78 estimate the ore traffic to be handled by the new Mangalore Port at 1 lakh tonnes, while the traffic in general cargo is estimated to be of the order of 4 lakh tonnes.

1.49. The Ministry of Shipping and Transport have also stated in this connection:

“At present, the iron ore which arrives at the New Mangalore Port for shipment is from the mine heads at Kalasa in Chikmagalur district, Vajra and Habbigaigudda in Tumkur district, Lakkihali and Chitradurga district, and the manganese ore is from Joldhal in Shimoga district and Foregudda in Tumkur district. The above mining areas are situated about 165 to 200 miles from the New Mangalore Port. The ore is being transported by road as rail transport is not possible for the following reasons:

- (1) The New Mangalore Port is yet to be connected by metre gauge railway and all the mines mentioned above are situated in the areas now served by metre gauge. Unless Hassan-Mangalore metre gauge line is commissioned, economic transportation of ore to the New Mangalore Port by rail is not feasible.
- (2) Transportation of ore by broad gauge involves:
 - (i) Transportation of ore upto rail head by road;
 - (ii) Transportation upto Bangalore by metre gauge;
 - (iii) Transshipment at Bangalore into broad gauge; and
 - (iv) Movement by broad gauge Bangalore to Mangalore via Jolarpet and Olavakkot.

This would be a circuitous route involving transshipment and expensive multihandling. MMTC who are incharge of the

shipment of ores have indicated that the cost of movement by this route (round Rs. 92 per tonne) would be significantly more than the cost of road transport, which would be around Rs. 35 per tonne. If the Mangalore-Hassan metre gauge line is completed and opened to goods traffic, the cost of rail transport would go down substantially."

1.50. Referring to the statement of the MMTC to the effect that it would be uneconomical to export iron ore through Mangalore, the Committee asked how the Railway Board proposed to use the railway line to ensure that the investment being made would be better utilised and its maintenance would not throw a burden on Railway revenues. The Chairman, Railway Board, has stated:

"The iron ore expectations have come down further from 0.5 million tonnes to 0.1 million tonnes. So, the traffic on that line will be very, very light because our only expectations are 0.35 million tonnes of general goods and 0.1 million tonnes of iron ore, which is hardly any sizable traffic. But we hope that with some industries coming up and with some development taking place, the traffic of the hinterland will have to move on this Mangalore-Hassan line. We also hope that in spite of the expectation that the export of iron ore from Mangalore Port may not be economical, now with more high-grade iron ore being found in the hinterland, this question will be re-examined by the Ministry of Commerce."

1.51. The Committee desired to know as to how beneficial the expenditure on the railway line would be to the economy, particularly in view of the fact that traffic projections had not come through. The Chairman, Railway Board, has stated:

"With 0.1 million tonne iron ore traffic only, the return expected on this line is about 1.6 per cent. The purpose of sanctioning this line was two fold; one was to give connection to the Mangalore Port; second, to develop hinterland. As.....developmental activities have to take place, we hope that this line will be a catalyst to developmental activities and in course of time traffic will build up. In the meantime the Mangalore-Panambur line which was used as a side line is going to be opened to the public for public traffic from September; we are opening a goods shed and at normal freight-rates we are going to transport goods on that line."

1.52. The Committee asked what was the latest economic and financial appraisal of the Hassan-Mangalore rail link. In a note, the Ministry of Railways have stated:

"No traffic appraisal for the project was done after 1971. No traffic is expected by rail as far as the Kudremukh project is concerned. A traffic appraisal done earlier also does not take into account the export of Kudremukh iron ore."

1.53. The Chairman, Railway Board, has informed the Committee during evidence that the Hassan-Mangalore line would continue to be unremunerative line. In this context the Committee asked about the impact it would have on the port traffic. A representative of the Ministry of Shipping and Transport has stated:

"As far as the port traffic is concerned, in addition to the traffic which is carried by the railways, we have other traffic also. As I have mentioned already, in 1975-76, we had only 3.38 lakh tonnes of traffic and this year in the first 4 months we have only 1.42 lakhs traffic and we expect that it will go upto 5 lakh tonnes during this year. In addition, to the rail-borne traffic we have other traffic also, because we have very close to the port a very large fertiliser complex. They are receiving certain raw materials which are required for that particular project through our port and it goes straight into that area. Then, in addition, there are other traffics like coffee, cashew and marine products which originate in the very close proximity of the port and some of them may not move through railways. As I mentioned, there is an Official Committee which has been set up; it consists of the representatives of State Governments, Ministry of Shipping and Transport, Ministry of Railways and all the industries are represented on it. They meet and discuss as to ways and means for meeting the traffic through the port and on the railways. That particular Committee is seized of the situation. The last meeting of this Committee was held in October 1975 and they keep on meeting and discussing these issues."

1.54. In reply to a question whether it could be taken that the port did not rely on the railway line as an auxiliary factor, the representative of the Ministry of Shipping & Transport has stated:

"I do not wish to convey that impression. We are very much depending on Railways generating traffic from the entire

hinterland of Mangalore port because it extends over the entire State of Karnataka and a part of Kerala State even."

1.55. When the Committee pointed out that taking into account the projections for the future it could be said that Railways would not make a sizable contribution either because there was not enough traffic or there were other methods of locomotion, the representative of the Ministry of Shipping and Transport has stated:

"That is more or less correct."

1.56. The Ministry of Shipping and Transport had indicated that only 74,000 ore tonnes of iron ore had moved to the Mangalore Port in 1975-76 by road. Referring to this statement the Committee asked if that was an indication of the likely volume of the iron ore traffic to be moved by the rail link, will not this rail link involve recurring losses to the Railways. In a note, the Ministry of Railways have stated:

"When the project was sanctioned in 1964, it was expected that it would yield a return 1.17 per cent in the 6th year and 2.26 per cent in the 11th year of opening with steam traction and 1.56 per cent in the 6th year and 2.66 per cent in the 11th year with diesel traction. This was on the assumption that the line will carry 0.5 million tonne of iron ore traffic. A re-appraisal was made in 1971 and according to it the project was expected to yield a return of 1.50 per cent in the 6th year and 1.70 per cent in the 11th year on the assumption that the line will carry only 0.1 million tonne of traffic. The project, therefore, was not expected to yield sufficient return to cover the interest charges on the capital investment."

1.57. The Committee desired to know the projections of traffic to be handled at Mangalore Port in the Fifth and Sixth Plan periods, particularly with reference to the commodities which would be handled *via* Hassan-Mangalore railway line on completion and commissioning. The Ministry of Shipping and Transport have, in a note* stated:

"The traffic during 5th Five Year Plan has been estimated at 18.83 lakh tonnes based on the traffic already handled during 1974 to 1977 and also the projections for 1977-78 and 1978-79. Traffic to be handled *via* Hassan-Mangalore

railway on completion and commissioning during the 5th Plan period has been taken as 'nil' for projection purposes since the Hassan-Mangalore railway line is expected to be completed during 1979.

The firm projection of traffic for 6th plan is not yet available but it is estimated at 64.10 lakh tonnes (excluding the export of Iron Ore concentrates from Kudremukh). Out of the above, the quantum of traffic likely to be handled during the 6th Plan *via* Hassan-Mangalore Railway Line on completion and commissioning is estimated as 29.95 lakh tonnes.

In addition to the above projected traffic, 75 lakh tons of iron ore per annum will be shipped to Iran from Sept. 1980 under the Kudremukh Project. The Shipments will be for 20 years."

Development of Hinterland

1.58. Since it was pleaded that the Hassan-Mangalore railway line was also meant for the development of hinterland of Mangalore port, the Committee asked what developmental schemes had been undertaken. A representative of the Planning Commission has stated:

"I have no doubt absolutely in my mind that the hinterland development has been taken into account when the lines were sanctioned..... I would say that there were development schemes and also Government was sponsoring. Then there was also a question of development of the backward area of Sahyadri."

1.59. In the same context a representative of the Ministry of Shipping and Transport has stated:

"There is a fertiliser plant which has come up in Mangalore. There are also coffee exports and the Coffee Board has asked for warehousing space. We have given it to them. Then there are marine products, cashew and other activities. Nearly 2-3 vessels from Japan come there every month to pick up refer cargo. Then there is a proposal which is very remote at the moment that of setting up a thermal station in Mangalore which will give us traffic of 2 million tonnes of coal into this port. If the thermal station comes up, that is a great help. Then these are activities in connection with Kudremukh. Next year we expect to start importing machinery and other things. That will give us a traffic into this port."

1.60. The Committee desired to know the impact of the Hassan-Mangalore Rail link on the development of hinterland. The Ministry of Railways have, in a note, stated:

“Construction of Hassan-Mangalore line is yet to be completed and the impact of the construction of this line on the development of the hinterland of Mangalore port will be known after its commissioning.”

Mangalore-Panambur Link

1.61. According to the Audit paragraph, the work relating to the construction of Mangalore-Panambur link was undertaken in November 1963 by the Southern Railway on an urgency certificate in order to provide facilities for taking the materials and heavy machinery on this rail link for the construction of new harbour. It was considered indispensable for the transportation of approximately 2 million tonnes of stone for breakwaters, 50,000 tons of cement, 15,000 tons of steel and all plant and machineries required for construction, operation and maintenance. The Committee asked whether the work relating to construction of Mangalore-Panambur link was included in the original project of Hassan-Mangalore line or it was subsequently added. The Chairman, Railway Board, has stated in evidence:

“It was included in the original project itself. Although the port is called the Mangalore Port, it is at a place called Panambur which is about 23 km. away from Mangalore town itself. So, the line had to go to Panambur in any case because the port was there. The Panambur-Mangalore railway line was eventually a part of the Mangalore-Hassan project The Mangalore-Panambur portion was taken up first because it was expected that that will serve to carry construction material for breakwaters of the port. So, that work was taken up in 1963. The rest of the Mangalore-Hassan Project was sanctioned in 1964.”

He has added:

“When the project was prepared, it was purely for the Mangalore port and for developmental purposes. The construction material traffic was not taken into account. But the construction of the Mangalore-Panambur portion was taken up a little earlier, that is 1½ years earlier, so that it may be useful for carrying the construction material.”

1.62. The Committee enquired whether the role of the Railways in the transportation of the materials necessary for the port construction had been recognised before the Hassan-Mangalore Railway Project was conceived. The Chairman, Railway Board has stated:

“I would say, not before the Project was conceived because that traffic was not taken into account; but when the project started, this was envisaged. The Harbour authorities initially said they will have to move the stones on our line, but this was not part of the project as was originally conceived; it was thought of soon after the starting of the project.”

1.63. The Chairman, Railway Board, has further informed the Committee:

“In 1963, the decision was to start the siding, Mangalore-Panambur link, which was eventually to form part of the Hassan-Mangalore line, so that the materials for the port could be taken. The Transport Ministry wrote to us a letter that the work on the port was being commenced on a top priority basis, it would require so much of materials and boulders and that we might make a start on that small part which would eventually form part of Hassan-Mangalore line.”

1.64. Relevant extracts from the letter dated 27 August, 1963 by the Ministry of Transport to the Ministry of Railways are reproduced below:

“Government’s latest decision is not only to go ahead with the Mangalore Harbour Project but also to execute it with all speed. Sanctions are being issued for expenditure accordingly. It is necessary therefore that the construction of the Railway link should also be timed accordingly.

A rail connection from the existing Mangalore Station to Panambur must necessarily be an essential part of the railway programme. It will of course connect with the Hassan line when that line is ready. It will not be a siding but part of the Indian railway system. If, however, it is taken up forthwith as the first stage of the work, the line will greatly assist the construction of the Harbour Project. The State Railways will of course be entitled to charge for the carriage of the construction materials such as stones, cement, steel, machinery etc.

We shall therefore be glad if the construction of the Mangalore-Panambur line is taken up forthwith.

You need only provide the minimum facilities on the route at this stage. The marshalling yard and other facilities can come in due course. As regards the Curpur Bridge the Project Chief Engineer thinks that if work is entrusted in October, it could be completed by June 1964. The alignment of the line is shown in the enclosed sketch. It will be seen that the line passes through the heart of two of the most important stone quarries (the Kudupu Quarry and the Bondel Quarry) required for construction of the breakwater, groynes, berths and docks for the port. These two quarries alone are expected to yield stone in sufficient quantities to complete all items of the project. The quantity of stone to be transported will be approximately 2 million tons for breakwaters and groynes alone, nor to speak of large quantities of stone metal required for other items. Moreover, the line will be utilised for movement of about 50,000 tons of cement, 15000 tons of steel and all the plant and machineries required for construction, operation and maintenance. Transport of stone by rail will facilitate construction all the year round and round-the-clock on all working days. It is, therefore, necessary to start work immediately on the mixed gauge portion of the Railway Project between Mangalore Railway Station and Panambur.

1.65. The construction of the railway connection from Mangalore Station to Panambur commenced in November 1963. This link was completed by October 1972 at a cost of Rs. 2.6 crores. The Harbour authorities, however, did not use this line for transport of the materials and machinery required for the Harbour Project on the ground that the rail transport was uneconomical. The Committee asked whether, before undertaking the construction work relating to Mangalore-Panambur line, the Railway Board had worked out the cost of transportation of materials for port. The Chairman, Railway Board has stated:

"We did not take it up as an independent item. The Mangalore-Hassan line and the Mangalore Port development were an integrated project, and if the port was coming up, the Mangalore-Hassan line was also to be constructed. It was an integrated project. It was also a work which was in our works programme. Mangalore-Panambur line was a part of that project, it was not an independent line by itself. That was the view that was taken.

of the composite project and having to be there in any case, an independent financial appraisal was not done."

1.66. Asked if the Railways had given any indication to the Port authorities as to what would be the charges for transportation of the material the Chairman Railway Board has stated:

"The question of charges did not arise, the reason being that the Port authorities had thought that the only way for transporting those 6 to 7 tonnes weighing stones was by railway wagons. That was their planning. Therefore the question as to what would be the freight etc. was not raised."

1.67. The Committee pointed out that since the Mangalore-Panambur line had been constructed for the specific purpose of enabling the port authorities to carry the construction materials, the diversion of this traffic to road implied that the line had not fulfilled the purpose for which it was constructed. The Chairman, Railway Board, has stated:

"This was not a line purely for carrying the materials for construction. It was a part of the Mangalore-Hassan line. The Mangalore-Hassan line was sanctioned in 1964. Action on starting the Mangalore-Panambur line was taken one year earlier. It was an independent project in itself. An independent traffic or financial appraisal for this was not made since this was a part of the Mangalore-Hassan line. It is true that action on that line was taken a little in advance, because the Transport Ministry wanted for transportation of construction materials. But it was not an independent project."

1.68. Explaining the reasons why this rail link was not used by the Port authorities, the Chairman, Railway Board has stated in evidence:

"They had expected that about 1.5 million tonnes of stone would be required for their breakwater project. They also expected that these stones would be very big and heavy. The stones were originally designed to be 5-6 tonnes each, huge boulders. Subsequently, it appears that the breakwater design was changed because the port itself was pushed inland. Instead of the breakwaters going deep into the sea, it appears, they stretched into the inland, thereby reducing the height of the breakwater construction and they finally went in for smaller stones. When they had originally told

us in 1965-66 that they would want this line for carrying stones, the idea, perhaps was to take big stones. Later on when they reduced the size of the stones and also the quantity, they felt that the rate which was quoted by us—we had quoted a particular rate—was not so much advantageous to them as the rate that they got from the road transport people. In these circumstances, it appears they went in for road transport.”

1.69. During evidence, the Committee asked as to why the construction of the railway line from Mangalore to Panambur, which had been undertaken on an urgency certificate in 1963, took 9 years to complete. The Chairman, Railway Board, has stated that the construction was almost ready in 1969 but there was nothing to move on that line. He added:

“Urgency certificate means that it should be done within one or two years. What happened was that the purpose for which this line was intended was also going slow. Therefore the progress every year was slow.”

1.70. Asked if the construction of the railway line had to be adjusted in the context of the slow and uncertain progress made in the construction of the port, a representative of the Ministry of Shipping and Transport has stated:

“A distinction has to be made here between the transport of the construction material that happened to be incidental and the traffic this railway line was supposed to carry. It has been brought out that this permanent traffic was originally taken into account when the total project was sanctioned. Subsequently, it was considered that as the railway line was running close to the quarry, this could also be used, during the construction period to carry the stone traffic. The project including the breakwaters was sanctioned only in 1968. As soon as this was sanctioned, we wanted to undertake the work of the construction of the breakwaters. At that stage we had correspondence with the railways to know as to what it will cost us to carry that particular traffic from the quarries to the breakwaters . . . It was intimated to the Railways that it would not be possible to allow the railway wagons on the top of the breakwaters which were projecting into the sea . . . Wagons have to be first unloaded and the boulders loaded into the dumpers and then put into the breakwaters. It also involved laying a siding to the breakwaters. The Railways intimated to us that the charges for that siding from the port to the

breakwaters will also have to be borne by the port authorities and when all the charges were taken into account, we found that the total cost of transportation of these boulders from the quarry to the point where they were to be placed in the breakwaters through railways was more expensive than if it was to be done by road."

1.71. It has been stated that the boulder traffic for the construction of breakwaters did not materialise due to a change in the design from deep breakwaters requiring huge boulders to shorter breakwaters requiring smaller size stones for the movement of which road transport was cheaper. As a result of the change the quantum of traffic of stones got reduced to 0.35 million tonnes against 1.5 million tonnes estimated earlier. The Committee desired to know the reasons for this drastic alteration in the design. A representative of the Ministry of Shipping and Transport explained that the breakwaters were originally intended to go to a depth of minus 6 metres into the sea. Subsequently some experimental dredging was carried out and after some model studies carried out in the Central Water and Power Research station, Poona, it was felt that there was no need to carry the breakwaters to that depth. When the Committee asked whether this indicated that earlier there had been inadequate analysis in the Central Water and Power Research Station, the representative of the Ministry of Shipping and Transport has stated:

"I do not think it will be correct to say that it was inadequate. As more data became available and as more studies were carried out, we felt that we could reduce the cost by reducing the length of the breakwaters and the model studies showed that that reduction was possible. As a result we reduced the length of the breakwaters. Instead of going down to minus 6.0 metres we went upto minus 3.66 metres.

The second point which came up was that when more investigations were carried out about the bearing capacity of that soil, we found that we would not be able to put these very heavy stones there as they would cause instability and also we will not be able to lay the railway line on the top of the breakwaters. As a result of this, the size of the stone was reduced. The shape of the breakwater was completely changed. Instead of having less wide and high breakwater, it was revised to a section with a very large base and berms on either side using smaller size stones. The quantity of stones thus came down. The size also came down. When an analysis of actual rates was made we found that it would be economical to carry stones by road.

We, therefore, informed the Railways that we would not be utilising this service.”

1.72. The Committee desired to know whether the facts about the change in design of breakwaters and consequent reduction in traffic of stones and boulders were intimated to the Railway Authorities by the Ministry of Shipping and Transport and if so, when. The Committee also enquired about the extent of progress of the Mangalore-Panambur rail link in physical and financial terms at that time. In a note, the Ministry of Railways have stated:

“Ministry of Transport did not advise Railways about the change in design and subsequent reduction in traffic for the port link. It was only in January 1969 that they told the Railways that they did not want to use the railway siding for the movement of stones and had decided to move them by road as the latter alternative was cheaper for them. By that time, the physical and financial progress on the rail link was about 75 per cent. (The estimated cost of the Port link is Rs. 238 lakhs).”

1.73. In reply to a question whether the advice given by the Ministry of Shipping and Transport for constructing Mangalore-Panambur link prematurely had not put the Railways to losses, the Chairman, Railway Board has stated:

“The only thing that had happened in the case of Mangalore Panambur is that we would not have started this line one year in advance if we knew that the stones were not required to be transported. We have lost that one year’s period.”

1.74. In the same context, the Chairman, Railway Board has added:

“The Railway Administration had quoted a rate for the transportation of these stones, which was just to cover the working expenses without any element of profit—because the engine had to go from Mangalore to the site. As the quarry was not anywhere near the station, the engine and the wagons had to go from Mangalore station to the site, the stones had to be loaded into the wagons and then the engine and the wagons had to come back. Therefore, there was no loss as such because the rate quoted was such as would only cover our own expenses.

The Port authorities gave various reasons. . . . One reason they gave was technical difficulties and the other reason given was that it would be more economical to move them by

road and that, therefore, the matter should be closed. But I must make it clear that our quotation was only for covering our costs and we were not to make any profit from it. So, there was no real loss on this account."

1.75. The Ministry of Shipping and Transport examined the relative economies of rail and road transport of materials for the port project only in 1967. The Committee asked why did the Ministry of Shipping and Transport impress on the Railway Ministry in 1963 to undertake the work relating to the line between Mangalore and Panambur without having studied the relevant economics of the rail and road transport. In a note, the Ministry of Shipping and Transport have stated:

"The Ministry of Transport requested the Railway Ministry in 1963 to take up the work on Mangalore-Panambur portion of the project. Mangalore-Hassan, as a first stage work, as it would assist the movement of construction material for the Port project. At that stage in 1963, the requirement of boulders for breakwaters and groynes was estimated to be about 2 million tonnes and it was felt that the railway facilities for the transportation of the stones from the quarries to the breakwater site would be necessary to complete the project by the target date of 1967. Considering the quantum of work involved and the target date of completion of port project, it was felt that this work could not be tackled by road transport alone. Hence working out relative economics of rail and road transport would not have been relevant."

1.76. The Committee pointed out that as the transportation of stones for the breakwaters by rail was considered indispensable, the decision to move the smaller size stones by road transport should have been taken in consultation with the Railway Board, who had made all-out efforts to have the line ready for use by the harbour authorities. In a note on the subject furnished by the Ministry of Shipping and Transport, it has been stated:

"The Railway had informed the Harbour Project authorities in the year 1967 *vide* their letter No. C. 499/W dated the 27 June, 1967 from the General Manager, Southern Railway, Madras that the Railways would consider the completion of the Mangalore-Panambur line only subject to the Project authorities agreeing to pay the charge upto a tune of Rs. 19.00 lakhs being the interest on the capital outlay and land rent based on the market value and subject to

fulfilment of some more conditions stipulated by them. This offer was examined by the Project authorities and was found to be uneconomical since transportation by road worked out far cheaper. This was communicated to the concerned Railway authorities *vide* d.o. letter No. RCT-94/67-B1 dated 19th December, 1967 addressed to Shri K. J. Chandy, Chief Commercial Superintendent, Southern Railway, by Shri P. V. Rajagopal, Chief Engineer and Administrator, Mangalore Harbour Project.

However, as the matter was pursued further by the Railways and after protracted deliberations in the matter, the Railways offered on 26th October, 1968 a rate of Rs. 5 per tonne for transportation of boulders by rail from the point near the quarry face upto the point near the breakwaters of the Harbour project and wanted that the additional cost for laying the required rail tracks in the harbour area as also the sidings at the quarries and breakwaters should be borne by the project authorities. The relative cost analysis of transport by rail and road worked out on the above basis revealed that the rate for rail transport was not economical for the rail transport was estimated to cost Rs. 14.52 per tonne as against Rs. 11.36 per tonne by road. This was communicated to the Railways during November, 1968 *vide* letter No. RCP-94/68-B1 dated the 16th November, 1968 from the Chief Engineer and Administrator, Mangalore Harbour Project, addressed to the Chief Commercial Superintendent, Southern Railway, Madras.

In spite of the above, the Railways still continued to press the Project authorities for reconsidering the possibility of resorting to rail transport. This was further examined and then the Railway authorities were categorically informed during 1969 that the question of rail transport could be dropped since rail transport was neither economical nor practicable *vide* d.o. letter No. RCP-94/69-B1 dated the 1st April, 1969.

In this connection, it could be mentioned that though the work on the railway link upto Panambur was completed by October 1972, further railway works through the marshalling yard and beyond were completed only during 1975 whereas the work of the breakwaters was completed by the end of 1970. Further at no time had the Project Administration or the Ministry accepted their offer of rail transport for the terms and conditions stipulated by them were not economical and the time schedule pursued by them did

not suit the needs of the Port Project and the movement of train over the breakwaters was not feasible.”

1.77. It is seen that the Ministry of Railways were informed in 1969 that the port authorities would not use the railway sidings for movement of stones/boulders as the road transport was considered cheaper. The Committee enquired whether the Railway Board had taken up the matter with the Ministry of Shipping and Transport, at whose instance the siding was provided and if so, at what level as this adversely affected the return on investment made by the Railway Ministry. The Chairman, Railway Board has stated during evidence:

“The Chairman, Railway Board, took up the matter with the Secretary of the Transport Ministry. He gave various reasons why the rail facilities could not be utilised. Subsequently the matter was dropped. Railways could not press the matter further. They said Railway wagons could not go on the breakwaters, they could not take the weight of the wagons.”

1.78. Extracts from a letter dated July 29, 1969 issued by the Chairman, Railway Board to the Secretary, Ministry of Transport are produced below:

“It may be recalled that the construction of the Mangalore-Panambur BG link was taken up by the Railways at an approximate cost of Rs. 3 crores ahead of the completion of the main project of Hassan-Mangalore line. This was done at the specific request of the Ministry of Transport and the Chief Engineer and Administrator, Mangalore Harbour Project as would be seen from the correspondence with the Railways and discussions at the Technical Advisory Committee meetings. The main consideration for expediting construction of the link ahead of the main project was to enable the Port authorities to transport their construction materials to the Harbour site including 15 lakh tonnes of boulders. To facilitate direct unloading from the wagons it was suggested during discussions to construct spur lines over the breakwaters. The formation level was proposed to be kept just above the high tide level. No technical objections were raised to the suggestion at that time. It is, therefore, unfair on the part of the project authorities to go into minute economics and try to prove that carrying boulders by road would be slightly cheaper. In the background of the expenditure that the Railways have been made to incur at the Port's request, it is unfortunate that they now contend that the construction of the breakwaters will not admit of laying of rail track or that

the port contractors are at liberty to choose the mode of transport.

Initially, it was proposed by the Railway to work the Mangalore-Panambur line as a private siding as no other traffic was expected on this line until completion of the main project. However, on representation from the Project authorities that the movement on these terms and conditions would be uneconomical as compared to the movement by road, it was decided to treat this line as a part of the main line and recover only the normal freight charges. In order to accommodate the claim made by the Project authorities that road movement would still be cheaper a further concession of 25 per cent in the normal freight was offered. The Railway went a step further to offer 'rock spoils' collected during the construction of the line at a concessional rate to the Project authorities so as to bring down the cost of construction. It is, however, seen that after having induced the Railway to construct the line at a heavy cost ahead of the main project, the Project authorities have objected to rail transport on one pretext or the other and have unilaterally decided to bar any further discussions by treating the matter as closed.

I am sure you will agree that the present stalemate will lead to obvious financial complications. As a very rigid attitude has been adopted by the project authorities, I shall be grateful if you could use your good offices in this matter and instruct the project authorities to agree to rail movement of the balance boulders and other construction materials. Some deposit for carrying out work within the Harbour area would be necessary and the details can be sorted out with the Southern Railway authorities. I am advising the Southern Railway to keep the cost of such works to the bare minimum and extend their cooperation in finalising this issue."

Rail Road Coordination

1.79. The Audit paragraph brings out that in order to facilitate the transport of iron ore, the State Government of Karnataka had between 1961 and 1969 developed several roads including Hassan-Mangalore road. The Hassan-Mangalore road had been completed by March 1969 at a cost of Rs. 3.54 crores. The Committee enquired whether, before the sanctioning of the Hassan-Mangalore Railway line, the Railway Board were aware of the road development works

connected with export of iron ore, which had been undertaken in Karnataka. The Chairman, Railway Board has stated in evidence:

“Yes, Sir. The Railway Board was aware that the road there was being widened so that the iron ore transport could be handled till the railway line came. But at that point of time, just one lakh tonnes of iron ore were to be carried on that route. If the traffic was to go up to 0.5 million tonnes, the road could not carry that. That was the first consideration. The second consideration was that an understanding was given that the moment the railway line was completed, the iron ore traffic would not take place on road and the whole traffic would come to the Railways.”

1.80. In regard to the road development works undertaken in Karnataka for the transportation of iron ore, the Director General (Roads) has stated:

“It was in 1959 that for the first time on the proposal made by the State Government, some sanctions were given for grants-in-aid by the Government of India for the improvement of the Hassan-Mangalore road and also the Basandra-Hassan road. These two together give access to the mining area from the port. Originally the Government of India approved a grant-in-aid of Rs. 44.76 lakhs for a single lane road. Later on, this figure was raised to Rs. 76 lakhs for a double lane road, on the basis of 50 per cent of the cost which was then assessed by the State Government at Rs. 158 lakhs.”

1.81. When the Committee pointed out that the grants-in-aid given by the Central Government were for a road which was a rival to the Railways, the witness stated:

“The road came in first. I would not say it was a rival to the railways.”

He has added:

“The road requirements were projected by the mining interests and the State Government as far back as 1959. Some kind of a road was existing, but they wanted a proper access to the port from the hinterland. That is how these proposals were made. In fact, further developments took place and in 1972 in the Fourth Plan this road from Mangalore to Hassan was extended further upto Bangalore and it was proposed by the State Government

for declaration as a national highway. After due assessment of the potential of this road, this was declared as a national highway on 3-8-1972. The requirement of this road as part of the overall development of road communication in the country was fully recognised.

1.82. When further asked whether there was any attempt to co-ordinate rail-road development in this area, the Director General (Roads) has stated:

“After clearance from the Planning Commission and Finance Ministry, before we issue the regular notification declaring a road as national highway, we do consult the Railways and Defence. In this case also, consultation was held and clearance was taken.”

He has further added:

“Before we declare a road as a national highway, we also go into the requirements and potential expectations of road traffic and also the existing facilities of Railway network in that area.”

1.83. It is seen that the Railway Board was advised by the Ministry of Shipping and Transport in August 1963 that the Mangalore Harbour Project had been sanctioned. In October 1963, the Railway Board approved the construction of a dual gauge connection from Mangalore Station to the proposed port site as part of the Hassan-Mangalore project. This work was sanctioned on the basis of an urgency certificate and the work actually commenced in November 1963. Since the Railways were aware of the road development works that had taken place in the area, the Committee desired to know whether there were any special reasons which prompted the Railways to take an exceptionally quick decision for commencing work on rail connection. To this, the Chairman, Railway Board has stated:

“It was sanctioned for developmental purposes. When I said that the line was sanctioned for developmental purposes, what I meant was that at Hassan that was joining with the metre-gauge system of the Mysore State, i.e., the Mangalore Port line would have connected at Hassan and then in Mysore State, to Bangalore and then on that side, from Hassan to Bhadravati and Hubli. So, it was becoming a whole net-work. But in our Railway practice, whenever we take any new construction, we look into the financial aspect of that line. It was with the firm knowledge that in the first few years it would not be remunerative line, that we sanctioned this line.”

1.84. During evidence the Committee asked whether there were certain vested interests in Karnataka State who wanted the automobile industry to be very largely in the picture in so far as transportation of iron ore to Mangalore port was concerned. The Chairman, Railway Board has stated:

“I have no clear idea.”

1.85. The Committee desired to know the details of the consultations, if any, held between the Planning Commission and Central Ministries and the State Government of Mysore before the integrated project of Mangalore Port and Hassan-Mangalore Rail line was finalised. In a note furnished to the Committee, the Planning Commission have, *inter alia*, stated:

“In 1959, the Intermediate Ports Committee which had been set up by the Ministry of Shipping and Transport, after examination of the traffic potential as then estimated recommended the development of a deep sea port at Mangalore with one iron ore berth and 2 general cargo berths at an estimated cost of Rs. 12.7 crores. The Committee was composed of the representatives of the Ministry of Transport, Ministry of Commerce and Industry, Planning Commission, Railway Board, different Port Trusts and State Government concerned including Mysore State. Having regard to the recommendations of this Committee, the Mangalore Port Project was included in the Third Five Year Plan.

On 31-3-1964, the then Member in-Charge of Transport in the Planning Commission, Shri Tarlok Singh, sent a note on the Mangalore Project to the then Minister of Transport which, *inter alia*, mentioned that decisions regarding the Mangalore Harbour Project had to be taken viewing the project as a whole. The note mentioned that the Ministry of Railways had completed their investigations of the Hassan-Mangalore Line and the link between Mangalore and the port site on certain definite promises. The iron ore deposits on which the port would draw had not yet been clearly established and costs of transport by road and mining costs had yet to be studied systematically. The economic projections on the basis of which the project was approved were several years old and had to be brought up to date. The note went on to state that the project required more coordination, dovetailing of different technical and economic aspects, clear determination

of the scope and systematic follow-up so that various operations proceeded in step.

A meeting was taken by Shri Tarlok Singh, Member, Planning Commission on 24-10-1964 to review the progress on the Mangalore Project. At this meeting, representatives of the Ministry of Shipping and Transport, Railway, MMTC, Ministry of Commerce, Finance and Mines and Metals were present. At this meeting, the Planning Commission again emphasised that the phasing of the various components of the Mangalore Port Project should be integrated and the progress on the project made as a whole so that maximum possible return on the project could be realised. It was necessary to get agreed estimates of available deposits of iron ore in the areas to be served through Mangalore Port and the necessary investigations had to be expedited. The present planning had to be based on the estimates by the Indian Bureau of Mines. As regards the development of the port, the exact scope of the works involved, namely, the number of berths, type of equipment etc., should be considered in relation to the estimated traffic likely to be handled at the port. The phasing of the railway line should be in step with the phasing of the work on the port."

1.86. It is seen from the Audit paragraph that contracts for tunneling and bridge works were awarded as early as in 1964-65 and contractors were not able to carry on the works with the rates quoted earlier due to heavy escalation in the rates in the intervening period. This resulted in some of the contractors failing or abandoning the works. The Committee desired to know whether the amount of extra expenditure on execution of work left over by the contractors had been assessed. In a note furnished to the Committee, the Ministry of Railways have stated:

"It will be possible to make an assessment of the extra expenditure only after the work is completed and the amount payable to the new contractors is known and also since contracts for some left over works are yet to be awarded."

1.87. The Chairman, Railway Board has stated during evidence:

"The contractors could not complete the work because of technical difficulties and escalation of costs that had taken place. We have settled all the matters in all the reaches, except four and even for these four we hope to settle on new agencies in the course of a month and then a clear

picture will emerge. It is premature to hazard a figure now; approximately it will be about Rs. 2 crores. Technical difficulties arose because the rock formations were found to be highly fissured and fragmented and it required complete lining in all the tunnels; we have had heavy rock falls; there was a case of a 100 tonne boulder which came down from the heights and the tunnel walls were broken.

Normally, again, when we meet with rock at the top, we expect that the rock will continue to the very bottom and in this case there were cases where below the hard rock there was a sort of a flowing soil and it caused heavy slippages. These were the difficulties which were encountered."

He has added:

"These contracts were entered into as early as 1966. In 1968 the cost escalation had been substantial. There was no item in the contract for escalation of cost. But we tried, the administration tried, to get such work done from these people at the old rates. But the stage came when due to reasons beyond their control, they could not complete the works covered in the agreement. These are the complications that arose and all these problems have been solved except in respect of four reaches for which arrangements will be settled in the course of the next few months."

1.88. In another note, the Ministry of Railways have stated:

"Regarding the settlement of dues with the contractors in all cases where termination was done at the risk and cost of contractors, action was initiated by the Administration to recover the extra expenditure incurred for completing the works left over by the defaulting contractors and covered by their agreements. In all the cases except Reach IX of ghat section and Reach V and VI of Plateau section, the contractors took the matter to the court, challenging their liability for the balance work and for directing the Administration to refer their claims to Arbitration. In some cases arbitration had been refused by the department. It is seen that in all the cases so far disposed of by the court the railway was directed to appoint arbitrators and where arbitrators have passed awards,

the defaulting contractors have not been held liable for the balance work left by them. The arbitrators are also disposed to consider compensation for part of the work done by them. So far it has not been possible for the department to realise the extra expenditure incurred in carrying out the left over works by other means, by effectively enforcing the risk action."

1.89. The Committee asked whether the work left over by the previous contractors was again awarded to the same contractors. The Chairman, Railway Board has stated:

"A technical committee was appointed consisting of two Chief Engineers and two Financial Advisers. They went into the whole question and where they considered that the failure was not due to contractors' fault and where they thought that the contractor had necessary wherewithal to do the balance work, negotiations were entered with them, but where it was thought that the person could not do the balance work, then some other agency would be asked to do that."

1.90. The work on the construction of the metre gauge line from Hassan to Mangalore was commenced as early as July 1965 and was targeted for completion in a period of eight years to synchronise with the opening of the new Mangalore Port. It is a matter of great concern that the project which was launched as an adjunct to the Mangalore Port Project—since the Railway line was intended to serve the port—has not even now been completed after a lapse of 12 years. The Committee have been informed in July 1977 that the plateau and plain sections were opened for passenger traffic with effect from May 1976 and February 1977 respectively and the overall progress of work in the remaining ghat section was 78 per cent. The Chairman, Railway Board informed the Committee during evidence that if the funds allocated for this project during the years 1976-77 and 1977-78 were adequate, the line was expected to be completed by the end of 1978. The Committee regret this unconscionable delay in completing the work.

1.91. The project estimate amounting to Rs. 23.73 crores for the construction of the Hassan-Mangalore line was sanctioned in November 1964. With the passage of time as the costs escalated the estimates were revised upwards. In October 1970 the estimated cost of the project was raised to Rs. 28.34 crores and according to 1977-78 Budget, it has gone up to Rs. 42.36 crores.

1.92. The Railway Board have stated that the original assessment of traffic on Hassan-Mangalore Railway was contained in the Traffic Survey Report which was prepared in 1956. This Survey Report assessed the total goods traffic of 2,15,000 tonnes which would be moved in the first year of the opening of the line between Hassan and Mangalore and for the movement of this traffic one goods train eachway was proposed to be run. Besides, one pair of through passenger trains between Mangalore and Hassan, 2 pairs of locals between Mangalore and Puttur and one pair of locals between Hassan and Sakleshpur were proposed to be run to cater for the originating passenger traffic. No traffic in iron ore was contemplated in this survey report. In September 1961 the Planning Commission approved of the construction of the Hassan-Mangalore railway line and the development of the Mangalore Port as one composite scheme and in March 1962, the Planning Commission advised the Ministry of Railways that the field work should be coordinated with the phasing of the port project. Final location survey for the line was sanctioned on 21 April 1962 and completed in December 1963/Jan. 1964. The traffic appraisal made at the time provided for movement of 2 million tonnes of iron ore. The Committee were informed that the iron ore traffic of 2 million tonnes as indicated in the final location survey of Hassan-Mangalore railway/line was based on the projections of ore traffic through the proposed Mangalore port. These projections had been forwarded to the Ministry of Railways in 1963 by the then Ministry of Mines and Fuel, who had been given this indication by the State Trading Corporation. It appears that at no time there was any firm assessment of the iron ore traffic which would move through the Mangalore Port and consequently will be required to be carried by the Hassan-Mangalore railway line.

1.93. As a matter of fact there could not be any accurate assessment of the iron ore traffic as at the time the Hassan-Mangalore railway line and the Mangalore Port projects were being conceived, no firm assessment of the iron ore reserves in the area to be served by these projects had been made. The State Government of Karnataka, who naturally wanted the early exploitation of the mineral resources projected a view that the area to be served by the Mangalore port had reserves of iron ore of more than 300 million tonnes. However, the projections made by the Indian Bureau of Mines placed these reserves at not more than 12.3 million tonnes. Thus there was disparity between the estimates of the reserves indicated by the Government of Karnataka, the Indian Bureau of Mines and the State Trading Corporation. In March, 1964, the Railway Board

became aware that the volume of iron ore traffic will be no more than 0.5 million tonnes. The Audit Para points out that it was clearly indicated in the project report that the justification of the rail link almost wholly rested upon the volume of iron ore traffic being not less than 2 million tonnes via Mangalore Port. The Railway Board, however, proceeded with sanctioning of the project in November 1964. Justifying the decision to go ahead with the project of Hassan-Mangalore rail link the Chairman, Railway Board has stated in evidence that although the expectation of iron ore had come down and the return was expected to be low, the project was sanctioned in consultation with the Ministry of Finance who felt that the project was considered necessary as otherwise the hinterland would not develop. Thus, just when the project was being sanctioned the emphasis had shifted from commercial movement of iron ore through Mangalore Port to other general considerations involving, inter alia, the economic development of the hinterland.

1.94. Right through the deliberations concerning the development of Mangalore Port, the likely export of iron ore through that port was estimated much lower. The Minerals and Metals Trading Corporation who are the canalising agency for the export of iron ore have informed that at the time of commencement of the construction work of Hassan-Mangalore line in July 1965, the Ministry of Railways were very well aware of the extremely limited iron ore export possibilities through the Mangalore Port. Thus, even as the Ministry of Railways approved the commencement of the construction work on Hassan-Mangalore line they knew that the project was commercially not remunerative. Interestingly, when the Committee enquired as to what were the considerations which made the Railway Board sanction the project even after knowing that it would be a burden on the Railway revenues, the Railway Board stated:

“Since a firm commitment had been made in the Parliament that this line would be constructed and the line was considered justified from the point of view of economic development of the region, it was decided to proceed with its construction in consultation with the Ministry of Finance.”

1.95. The Committee find that in 1971 the projected ore traffic was further scaled down to one lakh tonnes and a fresh reappraisal of the traffic prospects made in that year anticipated a total goods traffic of only about 8 lakh tonnes on the section both in the

Up and Down directions. In fact, at a meeting held in the Planning Commission on 24 April, 1971 where representative of the Railways was also present, the representative of the MMTC had indicated that in future the Mangalore Port was not likely to handle large quantities of iron ore because it would be uneconomic to export iron ore through Mangalore as compared to other Port. It is observed that with the progress of the Project the prospects of carrying the targeted traffic by the Railway line to the Mangalore Port have progressively come down.

1.96. While approving the composite scheme of the construction of railway line and the development of Mangalore Port, the Planning Commission had stipulated that since the Hassan-Mangalore line was needed for the development of Mangalore Port, the Ministry of Railways should draw up the schedule of construction of new line in consultation with the Ministry of Transport. The work on the construction of the Hassan-Mangalore line was commenced in July 1965 and was targeted for completion in a period of 8 years to synchronise with the opening of the new Port. The Harbour project was, however, actually sanctioned in June 1968 and on completion formally inaugurated and commissioned in January 1975. The Hassan-Mangalore link is still under construction. Wide gap of over three years both in the commencement and the likely target of completion of the rail link as compared with the commencement and completion of the Port project clearly indicates that there has been no meaningful coordination between the Ministry of Transport and the Ministry of Railways for taking coordinated action to achieve the desired goal of completion of both the projects simultaneously. The Committee regret this lack of effort on the part of the authorities concerned.

1.97. It is further seen that in 1963, at the instance of the Ministry of Transport the construction of the broad gauge line between the existing Mangalore rail head and the new Port site of Panambur covering a distance of 25.8 kms. was undertaken on an urgency certificate to provide facilities for taking materials to the site of the new harbour. This link was considered indispensable for the transportation of approximately 2 million tonnes of stones for breakwaters 50,000 tonnes of cement and 15,000 tonnes of steel required for the construction of the port. The construction of the railway connection from Mangalore to Panambur commenced in November 1963 and was completed by October 1972 at a cost of Rs. 2.6 crores. The harbour authorities, however, did not use this line for transportation of the materials and machinery required for the Harbour

Project on the ground that the rail transport was uneconomical. In the background of the expenditure that the Railways had been called upon to incur at the Port's request, it is regrettable that the Port authorities did not consider it economical to use this facility.

1.98. In 1963, when the Ministry of Railways were persuaded by the Ministry of Transport to undertake this work, the Ministry of Transport had not even worked out the relative economics of rail and road transport of the materials for the port as it was then felt that the work could be tackled only by rail transport. It was only in 1967 that the Ministry of Transport appear to have done some exercise about the relative economics of the rail and road transport, when they found out that the carriage of materials by rail would be costlier.

1.99. In extenuation of the use of road transport rather than the rail transport for the movement of materials for the port, it has been stated that there was a change in the design of the breakwaters which resulted in the reduction of the total quantity of the stones/boulders to be used in the breakwaters. As a result of the change, the size of the boulders was also reduced and hence the transportation by road became easier and economical. This change of design and subsequent reduction in traffic for the port link was not communicated to the Ministry of Railways. It was only in 1969 that the Port authorities told the Railways that they did not want to use the railway siding for the movement of stones and had decided to move them by road as the latter alternative was cheaper for them. The Committee have been given to understand that the rates offered by the Railways to the Port authorities for the transportation of the stones/boulders were slightly higher than the rates quoted by the road hauliers. The Railway Administration is also stated to have offered some further inducement by offering the 'rock spoils' at a concessional rate but they were not able to persuade the Port authorities to use the rail link. After having induced the Ministry of Railways to construct on priority basis the line at a heavy cost, ahead of the commencement of main project, it was but proper for the Ministry of Transport to have used the facility specially created for them. The Committee feel that this failure of the port authorities to honour their commitments to the Ministry of Railways to carry the boulders/stones traffic by rail needs to be investigated.

1.100. Another important point which agitates the Committee is the absence of an integrated approach to the problems of transportation. It is seen that about the same time the Hassan-Mangalore

rail link was being thought of, the State Government of Mysore had undertaken extensive road development works in order to facilitate the transport of iron ore. Between 1961 and 1969, the State Government had incurred an expenditure of Rs. 3.54 crores on the development of roads including the Hassan-Mangalore road. For the development of this road even the Government of India had provided a grant-in-aid on matching basis. The fact that the Railway Board were aware of the road developments in the area at the time of processing the proposed rail link for sanction has not been denied. This only fortifies the Committee's earlier impression that on the plea of the development of the hinterland, the authorities launched on an ambitious project of opening a railway line despite the availability or likely availability of good road communications for the transport of material for the port.

1.101. Apart from the question of justifiability of the rail connection between Hassan and Mangalore, the actual execution of the construction work of the link raises serious issues. While approving the composite scheme of Mangalore Port and Hassan-Mangalore rail link, the Planning Commission had laid great emphasis on the completion of the rail link in such a way that it synchronised with the opening of the Port. The Mangalore Port has been opened to traffic from January 1975. However, the rail link, as already stated, is yet to be completed. With the opening of the port, traffic (both exports and imports) has started moving. The total tonnage of traffic handled at the New Mangalore Port since its commissioning is 8.60 lakh tonnes, out of which the total tonnage of traffic handled in 1976-77 is 4.29 lakh tonnes. The traffic for the year 1977-78 has been estimated at 5 lakh tonnes. If the rail link had been ready a considerable portion of this traffic would have been handled by the Railways. The Committee also apprehend that once the ore and other traffic starts moving to the Mangalore Port by road, it may be difficult for the Railway Administration to get back the ore and other traffic to the railways from the road hauliers.

1.102. Delay in the execution of the work is responsible for the escalation of the cost of the project which may well exceed Rs. 42 crores against the original estimates of Rs. 23.73 crores. Giving the reasons escalation of cost the Ministry of Railways have explained that besides the rise in prices, the conditions of work in the Ghat Section were 'very difficult' which have also added to the expenditure. The Committee are not convinced by this argument as they feel that the difficulties likely to be encountered in the Ghat Section could have been visualised much earlier. The Committee also

note that an expenditure of Rs. 3.41 crores has been incurred in providing broad-gauge profiles for tunnels, broad-gauge substructures for bridges and a by-pass line. Further since the link has not been completed, the portion already completed cannot be put to any effective use with the result that capital assets of huge magnitude remain unutilised or underutilised. The main reasons for non-completion of the rail link were the inadequate allocation of funds as also the difficulties encountered in the completion of the work in Ghat Section. The Committee feel that if there was inadequate allocation of funds for the rail link, this should have been taken up with the Planning Commission, who were in a better position to assess the relative importance of the project.

1.103. The Committee are inclined to believe that the real cause for the delay in the completion of the construction work was that as the rail link was not strictly justifiable on the grounds of traffic requirements in the hinterland, there was no pressing demand to complete the work early. With bleak prospects of the traffic materialising, the project was apparently accorded a low priority.

1.104. That the projections of iron ore, on the basis of which the project was sanctioned, were highly inflated and unrealistic is borne out by the fact that in 1975-76, only 74,000 tonnes of iron ore moved to the new Mangalore Port by road. If that is an indication of the likely volume of iron ore traffic to be moved by the rail link, it is obvious that this rail link will involve heavy recurring losses to the railways.

1.105. On the basis of the facts disclosed, the Committee are firmly of the opinion that there should be deep probe by an inter-ministerial team with a non-official Chairman of the circumstances leading to the sanction of the Hassan-Mangalore Rail Link, which has involved the State in colossal capital expenditure without any prospects of return in the foreseeable future. The team may be asked to examine the *raison d'être* of the project and pin-point responsibility, if any, for the doubtful decision which has imposed heavy burdens on the Exchequer without commensurate returns.

CHAPTER II

LINE CAPACITY WORKS

NORTH EASTERN RAILWAY—RESTORATION OF ABANDONED METRE GAUGE LINES BETWEEN SARAIGARH AND FORBESGANJ

Audit Paragraph:

2.1. The north eastern region of Bihar (part of Saharsa and Purnea Districts) was served by metre gauge rail links—Supaul-Bhaptiahi (now Saraigarh (27.2 kms.), Bhaptiahi-Nirmali (16 kms.), Bhaptiahi-Pratapganj-Kanwaghat (38 kms.), Ancharaghat-Forbesganj (about 26kms*) and Pratapganj-Bhimanagar (19.2 kms). These links to be gradually abandoned between 1904 and 1938 (the last one immediately after completion in 1911) because of the ravages caused by floods and changes in the course of river Kosi.

2.2. With the completion of the Kosi barrage and its related flood control measures in 1963, the river has been contained resulting in development of the area. Consequently, the restoration of abandoned links was considered and the line between Supaul and Thurbhita (about 13 kms) was restored and opened for traffic in October 1967. This line was extended to Saraigarh (11 kms) in November 1970 (cf. paragraph 45 of Audit Report, Railways, 1970 and paragraphs 1.26 to 1.31 and 1.34 of the Eleventh Report of the Public Accounts Committee 1971-72).

2.3. On the proposal of the Government of Bihar for the restoration of the railway line from Saraigarh to Forbesganj, the Railway Board directed the North Eastern Railway Administration in November 1970 to make a quick assessment of the rough costs and financial viability of the proposed restoration. The reconnaissance survey report and the traffic appreciation report submitted by the Railway Administration to the Board in April 1971 indicated that the whole section was expected to yield a return of (—) 1.46 per cent during 1974-75 but if the restoration was carried out from Saraigarh to Raghapur only (11 kms) the return would be 3.79 per cent. In the reconnaissance survey report a straight alignment from Forbesganj to Pratapganj *via* Debiganj and Narpatganj instead of the old alignment *via* Kanwaghat and Ancharaghat (rail-cum-ferry crossing) was

*Distance between present locations.

proposed. The total length of the proposed alignment between Forbesganj and Saraigarh was to be 56.34 kms. The Administration recommended restoration of the section from Saraigarh to Raghapur in the first instance in view of the many developments occurring in the Kosi belt.

2.4. The Railway Board, however, advised the Administration (November 1971) to update the earlier appreciation report and decided that the proposal submitted by the Railway Administration in October 1971 to undertake a preliminary engineering-cum-traffic survey would be considered only if the revised appreciation report established *prima facie* justification for Saraigarh-Forbesganj link.

2.5. Before, however, the Railway Administration could update the appreciation report the Railway Board, in the context of the policy adopted by Government in 1973 for undertaking new lines and for restoration of dismantled lines, desired in April, 1973 that an urgency certificate for restoration of line between Saraigarh and Raghapur (11 kms) should be sent to it expeditiously. It was then stated by the Railway Administration that there had been great pressure from the local authorities and public representatives for the restoration of at least that section as part of the total restoration programme. An urgency certificate with an abstract estimate for Rs. 47.98 lakhs was accordingly sent to the Railway Board on 13th April 1973. Another urgency certificate with an abstract estimate for Rs. 72 lakhs for the restoration of Raghapur-Pratapganj section (12 kms), was also sent to the Railway Board on 3rd May 1973. The circumstances which warranted the urgency were:—

Saraigarh-Raghapur

“... The pressure of the fast developing economy specially in Raghapur area has made the public impatient for the restoration of this railway line. The programme for intensive farming after the recent drought has made the proposed restoration an immediate necessity....”

Raghapur-Pratapganj

“... Since the area between Raghapur and Pratapganj is comparatively more fertile and populous and also in view of the programme of intensive farming launched after the recent drought, the State Government, local public and the Members of Parliament and the State Legislature have strongly urged that the restoration should be taken up forthwith between Raghapur and Pratapganj also....”

2.6. The Railway Board decided in May 1973 that only essential sub-works should be undertaken during 1973-74 before detailed estimates were sanctioned and communicated its approval to the works of Rs. 48 lakhs being undertaken on the urgency certificates against the amount of the abstract estimates of Rs. 119.98 lakhs. The abstract estimates were prepared based on reconnaissance survey carried out in 1970-71.

2.7. The target for completion of the work in the two sections Saraigarh-Raghopur and Raghopur-Pratapganj, were set as March 1974 and June 1974 respectively. The execution of the work in these sections commenced on 18th June 1973 without preparation of the working estimates for earthwork etc., and completion of the final location engineering-cum-traffic survey. An expenditure of Rs. 67,703 had been incurred on field work till the end of July 1973.

2.8. The Railway Administration stated (December 1975) that the field survey by the Engineering teams was taken up on 12th June 1973 and completed on 4th July 1973 and that the data of final location survey were available by the end of July 1973; the detailed estimate was sent to the Railway Board on 1st August, 1973.

2.9. As mentioned, the works in the two sections were required to be completed by March and June 1974 respectively. It was found in February 1974 that as many as six major bridges in the former section were still incomplete, and that the girders for these bridges would not be available in time. The Engineer-in-Chief ordered on 25th February 1974 that temporary low level diversions should be laid for five of the six bridges by diverting all earthwork labour from the adjoining Raghopur-Pratapganj section and it was to be ensured that the track was linked continuously from Saraigarh to Raghopur by 2nd March 1974. Accordingly, diversions were laid by executing earthwork measuring 25,200 cu.m. approximately and laying track at an estimated expenditure of about Rs. 1.41 lakhs.

2.10. The Additional Commissioner, Railway Safety however, when approached by the Railway Administration on 4th March 1974 to fix up a date for inspection of the line for authorisation for opening it, declined to inspect the section on the ground, *inter alia*, that, as per extant orders, no temporary or makeshift arrangements, however safe, should be permitted in opening a new line. Consequently, the work on the five bridges was completed by 25th April 1974 and a total avoidable expenditure of Rs. 1.41 lakhs was incurred on the diversion.

2.11. The line was inspected by the Additional Commissioner, Railway Safety, and was authorised for opening on 1st May 1974. The up-to-date expenditure (till August 1975) was Rs. 1.33 crores.

2.12. Construction estimate for Rs. 1.92 crores for Saraigarh-Pratapganj section was re-submitted to the Railway Board in March 1974 when 60 per cent of work had been completed. In July 1974 (that is, after the line was opened for traffic on 16th June 1974), the Railway Board sanctioned the estimate for the net cost of Rs. 1.61 crores chargeable mainly to Depreciation Reserve Fund (after deduction of the provision of Rs. 26.05 lakhs for Rolling Stock).

2.13. The detailed estimate submitted to the Railway Board in March 1974 provided for execution of 3.40 lakhs cu.m., of earthwork at an estimated cost of Rs. 14.61 lakhs whereas the earthwork actually executed was 5.91 lakh cu.m., at a cost of Rs. 23.62 lakhs. There was an increase of about 74 per cent in quantity and 62 per cent in cost as compared to the provisions in the estimate. Again, though the line was opened for traffic in June 1974, the earthwork was finally measured in April 1975.

2.14. The Administration stated (August 1975) that this substantial variation in quantity was on account of adoption of a higher formation level due to consideration of floods, clearances at bridges, changes of gradients, etc., as required by site conditions and omission to provide for earthwork for platforms and approach roads to level crossings in the original estimates. As in this case the construction estimates were prepared when 60 per cent of the work had been completed, it is felt that these factors should have been taken into account by Railway Administration for reasonably accurate estimation of earthwork. The Administration further stated (December 1975) that the question of measurement of earthwork did not arise as it had been done departmentally and that the measurements were taken in April 1975 for the purpose of preparing the completion estimate.

2.15. In April 1973, the Railway Board directed the Railway Administration to submit a revised estimate for carrying out detailed engineering survey alongwith the traffic survey then in progress for the entire restoration project from Saraigarh to Forbesganj though, the essential sub-works for the restoration of the Saraigarh-Raghopur and Raghopur-Pratapganj sections of this project were sanctioned in May 1973 on urgency engineering survey. The Railway Board also suggested that the above Project should be linked suitably with two other projects under contemplation viz.,

- (a) construction of a metre gauge line between Bathnaha and Bhimanagar, involving conversion of the dead narrow gauge line belonging to Kosi Project authorities; and

(b) restoration of the Pratapganj-Bhimanagar line.

(These works, however, are still to be sanctioned).

2.16. The Railway Administration submitted a final location survey and traffic appreciation report in August 1973 alongwith an estimate for Rs. 4.43 crores for the entire project with proposed alignment of 72 kms (of which 49 kms was between Pratapganj and Forbesganj). The Railway Board, in October 1973, Modified the report and the length of the alignment between Pratapganj and Forbesganj finally approved was 41 kms. In March 1974 the Railway Administration submitted a construction estimate of Rs. 3.98 crores to the Railway Board for the restoration of the Pratapganj-Forbesganj link with reference to the alignment finally approved. In July 1974, the Railway Board sanctioned a net estimate of Rs. 3.37 crores mainly chargeable to Capital and Depreciation Reserve Fund (after deduction of the provision of Rs. 55.50 lakhs for Rolling Stock).

2.17. The work in this section started in September 1973. It was scheduled to be completed by January 1975; the line was authorised for opening by the Additional Commissioner, Railway Safety, on 11th June 1975; but was actually opened for goods traffic on 25th August 1975 and passenger traffic on 2nd October 1975. The progressive expenditure on this work was Rs. 2.57 crores till the end of August 1975.

2.18. The detailed estimates for the section Pratapganj-Forbesganj provided for execution of earthwork measuring 8.17 lakh cu.m., (for an alignment of 41 kms) at an estimated cost of Rs. 33.44 lakhs. The total expenditure on earthwork (for an alignment of 36.25 kms) booked up to October 1975 was Rs. 59.89 lakhs, the increase being 79 per cent over the estimated cost. The measurement of earthwork is stated to have been completed by December 1975.

2.19. The accounts of both the works are still open to admit the liabilities already incurred and to accrue in future as certain ancillary work is still to be done in both the sections.

[Paragraph 15 of the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)].

2.20. The Committee have learnt that the rules in the Indian Railway Engineering Code provide that in order to decide whether the preparation of a project for proposed railway line can be justified a preliminary investigation should be carried out so that from the results of the investigation it should be possible to decide whether

necessary surveys should be undertaken. Further, prior to actual commencement of the work, it is necessary to carry out:-

- (i) Traffic survey—with the object of deciding the most promising route for a railway in the area,
- (ii) Reconnaissance Survey—rough and rapid investigation of an area or one or more routes for a projected railway,
- (iii) Preliminary Survey—a detailed instrumental examination to obtain a close estimate of the probable cost and to decide whether a line is to be built or not, and
- (iv) Final location survey—undertaken usually after it has been decided to construct the line—with the object of staking the line on the ground and preparing detailed plans and estimates.

2.21. A detailed procedure has thus been laid down which has to be followed before undertaking any project for the construction of a new line or restoration of an old line. From the Audit paragraph it is seen that a reconnaissance survey report and the traffic appreciation report on the proposed restoration of the railway line from Saraigarh to Forbesganj prepared in April 1971 indicated that the whole section was expected to yield a return of (—) 1.46 per cent during 1974-75 but if the restoration was carried out from Saraigarh to Raghapur only the return would be 3.79 per cent. The North Eastern Railway Administration had recommended restoration of the section from Saraigarh to Raghapur in the first instance in view of many developments occurring in the Kosi belt. In November, 1971, the Railway Board advised the Railway Administration to update the earlier appreciation report. However, before the Railway Administration could do so, the Railway Board in the context of the policy adopted by Government in 1973 for undertaking new lines and for restoration of dismantled lines, desired in April, 1973 that an urgency certificate for the restoration of the line between Saraigarh and Raghapur should be sent. An urgency certificate with an abstract estimate for Rs. 47.98 lakhs was accordingly sent to the Railway Board on 13 April, 1973. Another urgency certificate with an abstract estimate for Rs. 72 lakhs for the restoration of Raghapur—Pratapganj section was also sent to the Railway Board on 3 May, 1973. The abstract estimates enclosed with the urgency certificates were prepared on the basis of reconnaissance survey carried out in 1970-71. The Committee asked whether a preliminary survey, as envisaged in the relevant rules, was not essential before undertaking the work and how the Railway Board consider that the data in Reconnaissance

'Survey of 1970-71 was adequate to enable sanctioning of the projects particularly when the Board had decided earlier in November 1971 that the data should be updated. The Ministry of Railways have, in a note, stated:

“According to para 405 of the Railway Code for the Engineering Department, an abstract estimate could be prepared on the basis of a Reconnaissance Survey. However, in the present case instead of a Preliminary Survey a Final Location survey was completed and detailed estimate prepared on the basis of the final location survey for the section Pratapganj-Forbesganj, where new alignment has been adopted in part of the section. In the case of Sarai-garh-Pratapganj section, however, the old alignment was followed in toto for restoration of the line and the estimate prepared at the time of reconnaissance survey was considered sufficiently accurate for taking the investment decision by the Railway Board.”

2.22. In another note on the subject, the Ministry of Railways have further explained:

“The abstract estimate was prepared on the basis of a Reconnaissance Survey and as such the requirement of Para 1004-E was substantially followed to enable the Railway Board to accord sanction under Para 1005-E. While a Reconnaissance Survey is followed by a Preliminary Survey and Final Location Survey in the case of construction of new lines in the normal course, such a step was not considered necessary in this particular case in view of the change in the policy, as announced by the then Railway Minister in respect of construction of new lines of comparatively shorter stretch for facilitating development and restoration of abandoned lines so as to set up the much needed transport infrastructure for the development of potentially rich area without viewing the expenditure too closely in terms of prospects of immediate return on investment.

In the context of the aforesaid change in policy as also keeping in view the necessity of restoring the abandoned line early, the requirement of Code rules could not be viewed too rigidly and the investment decision was taken as a measure of providing the much needed transport infras-

structure for development for which the Railway Board had the requisite information collected through a Reconnaissance Survey for preparation of an Abstract Estimate and sanction the work on Urgency Certificate."

2.23. It is seen from Audit Paragraph that the survey work had commenced on 12th June, 1973 and completed on 4th July, 1973. The detailed estimate itself was submitted to Railway Board on 1st August, 1973. The Committee enquired whether the detailed estimate were based on the survey report and if not was it not worthwhile waiting for this report.

The Ministry of Railways have replied:

"The detailed estimate submitted to the Railway Board was based on the final location survey completed on 4th July, 1973, *i.e.* about a month before submission of the estimate to the Board. The estimate, in fact formed a part of the survey report submitted by the Railway Administration."

2.24. The Audit para states that the execution of the work was commenced on the 18 June, 1973 without preparation of the working estimates for the earthwork etc. In this context, the Committee asked whether it was not necessary to have at least working estimates prepared before the commencement of execution of earthwork. The Ministry of Railways have in a note stated:

"During June, 1973 an amount of Rs. 3580 was spent and hardly any work was done. Even during July, 1973, the amount spent was only Rs. 64,123. In the meantime the final location survey had been completed on 4th July, 1973. As such all details were available to plan and execute the work at that stage."

2.25. The Committee enquired about the justification for undertaking the work without preparation of working estimates and desired to know how technical and financial control on execution of works and expenditure could be exercised in the absence of the working estimates. In reply, the Ministry of Railways have stated:

"....the work was started on urgency certificate and the preparation of working estimate was not necessary before the commencement of work in terms of para 1003 of the Railway Code for the Engineering Department."

2.26. Commenting on the Ministry's note, the Audit have pointed out:

"Though the construction on the basis of first abstract Estimate could be commenced, it is not clear how individual works included in the Project could be commenced without even a working estimate and how the technical and financial control on execution of work could be exercised in the absence of such estimates."

2.27. In this connection, the Ministry of Railways have, in a note, stated:

"In terms of Para 1003-E, the sanction of a work on Urgency Certificate contemplates its commencement prior to the preparation and sanction of the detailed estimate. Hence availability of working estimate is not a prerequisite for commencement of work on Urgency Certificate. The detailed estimate for the entire restoration Project, Saraigarh-Raghopur-Pratapganj-Forbesganj, based on the Final Location Survey was submitted by N.E. Railway to the Railway Board Vide this Railway's letter No. W/247/98/10-W-1 dated 1-8-73. Hence, in terms of 915-E, preparation of working estimates was not necessary."

2.28. The Ministry of Railways have informed the Committee that the entire section from Saraigarh to Pratapganj was initially planned to be opened by June, 1974 for goods as well as passenger traffic. Subsequently, the date of opening of the section Saraigarh-Raghopur was advanced to March, 1974. The sections were actually opened to traffic on the dates indicated below:—

Section	Goods	Passenger
Saraigarh—Raghopur	16-6-1974	16-6-1974
Raghopur—Pratapganj	16-6-1974	25-9-1974

2.29. According to the Audit Paragraph the works in the two sections were required to be completed by March and June, 1974 respectively. In February 1974, it was found that as many as six bridges in the former section were still incomplete. The Engineer-in-Chief ordered on 25 February, 1974 that temporary low level diversions should be laid for five of the six bridges for linking the track continuously by 2 March, 1974. In this context, it is relevant to mention

that paragraph 1606 of Indian Railway Code for the Engineering Department provides:

“Every new line or a section thereof should, before sanction can be obtained for its opening for the public carriage of passengers be inspected and passed by the Government Inspector of Railways concerned in accordance with the Rules for the opening of a Railway for the public carriage of passengers. No new line or a section thereof should be offered for the inspection of the Government Inspector of Railways until it has been completely equipped. No temporary or makeshift arrangements, however, safe, should be permitted.”

2.30. The Committee accordingly desired to know whether before ordering temporary diversions the provisions of the rules under paragraph 1606 of Indian Railway Code as mentioned above were taken into account and how the Railway Administration expected the Additional Commissioner, Railway Safety to authorise the opening of the line for traffic when the work on the bridges was not yet complete. The Ministry of Railways have, in a note, explained:—

“The main purpose of laying the low level service tracks at the locations where the completion of bridges was likely to take time was to establish a continuous service rail link to enable the movement of bridge girders and track materials for completing the remaining portion of the work and thus expediting the completion of the project. About 105 wagon-loads of materials were moved on the section with this arrangement. This also enabled the consolidation of formation for movement of departmental trains. This was considered essential as the formation had not faced even one monsoon and the line was proposed to be opened for goods and passenger traffic simultaneously.

Under the normal circumstances, it was intended to complete all the bridges before opening the line for public carriage of passengers. The low level service tracks were also included in the list of temporary works furnished to the Additional Commissioner of Railway Safety together with the list of permanent bridges at these locations. In the event of non-completion of any of the bridges the Railway Administration was not barred in using the service track for opening the line to traffic. Para 1609 of the Engineering Code lays down as to when a new line should not ordinarily be considered fit for opening. The existence of

the service tracks did not in any way contravene the provisions of this rule. It may be pointed out that laying of diversions and service tracks for a short period for movement of traffic and construction of temporary bridges is the normal practice on the Railways particularly when the restoration of traffic is done after floods, breaches and accidents. On the Saraigarh-Raghopur section, Additional Commissioner of Railway Safety allowed the movement of passenger traffic on a temporary bridge on sleeper cribs."

2.31. Commenting on the above note of the Ministry of Railways, the Audit have stated:

"It is difficult to appreciate that the main purpose of laying the low level diversions was to establish a continuous service rail link to enable the movement of griders and track materials and thus expediting the completion of the Project. According to ENC (Con)'s No. W/247/Eng./Restoration/Works dated 24-2-1974 (addressed to all officers working in Saraigarh-Pratapganj-M.G. restoration project) "the line from Saraigarh to Raghopur will be opened to traffic by the Minister of Railways on 24th March, 1974." This obviously meant that the Saraigarh-Raghopur line was to be opened for public traffic by the 24th March and not for carriage of departmental materials. That is also why ACRS's inspection was sought for on the 4th March, 1974. In that context, it would appear that the low-level diversion tracks were constructed for carrying public traffic and not bridge, construction materials. Also the fact that passenger tickets and Goods Invoices to various stations on Saraigarh-Raghopur section were supplied in the third week of March 1974 confirms the view that the diversion was laid to facilitate opening of the section for public traffic."

2.32. The Ministry of Railways have further elucidated as under:—

"That Saraigarh-Raghopur section was to be inaugurated on March 24, 1974 by the then Minister of Railways for passenger traffic is a known accepted fact. It is, therefore, obvious that if the line was to be opened to traffic by March 24, 1974, it had not only to be physically in existence on that date but also fit for the purpose in various respects which included the finalisation of commercial formalities also.

In the block section, no service roads could be laid to transport heavy construction materials as the area was waterlogged and the only suitable means to transport materials was through rail. Therefore, temporary low level service diversions had to be laid at the bridge sites to establish continuous rail link for transporting heavy construction material to enable the work to be tackled in the entire section and also to permit the bank under alignment to be rolled before the admission of public traffic. The section had not been through even one monsoon and intensive rolling had become all the more essential for safety. It is reiterated that the section would not have been completed and made available for passenger traffic by the stipulated date had the continuous rail link not been established, as was done in this case."

2.33. The committee enquired whether any diversions were laid in the section Raghopur-Pratapganj and if so when and how many times. The Ministry of Railways have replied:

"Low level diversions were constructed at two places on the section Raghopur-Pratapganj during May and June, 1974."

2.34. When asked about their cost, the Ministry have stated:

"Expenditure incurred on the laying of these two low level service tracks was approximately Rs. 10,000 which comprised the cost of shifting the earth and the track from service tracks to the final alignment."

2.35. Asked as to why the necessity of diversion in this section was felt, the Ministry of Railway have informed that the purpose of laying these service tracks was also to transport heavy construction materials to enable early completion of the project and also consolidation of the new formation.

2.36. In reply to another question the Ministry have stated that goods trains were also allowed to move over these service tracks but permanent bridges and formation were completed before the section was opened for passenger traffic.

2.37. The Audit Paragraph points out that according to abstract estimate submitted to the Railways Board in April-May, 1973 the cost of work between Saraigarh and Pratapganj was estimated at about Rs. 1.20 crores and the construction estimate was for Rs. 1.92 crores. When enquired about the reasons for the wide variations of about

60 per cent in these estimates, the Ministry of Railways have stated that:

“the cost of Rs. 1.92 crores included the cost of rolling stock and according to the estimate which was finally submitted to the Board in March, 1974 the cost of work was only Rs. 1.61 crores excluding the cost of rolling stock. The increase in cost from Rs. 1.20 crores (as per abstract estimate) to Rs. 1.61 crores (about 33 per cent.) was mainly on account of the increase in prices in the intervening period and also due to more precise determination of the quantities as compared to the reconnaissance survey which was done earlier.”

2.38. According to the Audit Para, the detailed estimate submitted to Railway Board in March 1974 provided for execution of 3.40 lakhs cu.m. of earthwork at an estimated cost of Rs. 14.61 lakhs whereas the earth work actually executed was 5.91 cu.m. at a cost of Rs. 23.62 lakhs. Enquired as to why the actual quantity of earthwork executed varied so much from the quantity indicated in the estimates, which had been prepared after the work had progressed to more than 60 per cent, the Ministry of Railways have replied that the increase in quantities was mainly on account of the fact that formation level had to be raised over a considerable length as it was indicated by Kosi canal authorities that higher free board than the normal was necessary in the Kosi Canals on account of siltation in the system. Hence, more free boards were adopted in the actual execution.

2.39. The Ministry of Railways have further added that the quantity of earth work amounting to 5.91 lakhs cu.ms. which was finally done included the earth work required to be done at the level crossings, Goods and Passenger platforms, station approach roads which amounted to 29877 cu.ms. This also included the quantity of earthwork done for the low level service tracks to the extent of 36700 cu.ms. in the first instance and rehandling of the same quantity for putting in the main formation.

2.40. It is seen from the Audit Paragraph that the Saraigarh-Pratapganj line was opened for traffic in June 1974, but the earthwork was finally measured in April, 1975. Explaining the reasons for delay of one year in taking measurements, the Ministry of Railways have stated:

“The earth-work on the entire project was completed sometime in June, 1974 just before monsoon season. In this particular case the measurements of the earthwork were not required to be taken immediately after its execution as

the whole work was done and maintained departmentally, and not through contractors. The measurements of earth-work were taken during April, 1975 for the purpose of preparing the completion statement and completion report."

2.41. In reply to a query the Ministry of Railways have informed the Committee that the total expenditure on Saraigarh-Pratapganj Project upto end of March, 1976 was approximately Rs. 1.48 crores (the figures are yet to be reconciled with the account).

2.42. Asked if the completion report for this work had been drawn up, the Ministry have stated in September, 1976:—

"The completion report for this work has not yet been drawn. The final ballasting of the section has been recently completed but some of the debits against this project are still to be adjusted. The completion report will be prepared shortly, after the Accounts of the work are closed."

2.43. The Committee desired to know whether the final alignment of the Railway line from Saraigarh to Pratapganj and Pratapganj to Forbesganj followed the alignment of abandoned lines. The Ministry of Railways have in a note stated:

"The final alignment of the Railway line from Saraigarh to Pratapganj is entirely on the alignment of the abandoned line which was also adopted in the Reconnaissance Survey Report of April, 1971. In the case of Pratapganj-Forbesganj section also the old alignment was mostly followed except for a length of 9.4 kms. in the portion which was in the bed of river Kosi in the past and the estimates of the portion Pratapganj-Forbesganj line was framed and sanctioned on the basis of a final location survey."

2.44. The Committee asked how the work on Pratapganj-Forbesganj was commenced in September 1973 before the Railway Board had approved the estimate (July 1974). In reply, the Ministry of Railways have stated that the Railway Administration was authorised by the Railway Board to commence the work on Pratapganj-Forbesganj section vide their XXR message No. 73/W4/CNL/NE/5 dated 22 December, 1973 to make certain changes in the alignment and also to bifurcate the estimate into two parts one for Saraigarh-Pratapganj and the other for Pratapganj-Forbesganj section as the two projects had been included separately in the Railway Budget. These revised and bifurcated estimates were submitted to the Board in March, 1974 and were sanctioned in July, 1974.

2.45. In reply to another question the Ministry have informed the Committee that the expenditure on Pratapganj-Forbesganj line upto the end of March, 1976 was approximately Rs. 3.02 crores as against the sanctioned estimated cost of Rs. 3.37 crores (the figures are yet to be reconciled with the Accounts).

2.46. The Audit Paragraph points out that the detailed estimates for the section Pratapganj-Forbesganj provided for execution of earthwork measuring 8.17 lakhs cu.ms. (for an alignment of 41 Kms) at an estimated cost of Rs. 33.44 lakhs whereas the total expenditure on earthwork (for an alignment of 36.25 Kms.) booked upto October 1975 was Rs. 59.89 lakhs, the increase being 79 per cent over the estimated cost. When asked about it, the Ministry of Railways have in a note stated:

“The quantity of earthwork in the main-formation provided in the estimate was 8.17 lakhs cu.ms. while the actual quantity executed in the main formation was 9.64 lakhs cu.ms. constituting an increase of about 18 per cent over the estimated quantity. This was primarily on account of the raising of the formation level in order to provide additional clearances at the Canal Crossings on the suggestion of the Bihar State Government Irrigation Deptt. In addition to the quantity of 9.64 lakh cu.ms., earth work was done for the service roads to the extent of 1.62 lakhs cu.ms. In the estimate, only lump sum provision of Rs. 5880 was made on the construction and maintenance of service roads and this was not reflected in the quantity of earthwork provided in the estimate.

The increase in the cost of earth-work in relation to the estimated cost was mainly on account of the following reasons:

- (i) Increase in the quantity of earth-work in the main formation on account of raising of the formation level.
- (ii) Higher expenditure on the construction and maintenance of service roads which is now estimated as Rs. 4.08 lakhs for construction and Rs. 1.81 lakhs for maintenance as compared to Rs. 5880-provided in the sanctioned estimate. The provision in the sanctioned estimate for service roads was very much on the low side.
- (iii) Additional expenditure on turfing and pitching was Rs. 4.10 lakhs which is now estimated to cost Rs. 5.11 lakhs.

(iv) Difficult working conditions and higher rates of earth work.

Soil was fully saturated with water at the time when earthwork was done a considerable length of the alignment and water used to accumulate in the borrow pits after a little excavation and in some of the locations earth had to be brought from long distances either by head load or by departmental wagons. This resulted in higher cost of the earthwork."

2.47. The Committee desired to know the extent of traffic on the sections Saraigarh-Pratapganj and Pratapganj-Forbesganj since their opening and enquired how it compared with the estimates. The Ministry of Railways have replied as under:—

"The figures of the entire traffic on Saraigarh-Pratapganj and Pratapganj-Forbesganj sections are not readily available and are under collection and compilation.

The line from Saraigarh to Forbesganj was surveyed as one consolidated section and therefore, the anticipations of traffic given in the Traffic Survey Report are for the whole section. The section was opened in parts commencing from Saraigarh end and the entire section from Saraigarh to Forbesganj was declared open for traffic only during October, 1975. The traffic figures are therefore, not available even for one full year to compare them with the anticipated figures which are also on yearly basis. Even otherwise it is too early to compare the traffic materialised with anticipated figures at this stage. The whole section is not even stone ballasted due to which permissible speeds are very low (25 Kmph). It will take some more time to get the section in normal form. The true perspective of traffic is therefore, not likely to emerge at this premature stage."

2.48. The Committee note that in November 1970 following a suggestion received from the Government of Bihar for the restoration of the Railway line from Saraigarh to Forbesganj, the Ministry of Railways directed the North Eastern Railway Administration to make a quick assessment of the rough costs and financial viability of the proposed restoration. The reconnaissance survey report and the traffic appreciation report submitted by the Railway Administration in April 1971 indicated that the whole section was expected to yield a return of (—) 1.46 per cent during 1974-75 but if the restoration was carried out from Saraigarh to Raghapur only (11 kms.)

the return would be 3.79 per cent. The Railway Administration had accordingly recommended restoration of the section from Saraigarh to Raghapur in the first instance. The Committee also note that in October 1971, when the Railway Administration submitted a proposal for undertaking a preliminary engineering-cum-traffic survey the Ministry of Railways advised the Administration to update the earlier appreciation report with a view to determine whether there was a prima facie justification for Saraigarh-Forbesganj link. The Committee are, however, surprised to note that before the Railway Administration could update the appreciation report, the Ministry of Railways decided in May 1973 about the restoration of rail links between Saraigarh-Raghapur and Raghapur-Pratapganj sections, for which two urgency certificates were obtained from the Railway Administration without even an engineering-cum-traffic survey. The reason for this extraordinary promptitude is not understandable.

2.49. The abstract estimates enclosed with the urgency certificates were of the order of Rs. 119.98 lakhs and those had been prepared on the basis of a reconnaissance survey carried out earlier in 1970-71. It is thus interesting to note that in October 1971, when the Railway Administration proposed undertaking of a preliminary engineering-cum-traffic survey, the Ministry of Railways advised the Railway Administration to update the data contained in the reconnaissance survey before their proposal could be considered, but later on they themselves decided about the restoration of the rail links for which the same survey report formed the basis. The Audit Paragraph also points out that the execution of the work in these sections commenced on 18 June, 1973 without preparation of the working estimates for earthwork etc., and completion of the final location and engineering-cum-traffic survey. The Committee are astonished at the unseemly haste displayed by the Ministry of Railways in sanctioning these restoration projects and proceeding with the execution of works connected therewith without making any detailed investigation or surveys as required under the provisions of the Indian Railway Engineering Code. It appears that soon after the then Minister of Railways made an announcement on February 20, 1973 through his budget speech in regard to the new policy to be followed in construction of new lines, the Ministry of Railways lost no time in seriously taking up the restoration of rail links between Saraigarh and Forbesganj sections. Whether they could be justified on the ground of financial viability was altogether a different question. As a matter of fact even the normal procedures required to be followed in connection with the construction

of a new line or restoration of an abandoned line were dispensed with. The urgency shown in proceeding with the execution of this work in utter disregard of the laid down procedures was not at all warranted.

The committee would like to be informed as to how many projects for restoration of old and abandoned lines were taken up during the same period and by what time they were completed and actually commissioned.

2.50. The Committee find that after deciding in May 1973 that only essential sub-works should be undertaken during 1973-74 before detailed estimates were sanctioned, the Ministry of Railways proceeded apace in the execution of the works connected with the restoration. The Ministry of Railways have informed the Committee that the entire section from Saraigarh to Pratapganj was initially planned to be opened by June 1974 for goods as well as passenger traffic. Subsequently, the date of opening of the section Saraigarh-Raghopur was advanced to March 1974 to enable the Minister of Railways to inaugurate it on that date. Surprisingly, in order to ensure that the line was "physically in existence on that date" even some makeshift arrangements in total disregard of the extent orders were made. It is seen that in February 1974 some temporary low level diversions were provided in Saraigarh-Raghopur section by diverting all earthwork labour from the adjoining Raghopur-Pratapganj section, with a view to ensure that the track was linked continuously from Saraigarh to Raghopur by 2 March, 1974 so as to be ready for formal inauguration by the Minister on the appointed date. Since such temporary diversions were not permissible under the rules, the Additional Commissioner, Railway Safety declined to inspect the section, when approached by the Railway Administration and ultimately the work on the bridges was got completed by the 25 April, 1974. This resulted in an unavoidable expenditure of Rs. 1.41 lakhs on the diversion.

2.51. The construction estimate for Saraigarh Pratapganj section was submitted to the Railway Board in March 1974 when 60 per cent of the work had been completed and this was sanctioned by the Railway Board in July, 1974, i.e., after the line had actually been opened for traffic on 16 June, 1974. The estimate could therefore not serve the purpose of financial control. Even the estimates submitted to the Railway Board in March 1974 were far from being accurate in that against an estimated provision of 3.40 lakhs cu. m. of earthwork at

an estimated cost of Rs. 14.61 lakhs, the earthwork actually executed was of the order of 5.91 lakhs cu. m. at a cost of Rs. 23.62 lakhs. There was thus an increase of about 74 per cent in quantity and 62 per cent in cost as compared to the provisions in the estimate.

2.52. The Committee also find that in March 1974 the Railway Administration had submitted a construction estimate of Rs. 3.98 crores for the restoration of the pratapganj-Forbesganj link with reference to the alignment finally approved and the Railway Board had sanctioned a net estimate of Rs. 3.37 crores in July 1974. The work on this section had started in September 1973 and the progressive expenditure on this work was Rs. 2.57 crores till the end of August 1975. Again, the expenditure on the earthwork involved in this work as booked upto October 1975 was Rs. 59.89 lakhs as against the estimate of Rs. 33.44 lakhs, which represented an increase of 79 per cent over the estimated cost.

2.53. From the above paragraphs it is clear that the works on the Saraigarh-Pratapganj and Pratapganj-Forbesganj sections were executed with undue waste without any attention having been paid to planning and observance of financial procedures. The Committee are deeply concerned that even the elementary principles of technical and financial control, which should have been scrupulously observed were given the go by. The Committee are at loss to understand how in the execution of works of such a magnitude the Ministry could proceed without collecting reliable data and preparation of realistic estimates. The extraordinary promptitude with which the entire restoration work has been started and completed in this section where traffic prospects could be termed only meagre, leads the Committee to conclude that work was dictated for reasons other than genuine needs of traffic in the area. The Committee would like the matter to be investigated thoroughly to:—

- (i) fix responsibility on the persons who had authorised and incurred expenditure in departure of the prescribed procedure viz., the completion of the detailed engineering-cum-traffic survey;
- (ii) find out the circumstances under which the authorisations were made; and
- (iii) to lay down procedures so that such departures do not take place in future.

Central Railway—Construction of a Third line between Tughlakabad and Palwal Railway Stations

Audit paragraph:

2.54. The charted and the practical capacities of the double line section between Tughlakabad and Palwal (38.44 kms.) on Delhi-Mathura section of the Central Railway and its utilisation during the year 1966-67 were 40, 36 and 34 trains respectively each way. The Railway Administration considered the provision of a third line necessary between Tughlakabad and Palwal in two phases between (i) Tughlakabad and Ballabgarh (18.30 kms.) and (ii) Ballabgarh and Palwal (20.14 kms.) with a view to avoiding detention to suburban and long distance trains and also for handling additional number of passenger and goods trains that might be introduced in future. In February 1968, the Railway Board approved of the inclusion of the work for provision of a third line between Ballabgarh and Tughlakabad section in the Works Programme for 1968-69 with the stipulation that the Railway should not enter into any commitments without prior clearance from the Board. In September 1968, the Railway Board enquired whether any improved signalling could be provided to increase the line capacity and enable more throughput in the section and, if subsequently it became a busy suburban section of Delhi area, whether the provision of automatic signalling would be essential. While the Chief Signal and Telecommunication Engineer considered that the problem would require closer examination, the Railway Administration informed the Railway Board in March 1969, that the contemplated improvement in the existing signalling would not increase the line capacity and that provision of automatic signalling could only be considered as a measure to increase the line capacity of the section. This, the Administration stated, would not eliminate the difficulties of operation caused an account of slow movement of suburban shuttle trains which effect adversely the punctuality of not only the fast passenger trains but also of the running of through goods trains as the existing two lines could not permit of segregation of fast moving and slow moving trains.

2.55. In May 1969, the Railway Board approved the provision of the third line between Tughlakabad and Ballabgarh on an urgency certificate. The abstract estimate of Rs. 2.79 crores for this work was sanctioned in July 1971 and this was revised to Rs. 3.61 crores in September 1973. The revised estimate for Rs. 3.61 crores was sanctioned in January 1974.

2.56. The provision of the third line between Ballabgarh and Palwal was also sanctioned by the Railway Board in January 1972 at an estimated cost of Rs. 1.59 crores. The works in both the sections were to be executed in such a way as to enable the commissioning of the third line for traffic on the entire Tughlakabad-Palwal section by 31 March 1972. However, due to delay in the execution of the work relating to the extension of the existing road overbridge at Ballabgarh station on account of change in the design from prestressed concrete girders to reinforced cement concrete slab girders, the third line was connected to the existing down main line on either side of the bridge by providing a temporary block cabin with signalling arrangements at a cost of about Rs. 1.39 lakhs in order to run the trains on the third line from April 1972. The third line was completed by September 1974 when the improvised signalling arrangements were discontinued. During that period an expenditure of Rs. 76 thousand was incurred on the operating staff employed on this cabin.

2.57. The table below shows the capacities provided in the section and the actual materialisation of traffic during the years 1966-67 to 1974-75:

Year	Charted capacity	Practical capacity (90 per cent of the charted capacity)	Number of passenger trains			Number of goods trains			Total No. of Trains
			Long distance	Shuttles	Total	Through	@Others	Total	
1966-67	40	36	15.0	4.0	19.0	13.0	2.0	15.0	34.0
1967-68	40	36	15.0	4.0	19.0	11.5	2.0	13.5	32.5
1968-69	40	36	15.0	4.0	19.0	13.3	3.0	16.3	35.3
1969-70	40	36	16.0	4.0	20.0	14.7	3.0	17.7	37.7
1970-71	40	36	16.0	4.0	20.0	14.9	3.0	17.9	37.9
1971-72	44	40	17.0	4.0	21.0	17.1	3.0	20.1	41.1
1972-73	*58/44	*52/40	18.0	4.0	22.0	17.3	2.0	19.3	42.3
1973-74	*58/44	*52/40	18.0	5.0	23.0	17.3	2.0	19.3	42.3
1974-75	*58/45	*52/40.5	18.0	5.0	23.0	16.3	3.9	20.2	43.2

@Including departmental, military and coaching special etc.

*Anticipated charted and anticipated practical capacities—58 and 52 trains respectively.

2.58. It would be seen from the table above that the section would have had charted capacity of 58 trains and practical capacity of 52 trains on provision of the third line from April 1972 but the actual charted and the actual practical capacities were substantially lower, namely, 44/45 and 40/40.5 trains during 1972-73 to 1974-75 because the third line is presently (December 1975) a non-interlocked line and has been opened for goods traffic only. Further, this line had not been fully ballasted until September 1974 resulting in restrictions on the speed of the goods trains to 45 kilometres per hour. (The line is stated to have been opened for passenger traffic also with effect from 24 October 1974 with speeds not exceeding 65 kilometres per hour.) The provision for interlocking in the sanctioned estimate for the third line in the section was Rs. 68.63 lakhs but these arrangements are still (January 1976) to be provided. The Railway Administration explained in January 1976 that signalling to standard III interlocking as provided for in the sanctioned estimate could be installed only after the station yards were remodelled.

2.59. While standard III interlocking has still to be installed, against the provision of Rs. 68.63 lakhs in the sanctioned estimate, the expenditure incurred on procurement of signalling stores was Rs. 35.08 lakhs upto March 1975.

2.60. The actual number of trains run is in excess of the number that can be run as per the practical capacity. It is possible to run more trains than the practical capacity if the criterion of speed is ignored. In consequence more trains have been run than the practical capacity involving detention too the trains in the section. Again, as the increased practical capacity is only slightly more than the capacity before the introduction of the third line, namely, 4.5 trains, the segregation of fast moving and slow moving trains has not been considered feasible; this would be possible only when the anticipated capacities (charted 58 and practical 52) are attained after completion of standard III signalling. Further, because of the delay in the provision of interlocking arrangements there have been restrictions on the speed of trains running on the third line and there has been no improvement in the running time of the trains between Tughlakabad and Palwal. Consequently, the benefit of the investment amounting to Rs. 5.11 crores on the laying of the third line has not been fully realised.

2.61. The Railway Administration stated (January 1976). "It will be possible in due course to generate the anticipated charted and practical capacities of 58 and 52 trains respectively when standard

III interlocking is provided at all stations between Palwal and Tughlakabad for the third line and the third line is ballasted properly for running the passenger and goods trains with maximum permissible speed on the section. The actual number of trains run has been slightly in excess of the practical capacity. However, this has always led to congestion in the section, heavy detention and regulation of trains affecting the speed of goods trains. Even though the increase in practical capacity has been of the order of about 4.5 trains after the third line was commissioned for slow traffic, it has helped in segregation of comparatively slow moving and less important trains on the third line whenever that traffic clashed with other fast moving and more important trains."

2.62. It further stated that running time of suburban and long distance trains depends on maximum permissible speed, types of traction, section to section running time (which does not change with the increase in the capacity of the section), flexibility of yards at either end to accept traffic and the extent of saturation of train services on the section. It also maintained that there had been no under-utilisation of the capacity as available with the present standard of signalling for the third line.

2.63. The non-achievement of the anticipated charted and practical capacities and the non improvement in the running times of the suburban and long distance trains between Tughlakabad and Palwal even after the provision of a third line at a cost of Rs. 5.11 crores (including expenditure on procurement of signalling stores) would appear to be due to delay in the provision of standard III interlocking for the third line.

2.64. The Railway Board stated (February, 1976) that the practical capacity was adequate to cater to the traffic available; but for creation of the third line, it would not have been possible to carry the additional traffic of six to seven trains; that segregation of slow moving shuttle trains from fast trains could not be fully done as standard III interlocking has not been installed on the third line due to constraint of funds and relative priority of work. It further added: "...the delay in commissioning standard III interlocking was not of much consequence inasmuch as even if substantial capacity had been created on the section ahead of commissioning of automatic signalling on Mathura-Palwal section, which feeds the traffic on to the section, the full benefits thereof would not have been realised."

2.65. It is mentioned that in May—June 1971, the Railway Administration undertook the survey for the extension of the third line

from Palwal to Mathura (83 kms). As the Signal and Telecommunication Department was of the view that the third line would present certain working difficulties in controlling the movement of trains on three proximate and interconnected lines on manual block and that past experience had proved that the third line operation could be exploited only by the control of all the routes of a section from one location or by judicious combination of automatic block and remote control, the Railway Administration suggested a survey for provision of automatic signalling as an alternative to the third line between Palwal and Mathura. This proposal was accepted by the Railway Board in May 1972. As a result of the survey, the Railway Administration recommended in July, 1973, the provision of automatic signalling with axle counters on Palwal-Mathura section with a flyover at Mathura as an alternative to the third line which was accepted by Railway Board in December 1973.

2.66. The proposal to take up this work has been under the consideration of the Railway Board (August 1975).

[Paragraph 16 of the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]

2.67. Explaining the reasons for constructing a third line between Tughlakabad and Palwal Stations, the Chairman, Railway Board has stated in evidence:

“The construction of the third line between Tughlakabad and Palwal was taken up. This is a suburban section of Delhi and there are, in addition to the long-distance trains, some shuttle trains and goods trains also. The practical capacity before this third line was taken up was for 36 trains and the projection was that by 1973-74 the need will go up to 45 and above. So, the question arose as to how the capacity would be increased and various methods were considered—whether it should be automatic signalling or a third line etc. It was found that while automatic signalling will increase the capacity, it will not solve the problem of segregating the slow-moving trains and the high-speed trains. Whenever suburban traffic is there, if long distance trains come, then even if it is five minutes late, the long-distance train is made to wait and the suburban train given clearance thereby adding to the further delays of long-distance trains. This is a phenomenon which is seen at the approach to all the cities except where separate lines are provided for suburban trains. Since capacity has to be increased in any case, it was found that providing a third line is the only way to segregate the slow-moving

trains and the fast trains so that the punctuality of the long-distance trains can be kept up and, at the same time, the capacity is created. That was the reason for having this third line."

2.68. The Committee asked whether other alternatives to the laying of a third line such as improved signalling etc., were considered. To this, the Chairman, Railway Board has replied:

"We considered various alternatives and we found that the only alternative by which we could increase the capacity as well as segregate the slow moving trains from the long distance trains was only this third line."

2.69. In the same context, the witness has further added:

"There was another view.....The Signalling Department had a view that capacity can be increased, not necessarily by a third line but by putting up the automatic signals....Automatic signal was a process by which one train can go and another train can follow by breaking the distance between the stations. But our object was that the long-distance train should go on and simultaneously with this slow moving train should go on the other line. That could not be done by the automatic signalling and when the idea that the third line was for segregating the slow moving trains was given, the Signalling Department also felt that that was all right. So a decision was finally taken."

2.70. The Committee asked whether the decision to go in for a third line rather than making improvements in signalling, was based on grounds of economy or of efficiency. The Chairman, Railway Board has stated:

"At the approach to the big cities, suburban traffic gets separated from the long distance fast traffic. This upsets the long distance traffic and it slows down the traffic. That is why the third line. We would not have done it if the additional capacity was not required. It was to be created. And so, the third line was the only alternative."

2.71. In reply to a question whether all the alternatives had been thoroughly discussed in the Railway Board before taking a final decision, the Member Traffic stated:

"If I may say so, all these projects are carefully examined where there are alternative means of developing the

capacity. For instance, if you take a section in a single line, when the traffic increases on it and if it is more than the capacity of the single line, then we have various methods of doing this thing. First we split up the long block sections by creating more stations and crossing facilities and by improving our signalling facilities so that the traffic does not suffer. Then we go for doubling when the single line capacity is saturated. Signalling is not the only solution. For example, we have four lines between Asansol and Howrah, four lines on the Sealdah side and eventually even in the Delhi Metropolitan complex we would require four lines."

2.72. During evidence the Committee enquired whether before taking a decision in regard to the construction of third line, the projections made in certain reports such as the Report published by the Ministry of Works & Housing on the National Capital Region Plan and the suggestion for developing a dry port near Delhi were taken into account. The Chairman, Railway Board has stated that **although they had an idea** as to what will be the development of the suburban traffic in Delhi-Palwal section, these reports had not been specifically studied.

2.73. Clarifying the position, the Member Traffic has stated:

"Regarding the dry port, as far as I recall, the discussions have been going on since about 1966-67 and no finality has been reached regarding the location of the dry port. There is a proposal and various States which were participating in those discussions have suggested the location of the dry port within their respective States. There is a suggestion from Rajasthan, there is a suggestion from Haryana, also there is a suggestion from U.P. that it should be in Ghaziabad but the location of the dry port has not yet been finally decided. So, at the time when this line was conceived, the decision of the dry port was not there. So, it could not have had any influence on the sanction and construction of the third line. Regarding the report of the Ministry of Works and Housing on the development of the National Capital Region, I do not think that at the stage at which the third line was sanctioned, any such scheme was under consideration. In fact, I do not think that the schemes for the National Capital Region have yet been finalised."

2.74. On being pointed out that since the location of a dry port was going to be near Delhi at the time of laying down the third line, this fact should have been taken into account, the Member Traffic has stated:

“The traffic is already moving to the wet ports of Bombay and Kandla. The setting up of a dry port would not necessarily generate additional traffic. It will help the trade all right. We should not assume that the mere setting up of a dry port would give a fillip to the utilisation of the third line even it is near the third line.”

2.75. Asked whether the location of an oil refinery in Mathura was taken into account, the witness has replied:

“This has come into consideration in the last three or four years only. Until the Mathura Refinery is set up the crude will be brought to Salaya on the West Coast and will be brought to Kayali Refinery and then finished products moved on to northern India.

The moment the Mathura Refinery is set up, the movement of all finished products from the existing refineries other than Mathura will cease. All the crude will come to Mathura by pipeline and from there it will be distributed to the northern India. If the transportation from Mathura refinery is by rail, it will give additional traffic on Mathura, Palwal, Delhi line. If the project fructifies, we may have to quadruple the line.”

2.76. According to Audit, the proposal for the provision of third line between Palwal and Tughlakabad was approved and sanctioned not as one single work but as two different works. The work approved first was the provision of third line between Tughlakabad and Ballabgarh and this was included in 1968-69 Final Works Programme. The work of providing third line between Ballabgarh and Palwal was approved later as an ‘out-of-turn’ work in the year 1971-72. The justification for the former work was based on additional traffic of 2 long distance passenger trains, 3 passenger shuttles and 5 goods trains. The latter work was justified on the basis of additional traffic of 2 long distance passenger trains, 3 passenger shuttles and 9 goods trains.

2.77. The Committee desired to know as to how many additional passenger (long distance and shuttles), goods, departmental and other trains were anticipated in the future in justification for this

work in 1969 and whether this anticipated traffic did materialise during 1972-73 to 1975-76. In a note, the Ministry of Railways have stated:

“The following were the projections of traffic when the schemes were sanctioned for Palwal-Tughlakabad section:

PALWAL—TUGHLAKABAD SECTION

Projected traffic for 1973-74 :

Long distance passenger trains	17
Shuttles	7
Goods	22
Departmental and others	2
	48

The actual materialisation of trains from 1972-73 to 1975-76 is as under :

Year	Anticipated capacity	Actual materialisation			
		Passengers	Shuttles	Goods & others	Total
1972-73	52/40	18	4	19.3	41.3
1973-74	52/40	18	5	19.3	42.3
1974-75	52/40.5	18	5	20.3	43.2
1975-76	52/40.5	18	5	21.5	44.8

In the case of long distance passenger trains not only the anticipated traffic has materialised but in fact one additional long distance passenger train has been introduced. In the case of shuttles, there has been a shortfall of 2 trains. This is on account of the fact that additional shuttle trains could not be introduced on account of the lack of terminal capacity in Delhi area. In the case of goods trains, there was a shortfall of 4.7 trains in 1973-74 and 2.2 trains in 1975-76 mainly on account of the non-materialisation of the anticipated coal traffic. It was anticipated that 4 additional trains of coal will materialise while working out the traffic projections of the scheme which did not materialise in 1973-74.”

2.78. Since 4 additional trains of coal did not materialise by 1973-74 as expected, the Committee desired to know who supplied the data for coal movement and when. In a note, the Ministry of Railways has stated:

“The information was indicated in the discussions held in the room of Secretary, Department of Mines and Metals on 7-10-70.... a total of 5.3 million tonnes of coal traffic was required by various power houses. Against this the optimum projection from Singrauli fields was expected to be 3.2 million tonnes, the balance of 2.1 million tonnes in 1973-74 being made good from the Korea-Rewa fields.”

2.79. The Record of Discussions held on 7 October 1970 is given below:

“The question of movement of coal from Korea-Rewa coal-fields to Delhi, Punjab and other power stations in North India was then considered. On behalf of the Railways, it was stated that the doubling of the track was going on and has been completed upto 80 per cent and that it would be ready for movement to northern India in another two years. The Railways had no objection to move coal to the extent of 2 million tonnes from Central India Coal-fields from 1972 so as to feed the North India power Stations, provided Singrauli coalfield is developed to the extent of 3 million tonnes so as ensure adequate movement in Singrauli-Obra line.

It was represented by the Central Water and Power Commission that some of the power stations had already designed their boilers to burn low grade coal and that redesigning the boilers to consume Rewa-Korea coal would lead to increased cost. It was decided that in the case of boilers which have already been designed, the question of cost of redesigning the boilers and who should meet such cost should be gone into in details by the Central Water and Power Commission and Planning Commission. In the case of the other boilers, it should be possible to start to design afresh. Roughly, it was estimated that the cost of re-designing the boilers would be of the order of Rs. 3 to 4 lakhs per boiler.

After discussion, it was considered whether from the view point of the National Coal Development Corporation it

would be profitable to reopen the closed mines or fully utilise capacity in the Korea-Rewa coalfields with marginal investment rather than invest afresh in the Singrauli area. This would have the advantage of deferring further investment in Singrauli apart from Gorbi and Jhingurdah by a period of few years. It was upto the power authorities to redesign the boilers so as to take in Korea-Rewa coal. If they did not take Korea-Rewa coal, the coal requirements for the North India power houses beyond what could be produced from Jhingurdah and Gorbi would have to be met from Bengal-Bihar area. But the Railways had already made it clear that the additional movement from Bengal-Bihar would not be possible after Bokaro is commissioned. During discussions, it was pointed out that National Coal Development Corporation could, if necessary, consider the question of sharing the cost of redesigning the boilers."

2.80. In regard to the movement of Central India Coal towards the new thermal power units at Faridabad and Panipat via the third line, the Member Traffic has stated:

"In 1970 we were given an indication that coal for Bhatinda Gurunanak Plant and Badarpur Plant will come from Central India. This coal will come via Katni, Bina, Jhansi to Delhi. We were anticipating about four trains of coal but the traffic is short-by about three trains. Had it materialised, we would have got three more additional trains."

2.81. Asked about the reasons for non-materialisation of coal traffic, the witness has replied:

"Delay in fruition of the Thermal Power Projects is one of the reasons. Badarpur, Bhatinda are not taking full quantity. Now we have linked Panipat Power House also with Central India."

2.82. Asked if the Railways had realised that the traffic would not materialise, the Member Traffic has stated:

"When there is indication by the Department of Mines and when Thermal Projects are cleared by Planning Commission, we assume that traffic will come and we have to provide the infra-structure for coal transport and so on."

2.83. When the scheme for third line between Tughlakabad and Palwal was sanctioned it was anticipated that 7 shuttles will have to run in the section by 1973-74. However, only 5 shuttles have actually materialised. This shortfall of 2 trains has been attributed by the Railway Board to lack of terminal facilities in Delhi. The Committee enquired whether action was taken at the time of sanctioning the project for the third line to simultaneously provide for adequate terminal capacity in Delhi area for reception of the projected additional shuttles. The Chairman, Railway Board, has stated:

“At the moment we are on the task of developing capacity in New Delhi for running more shuttles. A scheme has been sanctioned and the work has already begun.”

2.84. The Committee enquired whether any estimates had been sanctioned for increasing the terminal capacity in Delhi and if so, when. In a note, the Ministry of Railways has stated:

“The work for the provision of one stabling line, one goods line and additions and alterations to the station building at Nizamuddin Station was sanctioned at a cost of Rs. 23.12 lakhs on 18-7-75. The work has since been completed.

Surveys were sanctioned for development of passenger terminal facilities at New Delhi and Delhi Main Stations at an estimated cost of Rs. 83,233 on 13-6-74.

The work of provision of additional passenger terminal facilities at New Delhi-Phase I has been included in the budget for 1976-77 at a cost of Rs. 55.10 lakhs.

Shifting of coke, cement and fruit traffic from New Delhi to Tughlakabad, Shakurbasti and Azadpur respectively with a view to provide additional space for development of passenger facilities at New Delhi has been included in the budget for 1976-77 at a cost of Rs. 114.72 lakhs.”

2.85. From the figures given in the Audit paragraph it is seen that the Tughlakabad-Palwal Section was to have chartered capacity of 58 trains and practical capacity of 52 trains on provision of the third line from April 1972. The actual chartered/actual practical capacities during the years 1972-73, 1973-74 and 1974-75 were, however, respectively 44/40, 44/40 and 45/40.5. The Committee desired to know the

reasons for this shortfall. The Chairman, Railway Board, explained during evidence:

“...the third line was opened as a slow line because whenever we open a new line, we first open it as a slow line and after it stabilises and after some capacity having been developed then only we go to the remodelling of yards and effect changes in the signalling. If we start the yard re-modelling and changing of the signalling, without the facility of the third line as a slow line, it would impinge upon the existing capacity.

That is the normal practice. The practice is to double it and then to have the new line as a slow line and then with full speed and inter-locking and all that. This capacity of 40.5 was in the intermediate stage.”

2.86. According to the projections of traffic the Tughlakabad-Palwal Section was expected to cater to 48 trains by 1973-74. The charted and practical capacities proposed to be created on the section by the construction of third line were respectively 58 and 52. The Committee desired to know as to why the charted and practical capacities proposed to be created on the Tughlakabad-Palwal Section were 58 and 52 respectively even though the projected traffic for 1973-74 which it was to cater to was only 48. In a note, the Ministry of Railways have explained:

“The possible alternatives for improving the line capacity were the provision of intermediate block signalling, automatic signalling or the construction of a third line. The signalling alternatives were ruled out as they did not suit the specific traffic requirements of the section. The traffic was of a mixed nature viz. slow moving shuttle trains, goods trains and very fast mail and express trains, which were required to overtake each other and hence the need for segregation of slow and fast trains. It was, therefore, decided to adopt the alternative of the third line, which with standard III signalling gave 58 charted and 52 practical paths respectively. The only possible intermediate stage was the provision of a lower standard of signalling on the new line in the initial stages and the same was adopted which generated 5 additional paths to meet the immediate traffic requirements. Standard III is now being provided as the traffic has already exceeded the capacity generated with rudimentary signalling. It will be appreciated that a set of additional facilities results in the creation of certain number of additional paths and it

is not always possible to tailor the facilities to exactly match the number of paths actually required."

2.87: It is seen from the Audit Report that according to the Railway Administration there has been no under-utilisation of the capacity as available with the present standard of signalling for the third line. It is, however, seen that against the revised estimated cost of Rs. 5.20 crores the actual expenditure on the third line between Tughlakabad and Palwal to the end of March 1976 was Rs. 4.94 crores. In other words, nearly 95 per cent of the sanctioned amount has already been incurred. The investment envisaged was intended to create a charted capacity of 58 and a practical capacity of 52 trains. The actual materialisation of the capacity even in 1974-75 has been only 45/40.5. In regard to the opening of the third line and its utilisation, the Chairman, Railway Board, has stated during evidence:

"The third line was started in 1971 and it was done as a slow line in March 1972. Always whenever we take up doubling, we first open it up as a low line because after a certain capacity is created, then only we can think of making it a fast line. Otherwise the existing facilities will also be lost. Our traffic has not grown as fast as we expected because instead of getting about 9-10 goods trains extra, we got only 7 goods trains extra. At the same time, from 1973-74 onwards, there was a big cut on our line capacity works. The amount of money for line capacity works all over India was drastically reduced as an anti-inflationary measure and we had to pick and choose which is very much more urgent and very much more immediately required and, therefore, this work of providing a third line after opening a slow line did not progress as fast as it should have. Now the standard III signalling will be completed soon and already two stations have been completed and in other three stations it is being taken up."

Extension of over-bridge at Ballabgarh.

2.88. The Audit paragraph points out that there had been delay in the execution of the work relating to the extension of the existing road overbridge at Ballabgarh station on account of change in the design from pre-stressed concrete girders to re-inforced cement concrete slab girders. Explaining the reasons for the change in the design and the delay in the execution of the work, the Chairman, Railway Board, has stated in evidence:

"This is a road overbridge on the Delhi—Agra National Highway for which, according to rules, the design had to be

got cleared from the Ministry of Transport and we had to get their approval for the drawings and the designs.

"We asked for the approval from the Ministry. The Railway had provided for the pre-stressed concrete girders for the expansion of the overbridge. But, then when we went to the Ministry of Transport in August 1971, they replied on 9-6-72 that they did not agree to the pre-stressed concrete but they agreed to the RCC Slab. That is how the delay occurred. Then the design for the RCC Slab had also to be approved by the Ministry of Transport. We make out the designs etc. and they are to be sent to the Transport Ministry. Finally, they approved them only on 13-11-72. This delay occurred because of change in the design made by the Transport Ministry on what we have done."

2.89. Asked what could be the reason behind the change suggested by the Ministry of Transport in the girders, the Chairman, Railway Board, has stated:

"As an engineer, I am not able to give a precise reply for this. I would have thought that both the pre-stressed concrete or ordinary reinforced slab would have served the purpose."

2.90. In reply to a question whether the change in design of girders affected the cost, the Chairman, Railway Board, has stated:

"There was not much of a difference in the cost. The method of construction was entirely different.

2.91. In a note subsequently furnished to the Committee, the Ministry of Railways have stated:

"The change of design was asked for by the Ministry of Transport on the grounds that the computation involved in the design analysis of an isotropic skew plate are cumbersome and are unsuited for use in a small design office for a relatively minor structure. They felt that for the bridge in question adoption of a solid slab instead of the pre-stressed concrete beam and slab grid would be preferable from the point of view of simplicity of design.

The RCC slab design was found to be marginally cheaper by Rs. 5000 as compared to the pre-stressed concrete design."

Signalling works.

2.92. According to Audit paragraph, the actual charted and actual practical capacities even after the construction of third line have

been substantially lower because the third line is a non-interlocked line. The Committee asked when the inter-locking of this line had been provided for in the sanctioned estimate, why was it not installed along with the construction of the third line. The Chairman, Railway Board, has stated:

“We do this work of interlocking in stages. We first provide third line, create some capacity to relieve the existing traffic in that line; otherwise there will be disturbance but without disturbance interlocking cannot take place. So, firstly we create that extra capacity and then we do the interlocking. Normally it would have been done within a year or so. It is true in this case we have taken longer time, no doubt. But the reason is that the expected additional goods traffic did not come and traffic growth was not proportionate. But then the demand for funds in various other critical sections was there. There the traffic was also more and the funds were utilised there. That was also the reasons.”

2.93. Asked whether the capacity of third line could be fully exploited without provision of Standard III interlocking, the Chairman, Railway Board, has stated:

“The full capacity cannot be utilised without Standard III interlocking. The question is: when the time would come to utilise that full capacity? Now we are not getting traffic which we expected in 1973-74.”

2.94. The Audit para states that Standard III interlocking had not been installed on the third line due to constraints of funds and relative priority of works. The Committee asked if Standard III interlocking was essential for the achievement of the practical capacity envisaged, how could the interlocking be assigned lower priority in execution. In a note, the Ministry of Railways have stated:

“The natural sequence of operations for constructing the third line was:

- (i) to lay the third line on the western side with rudimentary signalling and to link it up with the existing yards;
- (ii) to carry out yard remodelling to suit the operations after the commissioning of the third line; and
- (iii) interlocking of the third line to Standard III signalling.

This sequence has been followed in the execution of the work. The third line has already been laid and commissioned with rudimentary signalling in the entire length. Yard remodelling at 3 of the stations has been completed and is in progress on the remaining 3 stations. At such of the stations where yard remodelling work has been completed, Standard III interlocking has also been taken up."

2.95. The Audit paragraph states that the provision for interlocking in the sanctioned estimate for the third line in the section was Rs. 68.83 lakhs but these arrangements had not been provided. The Committee called for details of the upto date expenditure on procurement of signalling stores and works executed in connection therewith. The Railway Board have informed the Committee that the total expenditure on procurement of signalling stores and works connected therewith upto June 1976 was Rs. 62.32 lakhs. The break-up of the expenditure is as given below:

(Rupees in thousands)

Year	Palwal-Ballabhgarh (third line)			Ballabhgarh-Tughlakabad (third line)			
	Other than stores	Stores	Total	Other than stores	Stores	N. Rly.	Total
1970-71	9	256	..	265
1971-72	..	18	18	68	1483	..	1551
1972-73	78	344	422	195	145	3 5 2	665
1973-74	13	183	196	30	-78	397	349
1974-75	-77	638	561	-66	1257	108	1229
1975-76	187	844	1031	72	-579	80	-427
1976-77 (Upto June 1976)	97	151	248	2	52	..	54
	298	2178	2476	310	2536	910	3756

2.96. The Committee asked during what period the expenditure on signalling works, other than on acquisition of stores, was incurred. In this connection, it has been stated:

"Expenditure for carrying out signalling works was incurred in 3 phases as given below:

- (1) Phase I between January and March 1972—The Section was opened for non-interlocked working, with minimum signals at a cost of Rs. 2.76 lakhs.
- (2) Phase II (a) Subsequently between September and December 1974 expenditure was incurred to commission slow passenger traffic in this Section.
- (3) Phase II (b) Expenditure incurred between April and May 1976 to remodel Palwal and Asaoti yards to final stage with lower quadrant signalling at a cost of Rs. 10.34 lakhs.

Subsequently the work of colour light signalling in Junction Cabin at Tughlakabad was also undertaken and this was commissioned on 6-10-76 at a cost of Rs. 6.1 lakhs."

2.97. It is observed that out of Rs. 68.63 lakhs provided for in the estimate for standard III interlocking, a sum of Rs. 35.08 lakhs was spent on procurement of signalling stores till March 1975. The Committee therefore enquired that when it was decided to accord lower priority to Standard III interlocking, whether any instructions had been issued to slow down the procurement of signalling equipment. In a note, the Ministry of Railways have explained thus:

"It takes considerable time to procure signalling materials and it is therefore necessary to plan procurement of these materials well in advance. Orders were therefore placed for supply of the materials and expenditure to the extent of Rs. 35.08 lakhs was incurred upto March 1975 on the cost of these stores."

2.98. As a result of non-provision of interlocking arrangement the practical capacity on the Tughlakabad-Palwal Section has not increased to the desired extent with the result that the segregation of fast moving and slow moving trains has not been considered feasible. Further, because of the delay in the provision of interlocking arrangements there have been restrictions on the speed of trains running on the third line and there has been no improvement in the running time of the trains between Tughlakabad and Palwal. However, it is seen from the Audit Paragraph that the trains had actually run on the section during 1971-72 to 1974-75 more than their practical capacity. The Committee asked whether this had not led to detention of trains and congestion in the station yards. The Chairman, Railway Board has stated:

"It is true that when compared to the practical capacity which this third line has now provided we are running

two to three trains more than the practical capacity. On account of this in 1973-74 and 1974-75 the average speed had come down to some extent but this was a phenomenon not only on this section but it was so on various other sections of the Indian Railways on the trunk routes. This phenomenon had taken place either due to growth of traffic or in certain section there have been certain difficulties. It is not peculiar to this section."

2.99. In a note subsequently, furnished, the Ministry of Railways have stated:

"It is a fact that the utilisation of line capacity in 1971-72 to 1974-75 was marginally higher than the practical capacity assessed on the basis of 90 per cent of the charted capacity. It is also true that with greater utilisation of the sectional capacity, the overall speeds of trains tend to come down. It may, however, be pointed out that the utilisation of the capacity is more than 90 per cent on a route length of about 5000 kms. on the Indian Railways. With the limited resources available for development of line capacity, a judicious allocation of resources has to be made to those sections where the need is most. In the case of Palwal-Tughlakabad Section, now that the section has become more or less saturated, the work of providing standard III interlocking with colour light signalling has been taken up and on completion will provide the necessary relief."

Automatic Signalling on Mathura-Palwal Section.

2.100. It has been stated that the delay in commissioning standard III interlocking was not of much consequence inasmuch as even if substantial capacity had been created on the section ahead of commissioning of automatic signalling on Mathura-Palwal Section, which feeds the traffic on to the section, the full benefits thereof would not have been realised. In this context, the Committee enquired if traffic on Palwal-Tughlakabad Section was dependent on the flow from Mathura side, how did the Railway Board justify the provision of facilities on Palwal-Tughlakabad much ahead of the provision of additional facilities on Mathura-Palwal Section and in fact before the line capacity works on Mathura-Palwal Section had been sanctioned. The Chairman, Railway Board has stated during evidence:

"As far as long distance trains and goods trains are concerned, the Tughlakabad-Palwal section is depending on the

Mathura-Palwal Section. That is why we have already planned and started the work on automatic signalling between Palwal and Mathura so that as the traffic develops, we will be able to carry the traffic."

He has added:

"We have already started the work between Mathura and Palwal and we will also be completing about 5 intermediate stations in about a year's time. Of course, that will keep pace with the traffic growth on the Mathura-Palwal Section. It will flow into the Tughlakabad-Palwal Section and I can assure you that the work of automatic signalling on the Mathura-Palwal Section will be so progressed that there would be no interruption to traffic."

2.101. The Committee asked what was the increase in traffic on Mathura-Palwal Section to justify the provision of automatic signalling. In a note, the Ministry of Railways have stated:

"The chartered capacity of Mathura-Palwal section is 40 trains. The actual utilisation in 1975-76 was 39.8 trains. The projected traffic on the section in 1980-81 is 21 passenger trains, 28 goods trains and 2 others: Total—51. Capacity of 59 chartered paths will be created after the work of providing automatic block signalling is completed on Mathura-Palwal section and 53 practical paths will become available."

2.102. It is seen from the above that the projected traffic on the Mathura-Palwal section in 1980-81 is a total of 51 trains. Capacity to cater to this volume of traffic will be created only by that time. The Committee therefore asked whether this implied that the Tughlakabad-Palwal section with a chartered capacity of 58 and practical capacity of 52 trains would continue to remain underutilised even after the installation of standard III interlocking in 1977 till the line capacity of the Mathura-Palwal section was actually increased. The Chairman, Railway Board, has stated:

"It is true that the figure of traffic capacity that will be generated between Tughlakabad-Palwal and Mathura-Palwal is the same. What are the alternatives between Tughlakabad and Palwal? We have to create capacity in any case, whether it is 10, 12 or 36. The only facility is the third line. It creates a 52-train capacity, but so long as the capacity required is such that it could not be developed by anything other than the third line, it was inevitable. As and when the capacity between Mathura-Palwal comes, it will flow into this section."

2.103. In a note, subsequently furnished to the Committee, the Ministry of Railways have stated:

“The work of provision of automatic signalling on Mathura-Palwal section is in progress. In the first instance, the capacity on Mathura-Palwal section is expected to increase to 48 charted and 43 practical, on completion of works of splitting six block sections with axle counters by March 1977. Taking into account 5 shuttles on Palwal-Tughlakabad section, the utilisation of capacity on this section can increase upto 48 trains each way by March 1977 in the first instance. This will increase further with the commissioning of automatic signalling on Mathura-Palwal Section.”

2.104. The Committee enquired whether the increase in traffic between Mathura-Palwal section justified the provision of automatic signalling. The Chairman, Railway Board, has stated:

“Yes, Sir. Our projections are there and if traffic will be increased, for that we can do in stages. Suppose there are two stations, we can break that section into two parts or three parts depending upon the number of trains running between those stations. But we will only break them into minimum number of parts so that our expenditure will keep pace with the work.”

2.105. The Committee desired to know how many passenger express trains and shuttle trains were presently running between Tughlakabad and Palwal and between Palwal and Mathura Junction. The Committee was informed that between Tughlakabad and Palwal, 18 long distance trains and 5 shuttle trains were running and between Palwal and Mathura Junction, 18 long distance trains were running. There was no shuttle train beyond Palwal.

2.106. It is seen from the Audit paragraph that the Railway Administration undertook a survey in May-June 1971 for the extension of the third line from Palwal to Mathura. However, on the suggestion of the Signal and Telecommunication Department, the Railway Board agreed to the provision of automatic signalling as an alternative to the third line between Palwal and Mathura. The Committee have learnt from Audit that the signal and Telecommunication Department had pleaded for the provision of automatic signalling instead of a third line on the following grounds:

“(i) Provision of a third line between Palwal and Mathura will cause difficulties if it is to be worked on Manual Block

with several cross-overs provided for changing over from one line to the other at the necessary intervals.

- (ii) With Automatic Block provided on the present Up and Down lines, we can obtain more than the capacity required by 1980-81 and further, the speed and through-put on this section will improve as compared to the third line alternative, and
- (iii) Since both economic and operational efficiency are clearly in favour of the Automatic Block, we (Signal and Telecommunication Department) should waste no further time on preparing estimates and plans for the third line, but instead the Survey Team should concentrate on the study of the cheaper and more efficient alternate."

2.107. While recommending the provision of automatic signalling on Mathura-Palwal Section, the Administration had said that the operation under automatic block would be more beneficial in terms of speed and through-put as compared to three line operation of Manual block. The Committee asked whether this observation was not applicable to Palwal-Tughlakabad section. To this, the Chairman, Railway Board, has replied:

"The automatic signalling is also to increase the capacity, and since the capacity of Tughlakabad to Palwal with this third line will match the capacity of entire Delhi with automatic signalling, we will not go in for extra expenditure for automatic signalling between Tughlakabad and Palwal."

2.108. It has been stated that a capacity of 59 charted paths will be created after the work of providing automatic block signalling was completed on Mathura-Palwal section. Asked whether Railway Board contemplated eventual provision of automatic block signalling in Palwal-Tughlakabad section, the Chairman, Railway Board, has stated:

"No Sir. We may not have automatic block signalling on Palwal-Tughlakabad section. But with this third line, the type of signalling we are providing there, we will be able to match the capacity on the Mathura-Palwal section."

Segregation of slow-moving trains and selection of a common line.

2.109. One of the main reasons given for the construction of the third line was that it will facilitate the segregation of slow moving

trains from the fast moving trains. The Committee asked whether it had been possible to segregate slow moving trains from the fast moving trains and whether all the slow moving trains were running on the third line. The Chairman, Railway Board, has stated:

“Yes, Sir. When the slow train goes there is no interference with the fast trains. They can go also on main line. When the fast trains go, they are judiciously run and controlled.”

2.110. The Committee desired to know how many trains (passengers, goods and shuttles) were presently running in the section between (i) Tughlakabad and Ballabgarh; (ii) Ballabgarh and Palwal; and (iii) Palwal and Mathura Junction and how many of those were slow moving trains. The Committee also enquired whether all the slow moving trains in these sections had been segregated and whether they were all running on the third line. In a note, the Ministry of Railways have stated:

“The number of trains running on the section at present (1975-76) is given below:

Section	Passenger	Shuttle	Total	goods including others	Grand Total
Tughlakabad—Ballabgarh	18	5	23	21·8	44·8
Ballabgarh—Palwal	18	5	23	21·8	44·8
Palwal—Mathura Jn.	18	..	18	21·8	39·8

3 Dn. shuttles and 1 Up shuttle are programmed to run on the new third line. In addition, 7 to 8 goods trains are also run on the third line. The slow moving trains are allowed to move on the existing main lines when they do not clash with other long distance and more important trains and they are run on the slow line when the path is not available on the main line.”

2.111. The construction of the third line between Tughlakabad and Palwal was sought to be justified both for increasing the line capacity as well as for the purpose of segregation of slow moving traffic. A third line was preferred to the automatic signalling which could increase line capacity only but would not facilitate segregation. After the construction of the third line it was, therefore, essential for purposes of segregation of slow moving traffic from fast

moving traffic to earmark one of the three lines for slow moving traffic and to reserve the other two lines for fast passenger and goods traffic in Up and Dn. directions. The Committee asked as to which of the three lines was to be treated as the common line for segregation of slow moving traffic. The Chairman, Railway Board, has stated:

“In the early stages, it was thought that the middle line should be the common line. That is, out of the three lines, the two extreme lines would be for up and down traffic and middle line would be common line. That was the concept in the early stages. There has been a change in the concept and it has finally been decided that the third line, i.e., the western most line should be the common line for up and down traffic.”

2.112. Questioned as to when the decision that one of the three lines would be used primarily for slow moving traffic was taken, the Chairman, Railway Board, has stated:

“The original estimate of 1969 was with a flyover and with a middle line as the common line. That continued to be so till about 1975. In 1975, after opening this new line as a slow line, it was considered that since the required traffic was not there, the funds earmarked for other works on this section could be diverted for some more urgent works. That being the case, the whole question was re-examined and it was felt that it was not necessary to spend money on the flyover.”

2.113. It will be seen from above that it took about 6 years to decide as to which should be the common line. The chronology, furnished at the instance of the Committee, of the proceedings which led to the decision regarding the common line is reproduced below:

- 16-9-69 . . . Central Railway informed the Board that it had not been possible to finalise the estimate as a decision had not been taken whether the Central or Western line should be the common up and down line. Provisionally, it had been decided to have the central line as the common line and a flyover at Tughlakabad which would push up the cost by Rs. 85 lakhs. The railway proposed to discuss the subject in the Works Programme meeting on the 13 and 14 October, 1969.
- 8-10-69 . . . A detailed note recommending central line as the common line and a fly-over at Tughlakabad submitted by the Railway.
- 15-1-70 . . . Board approved the proposal for having the central line as the common line and for providing a fly-over at Tughlakabad as material modification of the main scheme. Approach gradients of the fly-over to be 1 in 100. Double-entry into the yard under the fly-over not to be provided.

- 6-7-70 . . . Double entry into the yard approved in partial modification.
- 24-9-70 . . . Estimate for Rs. 271.44 lakhs submitted by the Central Railway making provision for the central line as the common line and a fly-over at Tughlakabad.
- 12-1-71 . . . Revised estimates for Rs. 278.90 lakhs received.
- 19/20-4-71 . . . Sanction for the estimate for Rs. 278.38 lakhs issued.
- 13-7-71 . . . Minister for Railways approved inclusion of Palwal-Ballabgarh III line in the Budget.
- 27/28-7-71 . . . Urgency Certificate for Ballabgarh-Palwal III Line sanctioned.
- 29-11-71 . . . Estimate for above providing for western line as the common line received.
- 13/14-1-72 . . . Estimate for Ballabgarh-Palwal III line sanctioned for Rs. 158.98 lakhs with provision for western line as common line.
- 19-2-72 . . . A detailed letter from the General Manager, Central Railway recommending signalling of the new line on the western side as the common up and down line and dropping the proposal of fly-over. Saving of Rs. 42 lakhs envisaged apart from early completion of the scheme and other advantages. Also pointing out that the common line on Ballabgarh-Palwal Section had already been approved on the western side.
- 28-2-72 . . . Northern Railway agreed with Central Railway's proposal for provision of the third line on one side of the 2 main lines.
- 30-3-72 . . . Third line between Palwal and Ballabgarh opened to goods traffic with a temporary cabin and a single line at road over bridge. Total time taken 156 days for a length of 21.4 km. as work started after rains on 24-10-71. Construction of temporary block stations on the section avoided.
- Work on Ballabgarh-Tughlakabad line also completed and opened for goods traffic on 31-3-72.
- 28-6-72 . . . Clarifications sought from the Central Railway about the merits of having the central or the western line as the common line.
- 12-8-72 . . . A detailed letter from Central Railway in reply to Board's letter dated 28-6-72—signalling of the western line as the common line strongly recommended.
- 11-9-72 . . . Further clarification sought from the Central Railway about the extent of saving in cost if their proposal is to be accepted.
- 13-10-72 . . . Difference in cost explained by Central Railway.
- 4-12-72 . . . Railway advised that the original plan conceived by them after due consideration, should stand.
- 19-8-75 . . . Board conveyed to Central Railway to retain the western line as the common line as already commissioned, provide Standard III signalling and freeze the work in view of slow growth of traffic and severe constraint of resources.

2.114. From the above it will be seen that on 19 August 1975 the Railway Board conveyed to the Central Railway to retain the western line as the common line as already commissioned, provide Standard III signalling and freeze the work on Palwal-Tughlakabad Section. The Committee desired to know on what considerations the

decision to freeze work on Palwal-Tughlakabad Section was taken and asked whether this would not lead to continued under-utilisation of the assets already created. In a note, the Ministry of Railways have stated:

"The decision taken was to phase out the work on the colour light signalling and also on the fly-over at Tughlakabad. The main consideration behind this decision was inadequate availability of funds under 'Line Capacity' works and consequent need to phase expenditure within the available resources, at the same time to obtain the maximum capacity needed to meet traffic demands. This decision has not resulted in under-utilisation of the assets already created. Availability of further capacity would be dependent on the provision of Standard III Interlocking, which is being progressed as the remodelling of yards is getting completed. Standard III Interlocking has since been commissioned at Palwal and Asaoti."

2.115. The Committee observe that the construction of a fly-over at Tughlakabad at an estimated cost of Rs. 66.91 lakhs had been provided in the estimates but it was subsequently decided not to construct the fly-over. Explaining the reasons for not providing the fly-over, the Chairman, Railway Board, has stated:

"Fly-over would have been necessary if the middle line was used as common line because there would have been cross movements. But when the extreme end line is used as common line, there is no need for a fly-over."

2.116. The Committee have been informed by Audit that the third line was built with second class 90 lb. rail between Palwal and Ballabgarh and cannot carry fast traffic unless the track is relaid with new 52 kg. rails. The Committee asked whether it could be taken that the new third line had been earmarked for the segregation of slow moving traffic. But on the other hand if it was to handle fast moving traffic why was it built with 90 lb. second-hand rails instead of with 52 kg. rails. The Chairman, Railway Board, has stated:

"That is a very valid point. When the estimate was sanctioned in 1969, the Tughlakabad-Palwal portion constituted of two sub-portions, one Tughlakabad to Ballabgarh and the other Ballabgarh to Palwal. The idea at that time was that the new line will be fast line and the middle line will be the up and down slow line and a fly-over was also provided. But while doing the Ballabgarh-Palwal

line, the new line was provided with second-hand material which really meant that the line cannot be the fast line."

2.117. Asked about the reasons for the change, the witness has stated:

"Perhaps at that time they must have thought that at Ballabgarh there can again be a switchover. It was not a rational step in any case."

Yard remodelling works.

2.118. The Committee were informed that the remodelling of the station yards formed part of the main estimate which were sanctioned for Tughlakabad-Ballabgarh and Ballabgarh-Palwal sections on 20-4-71 and 14-1-72 respectively. Since the remodelling of station yards depended on the decision as to which of the three lines would be nominated as the common line, the Committee desired to know whether steps had accordingly been taken in regard to remodelling of the station yards. The Chairman, Railway Board, has stated:

"We have taken steps for the remodelling of the stations accordingly, i.e., with the third line which is the new line on the western side as the common line for the slow moving traffic. We are doing remodelling on that basis."

He has further added:

"We have finished the work at Tughlakabad, Palwal and Asaoti completely. 3 stations remain, viz. Faridabad, Faridabad New Town and Ballabgarh. They will be done one by one. We can take up only one station at a time."

2.119. The Committee asked whether the delay in the remodelling of Faridabad, Faridabad New Town and Ballabgarh was due to the fact that it took a long time to decide which particular line was to be earmarked for slow moving traffic. The Chairman, Railway Board, has stated:

"The line to be earmarked for slow traffic has been decided and all the station remodelling works are on that basis. But we can do only one station yard remodelling at a time, because it means speed restriction; all the trains will have to be slowed down and the points will be uninterlocked for about 10 days."

2.120. The Committee desired to know the scope for station yard remodelling in the sanctioned estimate and the estimated cost thereof.

The Committee also enquired as to why was station yard remodelling not taken up alongwith construction of the third line so as to synchronise the completion of the third line, interlocking and station yard remodelling. The Chairman, Railway Board, has explained during evidence:

“There were two lines and those lines were working to the full capacity. Normally, we put a third line. We do not touch the existing station yard and signalling until the third line is brought to be used, because touching the existing station yard means some interference with traffic, and that will affect the existing capacity. Normally, we do not do that unless the third line is ready and open for traffic. In this case, the third line was opened and the signalling was completed. We could think about it at that time if we wanted to take up. But, it would have meant again expenditure and we were not in urgent need of it, because the traffic has not developed.”

He has added:

“It would have been better if yard remodelling was done. We did not do it because of the fund position.”

2.121. The third line was commissioned by April 1972. The Committee asked when was the remodelling of the station yards undertaken and why the work of remodelling of station yards and Standard III interlocking had taken such a long time after the completion of the third line. In a note, the Ministry of Railways have stated:

“The remodelling of the station yards was undertaken as under:

Name of the Station	Date of commissioning with rudimentary signalling	Date of commissioning for passenger trains with rudimentary signalling	Date of commissioning of Standard III signalling
Paiwal	30-3-1972	24-10-1974	13-5-1976
Asoti	30-3-1972	24-10-1974	13-5-1976
Ballabgarh	30-3-1972	24-10-1974	Still to be done
Faridabad New Town	6-3-1972	24-10-1974	Still to be done
Faridabad	6-3-1972	24-10-1974	Still to be done
Tughlakabad Junction Cabin	13-3-1972	24-10-1974	7-8-1976

The third line was commissioned with non-interlocked working for goods traffic only in April 1972. This had to be done as the first stage of the work in actual execution in any case. The capacity created as a result of rudimentary signalling created additional capacity for the immediate requirement of traffic and further investment on provision of Standard III interlocking which had to follow the yard remodelling work undertaken when the growth of traffic warranted such investment."

2.122. In regard to the remodelling of the station yards, the Chairman, Railway Board, has stated during evidence:

"The only point here is that we have taken some more time than we take in remodelling etc. Normally, we do it within one to two years. In this case it has taken more time."

2.123. As to the reasons for delay, the witness has stated:

"The reason being that the traffic did not come up to our expectations. We were expecting nine more goods trains. As such, the urgency for that was not so much as was originally visualised. In the meantime, we had great urgency on the grand trunk route. We had patches of single line which we wanted to double. Then, the Central Railway's funds for line work were reduced from Rs. 13 crores to 9 crores. Between Bina and Katni there were certain portions where there was one single line. We had to double it as the coal traffic was going up. Then between Agra and Bina there was critical single line patch which we have doubled now. The Central Railway and the Railway Board thought that there was more urgency than here as the traffic was not developing fast we went slow."

2.124. In reply to a question whether the delay in remodelling had defeated the purpose in view, the witness stated:

"No, Sir. We can do the remodelling of one station at a time."

2.125. The Chairman, Railway Board, admitted that the yard remodelling work was taken up rather late and the work of remodelling and Standard III interlocking had taken more time.

2.126. In reply to another question whether different works could not be done contemporaneously, the witness added:

“It could have been done so. Here, it was not absolutely necessary, because the traffic growth has been less than what we anticipated. Even, today it has not come up to our anticipations.”

2.127. The Committee asked whether it was not essential that all inter-connected works, viz.,

- (i) increasing the line capacity between Palwal and Mathura;
- (ii) construction of third line between Tughlakabad and Palwal to increase the line capacity and segregate the slow moving traffic; and
- (iii) remodelling the terminal facilities at Delhi to receive the additional shuttle trains.

should have been planned as integrated projects so that there was no under-utilisation of investment due to lack of synchronisation of these three components. The Chairman, Railway Board, has stated in evidence:

“We have taken up the work of developing capacity in Delhi. We are increasing the line capacity between Palwal and Mathura and the work is in progress. As the traffic picks up, that capacity will also be developed. We will be able to meet the traffic requirement.”

2.128. With a view to avoiding detention to suburban and long distance trains and also for handling additional number of passenger and goods trains that might be introduced in future on Tughlakabad-Palwal section of the Central Railway, the Ministry of Railways approved in May 1969 the provision of the third line between Tughlakabad and Ballabgarh stations on an urgency certificate. The abstract estimate of Rs. 2.79 crores for this work was sanctioned in July 1971 and this was subsequently revised to Rs. 3.61 crores in September 1973. The provision of the third line between Ballabgarh and Palwal stations was also sanctioned by the Ministry of Railways in January 1972 at an estimated cost of Rs. 1.59 crores. The works in both the sections viz. Tughlakabad-Ballabgarh and Ballabgarh-Palwal, were to be executed in such a way as to enable the commissioning of the third line for traffic on the entire Tughlakabad-Palwal section by 31st March, 1974. The work relating to construction of the third line was, however, actually completed by September 1974 mainly because of the delay in the

execution of work relating to the extension of the existing road overbridge at Ballabgarh station on account of change in the design.

2.129. The Committee find that for increasing the line capacity in a section, the Railways have a choice of either going in for an additional line or for improved signalling. In the present case the Ministry of Railways took a deliberate decision to construct a third line between Tughlakabad and Palwal in preference to the provision of automatic signalling on the ground that the objective was not only the increase in the line capacity but also segregation of slow moving traffic from fast moving traffic, which it was felt would not have been possible if automatic signalling was introduced. It is, however, seen that following the construction of the third line, there has been only a marginal increase in the line capacity of the section and the segregation of fast moving and slow moving trains has not been found feasible. The Committee are thus led to the conclusion that at the time of taking a decision the pros and cons of the alternatives open to the Railways had not been gone into fully.

2.130. It is pertinent to note in this connection that in 1971 when the question regarding extension of the third line from Palwal to Mathura in the same section came up, the choice fell on the provision of automatic signalling rather than investing in a new line. The Signals and Telecommunication Department had then recommended the provision of automatic signalling as a cheaper and more efficient alternative which was accepted by the Ministry of Railways. This causes concern to the Committee. They cannot too strongly stress that before making heavy investments the Ministry of Railways should consider various alternatives in depth and choose the alternative which would best serve the objective at minimum cost.

2.131. The main justification for the provision of the third line between Palwal and Tughlakabad was the additional traffic, both passenger and goods, which was expected to materialise in future years. In 1969 when the scheme for Palwal-Tughlakabad section was sanctioned, the projections of traffic were that by 1973-74 there would be 17 long distance passenger trains and seven shuttles. Besides, 24 goods and other trains were anticipated to run in the section. Against the total of 48 trains expected to run on the section by 1973-74, the actual materialisation upto 1975-76 has been a total of 44.8 trains only. The shortfall in the traffic of goods trains

and shuttles has been attributed to non-materialisation of the coal traffic which was expected to come from the central India coalfields and the failure to introduce shuttle trains between Delhi and Palwal for want of terminal facilities in Delhi area. So far as coal traffic is concerned, the Committee find that the Railways do not appear to have made any independent and critical appraisal of the traffic projections given by the Department of Mines. The Member (Traffic, Railway Board has stated in his evidence before the Committee that "When there is indication by the Department of Mines and when Thermal projects are cleared by Planning Commission, we assume that traffic will come and we have to provide the infrastructure for coal transport and so on." It would be recalled that at a meeting held on 7 October, 1970 in the room of Secretary, Department of Mines and Metals in regard to the movement of coal from Central India Coalfields to power houses in Northern India, it had been made clear that if coal from Korea-Rewa coalfield was to be used by the power houses in the North, the boilers of these power houses would have to be redesigned. This should have made the Railways to review the position critically.

2.132. Further, although the Railways anticipated appreciable increase in the suburban traffic for which additional shuttle trains were planned to run in the section and for which infra-structure in the form of third line was being created, they took no steps to increase the terminal facilities in the Delhi area. The Committee are surprised to learn that it was only in 1974 and thereafter that some schemes for developing the terminal facilities around Delhi were sanctioned, although the third line was originally scheduled to be opened by March 1972. The Committee would like to know why no action was taken at the time of sanctioning the project for the third line for providing adequate terminal facilities in Delhi area for the reception of projected additional shuttles. They urge that the work of provision of terminal facilities in Delhi area should be completed without loss of further time and the Committee informed within 6 months of the progress made in this direction.

2.133. The Committee find that though the third line was opened for passenger traffic in October 1974, the chartered/practical capacities in 1974-75 had been only 45/40.5 trains. During 1975-76 and 1976-77 these figures were 45/45 and 54/50 respectively. The main reason why the actual chartered and actual practical capacities in the section had been substantially lower than the anticipated capacity was the non-provision of standard III interlocking on the third line. The

Railway Board have explained that the natural sequence of operations for constructing the third line was:—

- (i) to lay the third line in the Western side with rudimentary signalling and to link it up with the existing yards;
- (ii) to carry out yard remodelling to suit the operations after the commissioning of the third line; and
- (iii) interlocking of the third line to standard III signalling.

However, the completion of the work at items (ii) and (iii) was delayed because one of the three lines was required to be earmarked for slow moving traffic to facilitate the segregation of slow moving trains from the fast moving trains. Further action such as remodelling of station yards and provision of standard III interlocking depended on this vital decision. The Committee find that it has taken the Railway Authorities more than five years to come to a decision on this point. From the information made available to the Committee, it transpires that when the third line was originally conceived the new line on the Western side was to be nominated as a common line for slow moving traffic. Subsequently, in January, 1970, at the instance of the Central Railway, the middle line was chosen as the common line. This involved provision of a fly-over at Tughlakabad. The provision of a fly-over was accepted as a material modification of the main scheme. There was protracted correspondence between the Central Railway/Northern Railway and the Railway Board and ultimately in August, 1975, the Railway Board agreed to retain the western line as the common line as originally envisaged and dispense with the construction of a fly-over at Tughlakabad. This was an exercise in futility and could have been avoided with proper planning.

2.134. The yard remodelling work has been completed only in three out of the six stations so far. The Chairman, Railway Board, conceded during evidence that normally the work was to be completed within one or two years of the completion of the third line but in this particular case it has taken a longer time. Since without remodelling of yards of all stations, the entire section cannot be linked to standard III signalling, the third line has not been interlocked so far. The delay in executing these works has been explained by the Chairman, Railway Board to be due to the fact that as the traffic had not come up to expectations, the urgency in the completion of works connected with the third line was not so much as was originally envisaged and hence the funds were diverted to other important works.

2.135. The Committee are unhappy to find that out of Rs. 68.63 lakhs provided for in the estimates for standard III interlocking a sum of Rs. 35 lakhs had already been spent on the procurement of signalling stores (upto March 1975). When the work relating to standard III interlocking had been accorded a lower priority because of the non-materialisation of the traffic on the section and the controversy regarding the earmarking of the common line, the Committee fail to understand why the procurement of signalling material much in advance was considered necessary.

2.136. The Committee observe that the revised total estimate sanctioned for the third line was Rs. 5.20 crores. This investment was intended to create a charted capacity of 58 and a practical capacity of 52 trains. The actual expenditure to the end of March 1976 was of the order of Rs. 4.94 crores which means that nearly 95 per cent of the sanctioned amount had already been incurred. However, the capacity has not materialised to the extent anticipated due to non-completion of yard remodelling work at all the Stations in the section and non-provision of standard III interlocking. The investment in the third line is not capable of being exploited even if there be traffic. There is thus a gross under-utilisation of the investment, a fact which Committee cannot but deprecate.

2.137. The Committee cannot but conclude that the whole project was conceived in haste and was based on unduly inflated projections of traffic which were not subjected to any proper scrutiny. After the project had been sanctioned, no efforts seem to have been made to plan the execution of various works in a co-ordinated and integrated manner. Whereas all the works were inter-connected, the planning and execution of various stages of the work do not appear to have been synchronised. The net result of these costly lapses has been that the investment of more than Rs. 5 crores has not been productive because the objectives of handling increased traffic and segregation of slow moving traffic from fast moving traffic yet remain to be achieved. Further because of the delays in the execution of work relating to yard remodelling and provision of interlocking arrangements there had been restrictions on the speed of trains running on the third line and there had been no improvement in the running time of the trains between Tughlakabad and Palwal.

2.138. The Committee would also like the Government to make a reappraisal of the whole project of construction of the third line with

a view to identifying the factors which were responsible for the failure to achieve the objectives, namely—

- (i) how and why the projection regarding the volume of traffic did not materialise;**
- (ii) why the execution of works (common line, remodelling of yard and the Standard III interlocking and terminal facilities in New Delhi) was not undertaken in a planned and integrated manner;**
- (iii) why there was delay in executing the works mentioned in (ii) above, and**
- (iv) why the investment potential is not capable of being exploited even if there is traffic, and lay down concrete guidelines for avoidance of similar lapses in future.**

NEW DELHI;

C. M. STEPHEN,

September 22, 1977

Chairman,

Bhadra 31, 1899 (S)

Public Accounts Committee.

Appendix

Conclusions/Recommendations

S. No.	Para No.	Ministry concerned	Recommendation
1	2	3	4
1	1.90	Railways	<p>The work on the construction of the metre gauge line from Hassan to Mangalore was commenced as early as July 1965 and was targeted for completion in a period of eight years to synchronise with the opening of the new Mangalore Port. It is a matter of great concern that the project which was launched as an adjunct to the Mangalore Port Project—since the Railway line was intended to serve the port—has not even now been completed after a lapse of 12 years. The Committee have been informed in July 1977 that the plateau and plain sections were opened for passenger traffic with effect from May 1976 and February 1977 respectively and the overall progress of work in the remaining ghat section was 78 per cent. The Chairman, Railway Board informed the Committee during evidence that if the funds allocated for this project during the years 1976-77 and 1977-78 were adequate, the line was expected to be completed by the end of 1978. The Committee regret this unconscionable delay in completing the work.</p>

- 2 1'91 Do. The project estimate amounting to Rs. 23.73 crores for the construction of the Hassan-Mangalore line was sanctioned in November 1964. With the passage of time as the cost escalated the estimates were revised upwards. In October 1970 the estimated cost of the project was raised to Rs. 28.34 crores and according to 1977-78 Budget, it has gone up to Rs. 42.36 crores.
- 3 1'92 Do. The Railway Board have stated that the original assessment of traffic on Hassan-Mangalore Railway was contained in the Traffic Survey Report which was prepared in 1956. This Survey Report assessed the total goods traffic of 2,15,000 tonnes which would be moved in the first year of the opening of the line between Hassan and Mangalore and for the movement of this traffic one goods train each way was proposed to be run. Besides, one pair of through passenger trains between Mangalore and Hassan, 2 pairs of locals between Mangalore and Puttur and one pair of locals between Hassan and Sakleshpur were proposed to be run to cater for the originating passenger traffic. No traffic in iron ore was contemplated in this survey report. In September 1961 the Planning Commission approved of the construction of the Hassan-Mangalore railway line and the development of the Mangalore Port as one composite scheme and in March 1962, the Planning Commission advised the Ministry of Railways that the field work should be coordinated with the phasing of the port project. Final location survey for the line was sanctioned on 21 April 1962 and completed in December 1963/Jan. 1964. The traffic appraisal made at the time provided for movement of 2 million tonnes of iron ore. The Com-

mittee were informed that the iron ore traffic of 2 million tonnes as indicated in the final location survey of Hassan-Mangalore railway line was based on the projections of ore traffic through the proposed Mangalore port. These projections had been forwarded to the Ministry of Railways in 1963 by the then Ministry of Mines and Fuel, who had been given this indication by the State Trading Corporation. It appears that at no time there was any firm assessment of the iron ore traffic which would move through the Mangalore Port and consequently will be required to be carried by the Hassan-Mangalore railway line.

As a matter of fact there could not be any accurate assessment of the iron ore traffic as at the time the Hassan-Mangalore railway line and the Mangalore Port projects were being conceived, no firm assessment of the iron ore reserves in the area to be served by these projects had been made. The State Government of Karnataka, who naturally wanted the early exploitation of the mineral resources projected a view that the area to be served by the Mangalore port had reserves of iron ore of more than 300 million tonnes. However, the projections made by the Indian Bureau of Mines placed these reserves at not more than 12.3 million tonnes. Thus there was disparity between the estimates of the reserves indicated by the Government of Karnataka, the Indian Bureau of Mines and the State Trading Corporation. In March, 1964, the Railway Board

became aware that the volume of iron ore traffic will be no more than 0.5 million tonnes. The Audit Para points out that it was clearly indicated in the project report that the justification of the rail link almost wholly rested upon the volume of iron ore traffic being not less than 2 million tonnes *via* Mangalore Port. The Railway Board, however, proceeded with sanctioning of the project in November 1964. Justifying the decision to go ahead with the project of Hassan-Mangalore rail link the Chairman, Railway Board has stated in evidence that although the expectation of iron ore had come down and the return was expected to be low, the project was sanctioned in consultation with the Ministry of Finance who felt that the project was considered necessary as otherwise the hinterland would not develop. Thus, just when the project was being sanctioned the emphasis had shifted from commercial movement of iron ore through Mangalore Port to other general considerations involving, *inter alia*, the economic development of the hinterland.

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Do. Right through the deliberations concerning the development of Mangalore Port, the likely export of iron ore through that port was estimated much lower. The Minerals and Metals Trading Corporation who are the canalising agency for the export of iron ore have informed that at the time of commencement of the construction work of Hassan-Mangalore line in July 1965, the Ministry of Railways were very well aware of the extremely limited iron ore export possibilities through the Mangalore Port. Thus, even as the Ministry of Railways approved the commencement of the con-

struction work on Hassan-Mangalore line they knew that the project was commercially not remunerative. Interestingly, when the Committee enquired as to what were the considerations which made the Railway Board sanction the project even after knowing that it would be a burden on the Railway revenues, the Railway Board stated:

“Since a firm commitment had been made in the Parliament that this line would be constructed and the line was considered justified from the point of view of economic development of the region, it was decided to proceed with its construction in consultation with the Ministry of Finance.”

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The Committee find that in 1971 the projected ore traffic was further scaled down to one lakh tonnes and a fresh reappraisal of the traffic prospects made in that year anticipated a total goods traffic of only about 8 lakh tonnes on the section both in the Up and Down directions. In fact, at a meeting held in the Planning Commission on 24 April 1971 where the representative of the Railways was also present, the representative of the MMTC had indicated that in future the Mangalore Port was not likely to handle large quantities of iron ore because it would be uneconomic to export iron ore through

Mangalore as compared to other Ports. It is observed that with the progress of the Project the prospects of carrying the targeted traffic by the Railway line to the Mangalore Port have progressively come down.

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Do.

While approving the composite scheme of the construction of railway line and the development of Mangalore Port, the Planning Commission had stipulated that since the Hassan-Mangalore line was needed for the development of Mangalore Port, the Ministry of Railways should draw up the schedule of construction of new line in consultation with the Ministry of Transport. The work on the construction of the Hassan-Mangalore line was commenced in July, 1965 and was targeted for completion in a period of 8 years to synchronise with the opening of the new Port. The Harbour project was, however, actually sanctioned in June 1968 and on completion formally inaugurated and commissioned in January 1975. The Hassan-Mangalore link is still under construction. Wide gap of over three years both in the commencement and the likely target of completion of the rail link as compared with the commencement and completion of the Port project clearly indicates that there has been no meaningful coordination between the Ministry of Transport and the Ministry of Railways for taking coordinated action to achieve the desired goal of completion of both the projects simultaneously. The Committee regret this lack of effort on the part of the authorities concerned.

1	2	3	4
8	1.97	Railways	<p>It is further seen that in 1963, at the instance of the Ministry of Transport the construction of the broad gauge line between the existing Mangalore rail head and the new Port site of Panambur covering a distance of 25.8 kms. was undertaken on an urgency certificate to provide facilities for taking materials to the site of the new harbour. This link was considered indispensable for the transportation of approximately 2 million tonnes of stones for breakwaters, 50,000 tonnes of cement and 15,000 tonnes of steel required for the construction of the port. The construction of the railway connection from Mangalore to Panambur commenced in November, 1963 and was completed by October, 1972 at a cost of Rs. 2.6 crores. The harbour authorities, however, did not use this line for transportation of the materials and machinery required for the Harbour Project on the ground that the rail transport was uneconomical. In the background of the expenditure that the Railways had been called upon to incur at the Port's request, it is regrettable that the Port authorities did not consider it economical to use this facility.</p>
9	1.98	Do.	<p>In 1963, when the Ministry of Railways were persuaded by the Ministry of Transport to undertake this work, the Ministry of Transport had not even worked out the relative economics of rail and road transport of the materials for the port as it was then felt that the work could be tackled only by rail transport. It was only</p>

in 1967 that the Ministry of Transport appear to have done some exercise about the relative economics of the rail and road transport, when they found out that the carriage of materials by rail would be costlier.

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Do. In extenuation of the use of road transport rather than the rail transport for the movement of materials for the port, it has been stated that there was a change in the design of the breakwaters which resulted in the reduction of the total quantity of the stones/ boulders to be used in the breakwaters. As a result of the change, the size of the boulders was also reduced and hence the transportation by road became easier and economical. This change of design and subsequent reduction in traffic for the port link was not communicated to the Ministry of Railways. It was only in 1969 that the Port authorities told the Railways that they did not want to use the railway siding for the movement of stones and had decided to move them by road as the latter alternative was cheaper for them. The Committee have been given to understand that the rates offered by the Railways to the Port authorities for the transportation of the stones/boulders were slightly higher than the rates quoted by the road hauliers. The Railway Administration is also stated to have offered some further inducement by offering the 'rock spoils' at a concessional rate but they were not able to persuade the Port authorities to use the rail link. After having induced the Ministry of Railways to construct on priority basis the line at a heavy cost, ahead of the commencement of main project, it was

but proper for the Ministry of Transport to have used the facility specially created for them. The Committee feel that this failure of the port authorities to honour their commitments to the Ministry of Railways to carry the boulders/stones traffic by rail needs to be investigated.

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I-100

Railways

Another important point which agitates the Committee is the absence of an integrated approach to the problems of transportation. It is seen that about the same time the Hassan-Mangalore rail link was being thought of, the State Government of Mysore had undertaken extensive road development works in order to facilitate the transport of iron ore. Between 1961 and 1969, the State Government had incurred an expenditure of Rs. 3.54 crores on the development of roads including the Hassan-Mangalore road. For the development of this road even the Government of India had provided a grant-in-aid on matching basis. The fact that the Railway Board were aware of the road developments in the area at the time of processing the proposed rail link for sanction has not been denied. This only fortifies the Committee's earlier impression that on the plea of the development of the hinterland, the authorities launched on an ambitious project of opening a railway line despite the availability or likely availability of good road communications for the transport of material for the port.

12.

I'101

Do.

Apart from the question of justifiability of the rail connection between Hassan and Mangalore, the actual execution of the construction work of the link raises serious issues. While approving the composite scheme of Mangalore Port and Hassan-Mangalore rail link, the Planning Commission had laid great emphasis on the completion of the rail link in such a way that it synchronised with the opening of the Port. The Mangalore Port has been opened to traffic from January, 1975. However, the rail link, as already stated, is yet to be completed. With the opening of the port, traffic (both exports and imports) has started moving. The total tonnage of traffic handled at the New Mangalore Port since its commissioning is 8.60 lakh tonnes, out of which the total tonnage of traffic handled in 1976-77 is 4.29 lakh tonnes. The traffic for the year 1977-78 has been estimated at 5 lakh tonnes. If the rail link had been ready a considerable portion of this traffic would have been handled by the Railways. The Committee also apprehend that once the ore and other traffic starts moving to the Mangalore Port by road, it may be difficult for the Railway Administration to get back the ore and other traffic to the railways from the road hauliers.

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13.

I'102

Do.

Delay in the execution of the work is responsible for the escalation of the cost of the project which may well exceed Rs. 42 crores against the original estimates of Rs. 23.73 crores. Giving the reasons for escalation of cost the Ministry of Railways have explained that besides the rise in prices, the conditions of work in the Ghat Section were 'very difficult' which have also added to the expenditure. The Committee are not convinced by this argument as they

feel that the difficulties likely to be encountered in the Ghat Section could have been visualised much earlier. The Committee also note that an expenditure of Rs. 3.41 crores has been incurred in providing broad-gauge profiles for tunnels, broad-gauge substructures for bridges and a by-pass line. Further since the link has not been completed, the portion already completed cannot be put to any effective use with the result that capital assets of huge magnitude remain unutilised or underutilised. The main reasons for non-completion of the rail link were the inadequate allocation of funds as also the difficulties encountered in the completion of the work in Ghat Section. The Committee feel that if there was inadequate allocation of funds for the rail link, this should have been taken up with the Planning Commission, who were in a better position to assess the relative importance of the project.

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|-----|-------|----------|--|
| 14. | I-103 | Railways | <p>The Committee are inclined to believe that the real cause for the delay in the completion of the construction work was that as the rail link was not strictly justifiable on the grounds of traffic requirements in the hinterland, there was no pressing demand to complete the work early. With bleak prospects of the traffic materialising, the project was apparently accorded a low priority.</p> |
| 15. | I-104 | -Do.- | <p>That the projections of iron ore, on the basis of which the project was sanctioned, were highly inflated and unrealistic is borne</p> |

out by the fact that in 1975-76, only 74,000 tonnes of iron ore moved to the new Mangalore Port by road. If that is an indication of the likely volume of iron ore traffic to be moved by the rail link, it is obvious that this rail link will involve heavy recurring losses to the railways.

16.

1.105

Do.

On the basis of the facts disclosed, the Committee are firmly of the opinion that there should be deep probe by an inter-ministerial team with a non-official Chairman of the circumstances leading to the sanction of the Hassan-Mangalore Rail Link, which has involved the State in colossal capital expenditure without any prospects of return in the foreseeable future. The team may be asked to examine the *raison d'etre* of the project and pin-point responsibility, if any, for the doubtful decision which has imposed heavy burdens on the Exchequer without commensurate returns.

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2.48

Do.

The Committee note that in November, 1970 following a suggestion received from the Government of Bihar for the restoration of the Railway line from Saraigarh to Forbesganj, the Ministry of Railways directed the North Eastern Railway Administration to make a quick assessment of the rough costs and financial viability of the proposed restoration. The reconnaissance survey report and the traffic appreciation report submitted by the Railway Administration in April, 1971 indicated that the whole section was expected to yield a return of (—) 1.46 per cent during 1974-75 but if the restoration was carried out from Saraigarh to Raghapur only

(11 kms.) the return would be 3.79 per cent. The Railway Administration had accordingly recommended restoration of the section from Saraigarh to Raghapur in the first instance. The Committee also note that in October, 1971, when the Railway Administration submitted a proposal for undertaking a preliminary engineering-cum-traffic survey the Ministry of Railways advised the Administration to update the earlier appreciation report with a view to determine whether there was a *prima facie* justification for Saraigarh-Forbesganj link. The Committee are, however, surprised to note that before the Railway Administration could update the appreciation report, the Ministry of Railways decided in May, 1973 about the restoration of rail links between Saraigarh-Raghapur and Raghapur-Pratapganj sections, for which two urgency certificates were obtained from the Railway Administration without even an engineering-cum-traffic survey. The reason for this extraordinary promptitude is not understandable.

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Railways

The abstract estimates enclosed with the urgency certificates were of the order of Rs. 119.98 lakhs and those had been prepared on the basis of a reconnaissance survey carried out earlier in 1970-71. It is thus interesting to note that in October, 1971, when the Railway Administration proposed undertaking of a preliminary enginee-

ring-cum-traffic survey, the Ministry of Railways advised the Railway Administration to update the data contained in the reconnaissance survey before their proposal could be considered, but later on they themselves decided about the restoration of the rail links for which the same survey report formed the basis. The Audit Paragraph also points out that the execution of the work in these sections commenced on 18 June, 1973 without preparation of the working estimates for earthwork etc. and completion of the final location and engineering-cum-traffic survey. The Committee are astonished at the unseemly haste displayed by the Ministry of Railways in sanctioning these restoration projects and proceeding with the execution of works connected therewith without making any detailed investigations or surveys as required under the provisions of the Indian Railway Engineering Code. It appears that soon after the then Minister of Railways made an announcement on February, 20, 1973 through his budget speech in regard to the new policy to be followed in construction of new lines, the Ministry of Railways lost no time in seriously taking up the restoration of rail links between Saraigarh and Forbesganj sections. Whether they could be justified on the ground of financial viability was altogether a different question. As a matter of fact even the normal procedures required to be followed in connection with the construction of a new line or restoration of an abandoned line were dispensed with. The urgency shown in proceeding with the execution of this work in utter disregard of the laid down procedures was not at all warranted. The Committee would like to be informed as to how many projects for restoration of old and abandoned lines were taken up

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during the same period and by what time were completed and actually commissioned.

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Railways

The Committee find that after deciding in May, 1973 that only essential sub-works should be undertaken during 1973-74 before detailed estimates were sanctioned, the Ministry of Railways proceeded apace in the execution of the works connected with the restoration. The Ministry of Railways have informed the Committee that the entire section from Saraigarh to Pratapganj was initially planned to be opened by June, 1974 for goods as well as passenger traffic. Subsequently, the date of opening of the section Saraigarh-Raghapur was advanced to March, 1974 to enable the Minister of Railways to inaugurate it on that date. Surprisingly, in order to ensure that the line was "physically in existence on that date" even some make shift arrangements in total disregard of the extant orders were made. It is seen that in February, 1974 some temporary low level diversions were provided in Saraigarh-Raghapur section by diverting all earthwork labour from the adjoining Raghapur-Pratapganj section, with a view to ensure that the track was linked continuously from Saraigarh to Raghapur by 2 March, 1974 so as to be ready for formal inauguration by the Minister on the appointed date. Since such temporary diversions were not permissible

under the rules, the Additional Commissioner, Railway Safety declined to inspect the section, when approached by the Railway Administration and ultimately the work on the bridges was got completed by the 25 April, 1974. This resulted in an avoidable expenditure of Rs. 1.41 lakhs on the diversion.

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2'51

Do.

The construction estimate for Saraigarh-Pratapganj section was submitted to the Railway Board in March, 1974 when 60 per cent of the work had been completed and this was sanctioned by the Railway Board in July, 1974, i.e., after the line had actually been opened for traffic on 16 June, 1974. The estimate could therefore not serve the purpose of financial control. Even the estimates submitted to the Railway Board in March, 1974 were far from being accurate in that against an estimated provision of 3.40 lakhs cu.m. of earthwork at an estimated cost of Rs. 14.61 lakhs, the earthwork actually executed was of the order of 5.91 lakhs cu.m. at a cost of Rs. 23.62 lakhs. There was thus an increase of about 74 per cent in quantity and 62 per cent in cost as compared to the provisions in the estimate.

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2'52

Do.

The Committee also find that in March, 1974 the Railway Administration had submitted a construction estimate of Rs. 3.98 crores for the restoration of the Pratapganj-Forbesganj link with reference to the alignment finally approved and the Railway Board had sanctioned a net estimate of Rs. 3.37 crores in July, 1974. The work on this section had started in September, 1973 and the progressive expenditure on this work was Rs. 2.57 crores till the end

1	2	3	4
21.	2.52	Railways	of August 1975. Again, the expenditure on the earthwork involved in this work as booked upto October 1975 was Rs. 59.89 lakhs as against the estimate of Rs. 33.44 lakhs, which represented an increase of 79 per cent over the estimated cost.
22.	2.53	Do	<p>From the above paragraphs it is clear that the works on the Saraigarh-Pratapganj and Pratapganj-Forbesganj sections were executed with undue waste without any attention having been paid to planning and observance of financial procedures. The Committee are deeply concerned that even the elementary principles of technical and financial control, which should have been scrupulously observed were given the go by. The Committee are at a loss to understand how in the execution of works of such a magnitude the Ministry could proceed without collecting reliable data and preparation of realistic estimates. The extraordinary promptitude with which the entire restoration work has been started and completed in this section where traffic prospects could be termed only meagre, leads the Committee to conclude that the work was dictated for reasons other than genuine needs of traffic in the area. The Committee would like the matter to be investigated thoroughly to:—</p> <p>(i) fix responsibility on the persons who had authorised and incurred expenditure in departure of the prescribed</p>

procedure *viz.* the completion of the detailed engineering-cum-traffic survey.

(ii) find out the circumstances, under which the authorisations were made; and

(iii) to lay down procedures so that such departures do not take place in future.

23.

128

Do.

With a view to avoiding detention to suburban and long distance trains and also for handling additional number of passenger and goods trains that might be introduced in future on Tuglakabad-Palwal section of the Central Railway, the Ministry of Railways approved in May 1969 the provision of the third line between Tuglakabad and Ballabgarh stations on an urgency certificate. The abstract estimate of Rs. 2.79 crores for this work was sanctioned in July 1971 and this was subsequently revised to Rs. 3.61 crores in September 1973. The provision of the third line between Ballabgarh and Palwal stations was also sanctioned by the Ministry of Railways in January 1972 at an estimated cost of Rs. 1.59 crores. The works in both the section *viz.* Tuglakabad-Ballabgarh and Ballabgarh-Palwal, were to be executed in such a way as to enable the commissioning of the third line for traffic on the entire Tuglakabad-Palwal section by 31st March, 1974. The work relating to construction of the third line was, however, actually completed by September 1974 mainly because of the delay in the execution of work relating to the extension of the existing road

1	2	3	4
23.	2.128	Railways	overbridge at Ballabgarh station on account of change in the design.
24.	2.129	Do.	<p>The Committee find that for increasing the line capacity in a section, the Railways have a choice of either going in for an additional line or for improved signalling. In the present case the Ministry of Railways took a deliberate decision to construct a third line between Tughlakabad and Palwal in preference to the provision of automatic signalling on the ground that the objective was not only the increase in the line capacity but also segregation of slow moving traffic from fast moving traffic, which it was felt would not have been possible if automatic signalling was introduced. It is, however, seen that following the construction of the third line, there has been only a marginal increase in the line capacity of the section and the segregation of fast moving and slow moving trains has not been found feasible. The Committee are thus led to the conclusion that at the time of taking a decision the pros and cons of the alternatives open to the Railways had not been gone into fully.</p>
25.	2.130	Do.	<p>It is pertinent to note in this connection that in 1971 when the question regarding extension of the third line from Palwal to Mathura in the same section came up, the choice fell on the provision of automatic signalling rather than investing in a new line.</p>

The Signals and Telecommunication Department had then recommended the provision of automatic signalling as a cheaper and more efficient alternative which was accepted by the Ministry of Railways. This causes concern to the Committee. They cannot too strongly stress that before making heavy investments the Ministry of Railways should consider various alternatives in depth and choose the alternative which would best serve the objective at Minimum cost.

26.

2.31

Do,

The main justification for the provision of the third line between Palwal and Tughalkabad was the additional traffic, both passenger and goods, which was expected to materialise in future years. In 1969 when the scheme for Palwal-Tughlakabad section was sanctioned, the projections of traffic were that by 1973-74 there would be 17 long distance passenger trains and seven shuttles. Besides, 24 goods and other trains were anticipated to run in the section. Against the total of 48 trains expected to run on the section by 1973-74, the actual materialisation upto 1975-76 has been a total of 44.8 trains only. The shortfall in the traffic of goods trains and shuttles has been attributed to non-materialisation of the coal traffic which was expected to come from the central India coalfields and the failure to introduce shuttle trains between Delhi and Palwal for want of terminal facilities in Delhi area. So far as coal traffic is concerned, the Committee find that the Railways do not appear to have made any independent and critical appraisal of the traffic projections given by the Department of Mines. The Member

Traffic, Railway Board has stated in his evidence before the Committee that "When there is indication by the Department of Mines and when Thermal projects are cleared by Planning Commission, we assume that traffic will come and we have to provide the infrastructure for coal transport and so on." It would be recalled that at a meeting held on 7 October 1970 in the room of Secretary, Department of Mines and Metals in regard to the movement of coal from Central India Coalfields to power houses in Northern India, it had been made clear that if coal from Korea-Rewa coalfield was to be used by the power houses in the North, the boilers of these power houses would have to be redesigned. This should have made the Railways to review the position critically.

27.

2.132

Railways

Further, although the Railways anticipated appreciable increase in the suburban traffic for which additional shuttle trains were planned to run in the section and for which infra-structure in the form of third line was being created, they took no steps to increase the terminal facilities in the Delhi area. The Committee are surprised to learn that it was only in 1974 and thereafter that some schemes for developing the terminal facilities around Delhi were sanctioned, although the third line was originally scheduled to be opened by March 1972. The Committee would like to know why no action was taken at the time of sanctioning the project for the

third line for providing adequate terminal facilities in Delhi area for the reception of projected additional shuttles. They urge that the work of provision of terminal facilities in Delhi area should be completed without loss of further time and the Committee informed within 6 months of the progress made in this direction.

28.

2-133

Do.

The Committee find that though the third line was opened for passenger traffic in October 1974, the chartered/practical capacities in 1974-75 had been only 45/40.5 trains. During 1975-76 and 1976-77 these figures were 45/45 and 54/50 respectively. The main reason why the actual chartered and actual practical capacities in the section had been substantially lower than the anticipated capacity was the non-provision of standard III interlocking on the third line. The Railway Board have explained that the natural sequence of operations for constructing the third line was:—

- (i) to lay the third line in the Western side with rudimentary signalling and to link it up with the existing yards;
- (ii) to carry out yard remodelling to suit the operations after the commissioning of the third line; and
- (iii) interlocking of the third line to standard III signalling.

However, the completion of the work at items (ii) and (iii) was delayed because one of the three lines was required to be earmarked for slow moving traffic to facilitate the segregation of slow moving trains from the fast moving trains. Further action such as remodelling of station yards and provision of standard III interlocking

depended on this vital decision. The Committee find that it has taken the Railway Authorities more than five years to come to a decision on this point. From the information made available to the Committee, it transpires that when the third line was originally conceived the new line on the Western side was to be nominated as a common line for slow moving traffic. Subsequently, in January, 1970, at the instance of the Central Railway, the middle line was chosen as the common line. This involved provision of a fly-over at Tughlakabad. The provision of a fly-over was accepted as a material modification of the main scheme. There was protracted correspondence between the Central Railway/Northern Railway and the Railway Board and ultimately in August, 1975, the Railway Board agreed to retain the western line as the common line as originally envisaged and dispense with the construction of a fly-over at Tughlakabad. This was an exercise in futility and could have been avoided with proper planning.

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29.

2.134

Railways

The yard remodelling work has been completed only in three out of the six stations so far. The Chairman, Railway Board, conceded during evidence that normally the work was to be completed within one or two years of the completion of the third line but in this particular case it has taken a longer time. Since without remodelling of yards of all stations, the entire section cannot be

linked to standard III signalling, the third line has not been interlocked so far. The delay in executing these works has been explained by the Chairman, Railway Board to be due to the fact that as the traffic had not come up to expectations, the urgency in the completion of works connected with the third line was not so much as was originally envisaged and hence the funds were diverted to other important works.

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2.135

Railways

The Committee are unhappy to find that out of Rs. 68.63 lakhs provided for in the estimates for standard III interlocking a sum of Rs. 35 lakhs had already been spent on the procurement of signalling stores (upto March 1975). When the work relating to standard III interlocking had been accorded a lower priority because of the non-materialisation of the traffic on the section and the controversy regarding the earmarking of the common line, the Committee fail to understand why the procurement of signalling material much in advance was considered necessary.

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2.126

Do.

The Committee observe that the revised total estimate sanctioned for the third line was Rs. 5.20 crores. This investment was intended to create a charted capacity of 58 and a practical capacity of 52 trains. The actual expenditure to the end of March 1976 was of the order of Rs. 4.94 crores which means that nearly 95 per cent of the sanctioned amount had already been incurred. However, the capacity has not materialised to the extent anticipated due to non-

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completion of yard remodelling work at all the Stations in the section and non-provision of standard III interlocking. The investment in the third line is not capable of being exploited even if there be traffic. There is thus a gross under-utilisation of the investment, a fact which Committee cannot but deprecate.

32.

2.137

Railways

The Committee cannot but conclude that the whole project was conceived in haste and was based on unduly inflated projections of traffic which were not subjected to any proper scrutiny. After the project had been sanctioned, no efforts seem to have been made to plan the execution of various works in a co-ordinated and integrated manner. Whereas all the works were inter-connected, the planning and execution of various stages of the work do not appear to have been synchronised. The net result of these costly lapses has been that the investment of more than Rs. 5 crores has not been productive because the objectives of handling increased traffic and segregation of slow moving traffic from fast moving traffic yet remain to be achieved. Further because of the delays in the execution of work relating to yard remodelling and provision of interlocking arrangement, there had been restrictions on the speed of trains running on the third line and there had been no improvement in the running time of the trains between Tughlakabad and Palwal.

Do. The Committee would also like the Government to make a reappraisal of the whole project of construction of the third line with a view to identifying the factors which were responsible for the failure to achieve the objectives, namely—

- (i) how and why the projection regarding the volume of traffic did not materialise;
- (ii) why the execution of works (common line, remodelling of yard and the Standard III interlocking and terminal facilities in New Delhi) was not undertaken in a planned and integrated manner;
- (iii) why there was delay in executing the works mentioned in (ii) above, and
- (iv) why the investment potential is not capable of being exploited even if there is traffic, and lay down concrete guidelines for avoidance of similar lapses in future.

