

**RAILWAY CONVENTION  
COMMITTEE  
(1980)**

**(SEVENTH LOK SABHA)**

**TWELFTH REPORT**

**ON**

**TRACK EXPANSION PROGRAMME OF  
RAILWAYS**

*Presented in Lok Sabha on 25-8-1984*

*Lok Rajya Sabha on 25-8-1984*



**LOK SABHA SECRETARIAT  
NEW DELHI**

*August, 1984/Sravana, 1906 (Saka)*

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Corrigenda to the Twelfth Report of the  
Railway Convention Committee (1980).

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# CONTENTS

## COMPOSITION OF THE RAILWAY CONVENTION COMMITTEE INTRODUCTION

PAGES  
(iii)  
(v)

### PART-I

TRACK EXPANSION PROGRAMME OF RAILWAYS	1
A. Plan allocation	2
B. Plan allocation for new lines and line capacity works	14
C. New lines	16
D. New Lines completed since 1950-51	43
E. Gauge Conversion and Doublings of line	52
F. Track Renewal	56
G. Diversion of Funds	58
H. Proposals from State Governments	60
I. Uneconomic Branch lines	61

### PART-II

Conclusions/Recommendations of the Committee	68
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### APPENDICES

I. The anticipated and actual rate of return in the sixth year of opening of new railway lines (longer than 20 kms.) constructed since 1950.	80
II. List of new railway lines (longer than 20 kms.) constructed since 1950.	84
III. On-going projects on new lines at the start of the Sixth Plan.	88
Projects on new lines taken up during Sixth Plan (upto 31-3-1984).	90
V. Details of Railway projects on track expansion/gauge conversion costing over Rs. 10 crores which suffered around 100% cost and time-over run.	92
VI. Gauge conversion schemes completed since 1950.	96
VII. On-going gauge conversion schemes at the start of the Sixth Plan.	97
VIII. Anticipated cost and outlay expected on work in progress during 1982-83-1984-85.	99
IX. Statement showing salient points raised in the Memoranda received from various States Governments and Union Territory Administrations and comments of the Ministry of Railways (Railway Board) thereon.	101

### PART-III\*

Minutes of the sittings of the Railway Convention Committee (1980) held on 2 June 1982, 10 and 11 November and 8 and 16 December, 1983-3, 4, 9, 18 April, 28 and 29 May, 6 July and 7 August 1984

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\*Not appended (One copy laid on the Table of the House and five copies placed in the Parliament Library.

15. (VIII) Shri Bhagatram Manhar
16. (IX) Shri Pranab Mukherjee
17. (X) Shri N. Rajangam
18. (XI) Shri Ghan Shyam Singh

SECRETARIAT

1. Shri T. R. Krishnamachari—*Joint Secretary.*
2. Shri H. S. Kohli—*Chief Financial Committee Officer.*
3. Shri Krishnapal Singh—*Senior Financial Committee Officer.*

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(VIII) Nominated w. e. f. 21-5-1984 *vice* Shri Ram Lakhan Prasad Gupta ceased to be Member of the Committee consequent on his retirement from the Rajya Sabha on 9-4-1984.

(IX) Nominated w. e. f. 9-3-1982 *vice* Shri Mahendra Mohan Mishra resigned from the Committee.

(X) Nominated w. e. f. 21-5-1984 *vice* Shri Ladli Mohan Nigam ceased to be Member of the Committee consequent on his retirement from the Rajya Sabha on 9-4-1984.

(XI) Nominated w. e. f. 21-10-1982 *vice* Shri J. K. P. N. Singh resigned from the Committee.



## INTRODUCTION

I, the Chairman of Railway Convention Committee (1980) having been authorised by the Committee to submit the Report on their behalf, present this Twelfth Report on 'Track Expansion Programme of Railways'.

2. The Committee took evidence of the representatives of the Planning Commission on 10 and 11 November 1983, of the representatives of the Ministry of Finance on 8 December, 1983 and of the Ministry of Railways (Railway Board) on 2 June, 1982, 16 December 1983 and 6 July 1984. The Committee wish to express their thanks to the Planning Commission, the Ministry of Finance and the Ministry of Railways (Railway Board) for placing before them the material and information they desired in connection with the examination of the subject. The Committee also wish to place on record their appreciation of the valuable assistance rendered to them by the Secretary, Planning Commission, by the Secretary (Expenditure), Ministry of Finance and by the Chairman and Members of the Railway Board, by the Financial Commissioner of Railways and their Officers and staff.

3. The Report was considered by the Committee at their sittings held on 28 and 29 May, 1984 and adopted on 7 August, 1984 as modified in the light of further evidence taken.

4. For reference facility and convenience, the recommendations/conclusions of the Committee have been printed in thick type in the body of the Report.

NEW DELHI;

August 10, 1984

Sravana 19, 1906 (S).

D. L. BAITHA,

Chairman,

Railway Convention Committee.

## PART I

### TRACK EXPANSION PROGRAMME OF RAILWAYS

The Indian Railways system is the principal mode of transport in the country and the world's second largest under one management. It developed as a multigauge system with several agencies taking up construction and operation of the Railway network in the earlier years. As on 31-3-1983, the Indian Railways are the nation's largest undertaking with an investment of Rs. 8,882 crores and a route kilometrage of 61,385 employing 15.83 lakhs regular employees. Indian Railways are owned and managed by the Central Government.

2. The route kilometrage of 61,385 represents the aggregate route length and includes the length of 13,219 route kilometres which have either double or multiple tracks. The total length of running track is 76,197 kilometres. Inclusive of the tracks in the Yards and Sidings, the total length of the track stood at 105,106 kilometres. The table below compares the railway network at the end of 1982-83 with these of earlier years:—

Year	Total route km.	Running track km.	Total Track* km.
1950-51	53,596	59,315	77,609
1955-56	55,011	60,845	78,233
1960-61	56,247	63,602	83,706
1965-66	58,399	68,375	92,474
1968-69	59,553	70,691	97,785
1973-74	60,234	74,104	101,028
1976-77	60,666	74,839	102,837
1977-78	60,693	75,012	103,325
1978-79	60,777	75,195	103,587
1979-80	60,933	75,450	103,906
1980-81	61,240	75,860	104,480
1981-82	61,230	75,964	104,711
1982-83	61,385	76,197	105,106

\*This includes track in yards and sidings.

## A. PLAN ALLOCATIONS

The Committee desired to know what were broadly the criteria adopted by the Planning Commission for investments in Railways. In a written reply the Planning Commission have informed the Committee as follows:—

“Railways are the principal mode of transport in the country and constitute the life line for most long distance movements. It forms an essential ingredient and a basic infrastructure in the development of the economy alongwith Energy and Power. The criteria adopted for investment in the Railways take into account the projected transport demand and the need to create adequate capacity, both line capacity and rolling stock, to meet the projected levels of traffic of freight and passenger transport. It also takes into account the requirements of rehabilitation and replacement of assets as well as investments required for modernization, upgradation of technology, costs reducing investments like electrification, investments for achieving self reliance in the production of major equipment required for Railways and for expansion of the network to meet the developmental needs.”

4. According to the Planning Commission the Plan allocation/ expenditure on Railways and proportion of Plan outlays (actual) to total public Sector outlay is as follows:

	Total Railway Plan Outlay*	Total Public Expenditure Sector	Percentage of Col. 3 to Col. 4
First Plan (1951-56)	250.00 (400.00)	217.23 (423.73)	1960 (21.6)
Second Plan (1956-61)	900.00 (1125.00)	723.26 (1043.68)	4672 (22.3)
Third Plan (1961-66)	890.00 (1325.00)	1325.50 (1685.53)	8577 (19.6)
Annual Plans (1966-69)	592.00 (897.00)	508.81 (762.71)	6652 (11.5)
Fourth Plan (1969-74)	1050.00 (1575.00)	934.00 (1428.00)	15779 (9.0)
Fifth Plan (1974-79)	2202.00	2062.76	28653 (11268)
1979-80 Plan	650.00	714.00	12475
Sixth Plan (1980-85)	5100.00	—	97500
1980-81 Plan	760.00	973.00	14832
1981-82 Plan	980.00	1209.00	18211
1982-83 Plan	1327.00	1332.00	21357
		(RE)	
1983-84 Plan	1502.00	—	26280

\*Figures indicated are as per original Plan allocations, Upto IV Plan DRF was not part of the Plan outlays. Figures in brackets give the total outlay and expenditure including DRF.

5. It is seen that against the Plan outlay of Rs. 5100 crores for the Sixth Plan period, the expenditure/allocation in the first 4 years amounts to over Rs. 5000 crores—using up nearly all the outlay for the five years. The investment for the annual plan, 1984-85 is of the order of Rs. 1650 crores. According to the Planning Commission, an effort has been made in the Sixth Plan to give priority to the replacement of assets and for creating freight capacity adequate to meet the minimum needs of the economy. The Planning Commission has also stated that within the constraint of resources every effort has been made and will continue to be made for providing adequate outlays for the Railways to enable this sector to play a significant role in the development of the economy. The increase in the contribution to the Depreciation Reserve Fund by the Railways itself is a significant step in increasing the outlays for the Railways.

6. According to the Planning Commission, the share of Plan investment in Railways went up from 11.07 per cent in the First Plan (1951—56) to 15.48 per cent in the Second Plan and thereafter progressively gone down to 5.23 per cent in the Sixth Plan. If the total plan outlay including Depreciation Reserve Fund Expenditure is taken into account the percentage share would seem to have come down from 24 in the Second Plan to 5.23 in the Sixth Plan.

7. In absolute terms the investment has gone up substantially from Rs. 400 crores (inclusive of DRF) in the First Plan to Rs. 1125 crores in the Second Plan and then gradually to Rs. 2202 crores in the Fifth Plan whereafter there was significant increase to Rs. 5100 crores for the Sixth Plan. On an enquiry of the Committee as to what would be the increase from Plan to Plan in real terms at constant prices, the Secretary Planning Commission informed the Committee during evidence as follows:

“I do not have the figures calculated in real terms from Plan to Plan. But I do have the figures for the Sixth Plan period—the figures would be as follows: —

Year	At current price	At 1979-80 price
1980-81	973 crores	887 crores
1981-82	1210 crores	875 crores
1982-83	1332 crores	823 crores
1983-84	1502 crores	833 crores

In the mid-term review of the Sixth Plan, the Commission has said that it is necessary to provide for more funds for certain specific areas of infrastructure, and they have singled out the Railways in this respect, they have said that more should be spent on Railways. The point, of course, is that activities in the public sector have been increasing and diversifying. In the Second and Third Plans, the Railways formed the most important part of the public sector expenditure and competition from other areas of public sector was much less than it is today. To the extent we are branching out in different other areas of public sector, the pressure on available resources is greater. This is also a factor to be taken into account while assessing the figures. The third Plan was the best from the point of view of the Railways. The diminution in real terms of the plan expenditure in Railways after that has now been reversed; in the Sixth Plan, overall, it has gone up. The Planning Commission itself has said in the mid-term review that the infrastructural areas, and particularly Railways, deserve greater attention."

The Secretary, Planning Commission agreed by adding:

"If you compare the Sixth Plan with the Fifth Plan, in real terms, you will find that the expenditure has gone up considerably. The Third Plan represented the best as far as Railways are concerned. In the Fourth and Fifth Plans including the Annual Plan, there was some diminution, but in the Sixth Plan the trend has been reversed, even in real terms. What I gave you was the figure in each year of the Sixth Plan where it has changed a little this side or that side. The Planning Commission recognise that this is not adequate and something more has to be done.

The Planning Commission is of the view that "the maximum possible should be given to the Railways."

8. The Committee enquired from the Secretary (Expenditure) Ministry of Finance how the Ministry of Finance accounted for the declining trend in Railway investments in real terms and share of Plan investment progressively coming down. The Secretary (Expenditure) explained as follows:—

"There is nothing sacrosanct about particular percentage for particular sector. Thinking of a particular percentage to be earmarked for Railways, Road transport, Agriculture,

Transport and so on would be the very negation of the planning process. For every plan, micro and macro economic surveys and exercises are made. Planning Commission determines the size of plan and intersectoral allocation. In Railways there are 2 parameters. Railways are the major carriers of goods traffic and there is also passenger traffic. Some of the goods traffic arises out of derived demand. When you have so many power stations you need so much of coal to be transported. So many industries require so many raw materials to be moved. So many industry means so many finished products are to be moved. All these exercises are done for various sectors over a 5- year period. Considering all these points, the carrying capacity of Railways is increased. Rolling stock increases; doubling capacity increases; line capacity and signalling are done; all these works follow. Then the next thing is availability of funds. So many competing sectors make claims on the limited resources. There is no uniform cut because priority sector is always taken into consideration. When we give more allocation for railways, it is because it is an essential infrastructure and it is the core of our economy. It means, certain investments elsewhere may even become infructuous or there may be serious consequences, if you don't provide infrastructural capacity to transport goods from one place to another. Now the modes of transport also gets changed. At one time in Europe and America Railways were the main carriers; now road transports have come up in a big way. There is also the pipeline transport.

The pipeline transport is a new technology which will also come here. Vast quantities of oil products, coal in slurry form and gas all these are transported by pipeline in many countries. Bulk of the demand for coal comes from the power houses and steel plants and if it is found to be more economical and viable to transport such commodities through pipelines, the pipelines will displace the railways.

Then the short distance traffic, if done by road transport, there is a greater satisfaction of the customers. The relative importance of railways *vis-a-vis* other modes of transport will change in the coming years. It may be that you have to allocate more funds to one or the other, but it is necessary to take note of the fact that when you have to move commodities in very large quantities, other modes of transportation would also come into play.

9. The Committee pointed out that although the rail was regarded as the cheapest mode of transport, allotment to railways not being sufficient only less than 8000 kms. of new track had been laid since independence. The Secretary (Expenditure) deposed as follows:—

“When we talk of track expansion, I think we should also try to see where the priorities lie. You have already got a certain extensive network of railway line. The additional traffic has been coming up on this network of railway lines with some expansion here and there. Steel plants, fertiliser plants, cement plants, all these have come up. And the line capacity, work, rolling-stock, all these are also required to cater to the goods movement. What you are saying is further expansion of lines. It may appear 8000 kilometres is too small. We are all aware of the phenomena every year, when Parliament Budget is debated, there are demands voiced by so many MPs about the absence of railway facilities in their areas. Everybody wants to extend the facilities, but ultimately there is problem of resources. Quite a large number of new lines have been started. To complete these lines within a reasonable period of time you require a certain amount of money. But the Government has been able to allocate only a small fraction of the amount required to complete the railway lines within a certain period. You may say it is neglected, but I would say the same adjective could be used for so many other sectors of the economy. You could say education is neglected, health is neglected. I am afraid it is a question of relative priorities and allocation of resources among the priorities. And this is an exercise which is done in detail by the Planning Commission and approved by the Government at the highest level.

If you think much more money should be given to the Railways, that money has to be taken from other sectors, such as Education, Health. After all size of the cake does not increase.”

10. The Committee enquired from the Chairman, Railway Board whether the investment in Railways, keeping in view the overall economy of the country, was adequate in the context of increased transport infrastructure needs. He deposed as follows:—

“Considering the economy of the country, the investment in the Railways has not at all been adequate. For improv-

ing the economy we have to provide more efficiency, more convenience, frequency and reliable mass-cum-bulk transport which is very necessary for our country. We require some more resources. Perhaps the correct step in this direction would be to see what is the bare minimum that we have to spend on opening out backward areas and new areas while at the same time where we would not be able to make fuller use of the existing assets available. We feel that existing assets could be very much better utilised due to which we will have enough money left which can be utilised for development of new lines. Some of the items are within our reach provided resources are made available because modern technology has advanced quite a lot and in that first and foremost we see speed is the essence of the transport. What is the real transport? It means more load, better speed and time factor has to be controlled. If you look after rolling stock and track, the service will be better. We should make full use of modern technology. We should go in for heavier sections of rail. We must go up to 80Kg.

Track—we have to improve the track fittings. They are prone to pilferage besides wear and tear. Designs are available which will require less renewal..... We are not adequately investing.”

11. The Committee pointed out that though the plan allocation had gone up from plan to plan at current price but there is no increase in real terms and enquired whether the investment was adequate enough to provide the infrastructure, which the Railways was expected to do. The Financial Commissioner, Railway Board replied:—

“It cannot be because the purchasing power of the money that is given to us is much less than what is nominally indicated. In real terms, it comes to very much less. I will go backwards. In the earlier years, that is, upto 1969—74, at the then prevailing current prices, it was Rs. 1428 crores and it became Rs. 1490 crores at 1970-71 prices. Later on, in the Fifth Plan, during 1974—79 the nominal allocation was Rs. 2062.74 crores which at 1970-71 prices, amounted to only Rs. 1269.60 crores. As regards the rolling Plan, in 1979-80, it was Rs. 714 crores at current prices and, at 1970-71 prices, it was Rs. 361 crores. In the Sixth Plan, the figure was Rs. 5100 crores at current prices, but at 1970-71 prices it was Rs. 2593 crores. At this rate, in absolute terms, the money has been increased but, in real



terms, we are nowhere our actual needs. Our talks with the Planning indicate that they are sympathetic and receptive to us, to the transport and communication sector and we are hopeful we will get more allocation for 1984-85."

12. According to the Planning Commission within the transport sector the requirement of Railways are worked out on the basis of their needs and availability of resources. As a result of inadequate investments in some years, there have been occasional bottlenecks in the transport sector and it has also caused delays in the replacement and rehabilitation programme of the Railways. The Secretary, Planning Commission informed the Committee during evidence that it was rather difficult to pinpoint the specific years in which investment in Railways was not adequate. The bottlenecks in the provision of transport services by the Railways in the past had been on account several factors such as inadequate investment, existence of over-aged assets and deterioration in operation efficiency. The replacement and rehabilitation programme of the Railways suffered mainly due to reduced level of contribution to the Depreciation Reserve Fund by the Railways from 1966-67 onwards till the beginning of the Sixth Five-Year Plan.

13. The Committee enquired from the Secretary (Expenditure) the extent to which this imbalance could be corrected in the current and ensuing plan periods. He stated:—

"I agree entirely and share your concern. It is very necessary that maintenance is given proper attention. Lack of adequate allocation for maintenance, not only in Railways but in various sector of the economy is rather disturbing. If you do not maintain the assets created, they will deteriorate and you will have to spend much more later on. In the case of Railways, there are track renewal arrears, replacement of over-aged wagons, replacement of other types of equipment, modernisation of workshops etc. to be done. I don't think there can be any two opinions that these should be given the maximum possible help because they pay direct dividend. These programmes naturally will have a preference over proposals for expansion of Railway lines. Every effort is made every time to see that as much money as possible is given for these programmes. But I am sorry to say, that due to constraints on resources, it is not possible. If railways can raise more resources, naturally, these will get even more attention than they are getting today."

The Chairman, Railway Board informed the Committee in this connection as follows:—

“As far as money value was concerned, due to total erosion we have suffered. Besides that, the First Plan was considered to be a rehabilitation Plan to get over the ravages of the world war from which our coaches, rolling stock, track and workshop got damaged. There again, the war ravages and the neglect being very large, some amount of money was given to us and we were in a position to do anything worthwhile. Then we have had to wait for nearly 17 years to modernise our workshop. In the last 3-4 years, we have taken up modernisation of our workshop in a big way. The Second Plan directed towards developing industry and those were the years when all the steel mills came into being. All the money was spent in developing wherewithal and infrastructure for those mills and so on. Here, again we found that we did not get adequate money in doing our legitimate work and improving the conditions of the track. When we went to the Third Plan, suddenly it was found that the tempo of traffic had changed and the core sector like steel plants, thermal power stations, etc. demanded immediate movement of coal. So, again, we thought that we must get locomotives immediately; without them we could not make progress. So we went in for dieselisation and electrification.”

14. In a note regarding integration of investments in other sectors and Railways, the Planning Commission have informed the Committee as follows:—

“The investment in rail transport infrastructure is determined on the basis of freight traffic requirements in sectors like Agriculture, Industries etc. The Planning Commission's input-output model gives a macro picture of the overall transport demand based on the projected growth rates of industry, agriculture etc. and this broad picture in addition to micro commodity studies for major users of transport is done by the Working Group at the time of the formulation of the five year plan to ensure integration between investments in industry and rail transport. The projected demand as a consequence of the investment in industries, therefore, is built in and integrated with the investment requirements in rail transport infrastructure.”

15. Elaborating on the note mentioned above, the Secretary, Planning Commission observed during evidence as follows:

"The input-output model is a broad model it is made use of for the purpose of planning and it gives us the demand on an overall basis and principally it is concerned with the movement of freight. Then the micro level estimates on the basis of particular commodities and areas are made through separate studies.

Both the input-output model and micro level studies are on the basis of selected commodities on the co-efficient ratio of rail transport as available at that moment and on that basis estimates are made. It is possible that some of the estimates do not turn out to be correct and as a result, there is some imbalance in some areas, but the input-output matrix is made use of on overall basis, the micro studies are made for specific commodities for transport and every effort is made to update this with reference to the available information. Even the procedure for estimation of demand is modified from time to time. We always have to take note of whatever is happening during the Plan period or between one plan period and another. This being done."

16. In regard to refinement in the existing system, the witness suggested:

"...We do take into account the improvements that are possible in the estimation procedure. But if you ask me whether any refinement is possible, I would say that the traffic flow data must be available more quickly so that it is possible for us to analyse it in a more scientific manner. For this purpose, computerisation in the Railways is absolutely necessary. They are implementing a scheme and it is our hope that if, on a computerised basis, the data is made available and the data will be up-to-date and it will be available immediately, the corrections and revisions can be made by us."

17. On the Committee pointing out that in spite of this integration in investment in some sectors/areas the demand was more than the rail capacity or *vice versa*, the Secretary Planning Commission agreed by saying:

"...in some areas you have surplus and in some others deficit. But the point you have raised is due to a number of extraneous reasons in the post-plan period. If during

the plan there are two drought years and economic growth is affected, these will have an effect not only on the railway traffic but also on many other things. All these have had an effect. It is true, some kind of projections can be made and some alternatives can be thought of. That is one refinement we can think of. The real anomaly would be that in some areas you have surplus and some others you have deficit. There, our forecasting should be more scientific to avoid such things. Even so, in any situation there will always be circumstances which alter the assumptions that have been made and on the basis of which the plan has been prepared and we must be prepared to revise the plans."

18. The Ministry of Railways in a note submitted after the evidence confirmed this anomaly as follows:

"It is true that in certain areas the rail capacity does not exactly match with the demand, the capacity may be more than the demand in some areas whereas in some others it may be short of demand.

Presently, the demand is estimated on an overall basis with the help of Input-Output model. Demand for specific commodities for specific areas is assessed, to the extent possible, through separate studies and services. In a continuously changing economic situation it is not possible to exactly match the sectorwise demand and supply for transport services. An attempt, however, is made to develop transport capacity ahead of expected demand so that bottlenecks do not arise. Rail capacity can, however, be created only in lumps and a nice balance between the projected demand and the available capacity is extremely difficult. Besides creation of transport capacity requires considerable investments, availability of which depends on the resources that can be mobilised at national level.

The estimation procedure is continuously reviewed and methodology is refined based on data available. A significant improvement is possible only when adequate traffic flow data is available, which may be possible only after the computerisation scheme on the Railways has been implemented."

19. Asked what was the proportion of internal resources to the total plan outlay on Railways, following information was furnished by the Secretary, Planning Commission during evidence:

Plan	Percentage
First Plan . . . . .	66
Second Plan . . . . .	47
Third Plan . . . . .	32
Intermediate period . . . . .	42
Fourth Plan . . . . .	38
Fifth Plan . . . . .	36
1979-80 . . . . .	30
1980-81 . . . . .	34
1981-82 . . . . .	46
1982-83 . . . . .	54 (R.E.)
1983-84 . . . . .	56 (B.E.)

20. Asked to suggest cost reduction measures with a view to generating greater internal resources for investment, the Secretary, Planning Commission stated:

"In the total cost of Railways-staff and fuel are two major components and any reduction should be concentrated to begin with on this area. As far as this operational efficiency, you can economise in fuel. In the case of fuel, reduction of steam traction will itself lead to saving in the matter of fuel and electrification will result in greater saving."

The representative of the Planning Commission supplemented by saying:

"The expenditure incurred by the railways is primarily on manpower and on material. We have suggested for more than one reason for acceleration of the electrification programme to reduce the dependence on liquid fuel; and this would incidentally bring down the fuel cost and the fuel bill of the railways. Coal is very expensive to use on the locomotives *vis-a-vis* electrification."

21. To a suggestion of the Committee whether it was feasible to plough back the dividend paid by the Railways to the General Revenue exclusively for track expansion, the Secretary, Planning Commission reacted as follows:—

"It will be difficult to accept this suggestion. There is a total kitty which the Government of India has. Their resources are made available for investment. Whatever method you may employ, the total remains the same. The Government of India is responsible as much for provision of fund for railways as for other areas. The dividends are a payment made to the government; this is a source through which the government are able to meet their loan servicing liability. The Government borrows money; they have to make interest payment. The Government has to get money from the dividend and other sources. So, to say that the dividend should be earmarked for the railways in the ultimate analysis will not help."

22. In regard to Railways being permitted to raise their own resources, he stated:

"The Government of India is a single entity. It has got several sources of revenue. These have to be pooled. If non-plan expenditure is provided, we have to find resources for the plan. To earmark in this manner in the ultimate analysis is not going to help. They have the responsibility for other sectors also. DRI level fall and that is why many programmes suffered. But to earmark a particular source of revenue to the railways for a particular purpose would not help either the railways or the government as a whole."

The Secretary (Expenditure) reacted by saying:

"The Government of India raised the funds. Even the public borrowing of the States is done in a coordinated fashion because the total borrowing is fixed. Merely by permitting the Railways to borrow you are not increasing the size of the total fund available or possible market borrowing..... As a matter of policy if you are referring to commercial borrowing we will not recommend that because there is a very high rate of interest on that."

23. To a suggestion of the Committee whether a separate fund be created to meet the requirements to track expansion/renewal, the Secretary (Expenditure) reacted by saying:

"I personally do not think that creating of funds is going to help matters. We may put in one fund calling the Consolidated Fund of India; whether you have other funds or not the purpose is the same. If you segregate or earmark by putting into a separate compartment certain quantum of funds, to that extent the allocation made for the Railways will be less. It is only an optical illusion that creating funds you get more funds. I do not think that it is correct. Normally, if I may say so, from the operational fund and other resources they should be able to find funds. I think it is not advisable to have such a fund. The reason is this. Suppose, if you create fund of Rs. 50 crores, you want to use it for new lines. And then you will find that there is an acute shortage of rolling stock or other things, track replacement is there and to spend on those things you will have difficulty. That is from the already existing funds you spent Rs. 50 crores but on new lines as well as the other existing works if you spend more it will carry more traffic. You might be spending on lesser priority things rather than on higher priority things."

## B. PLAN ALLOCATION FOR NEW LINES AND LINE CAPACITY WORKS

24. The outlay and expenditure on new lines and on traffic facilities which include gauge conversions is given in the table below:—

*Plan allocation/expenditure on New Lines and Line capacity Works.*

(Rs. crores)

	New Lines		Traffic facilities Line/ Capacity Works	
	Outlay	Expdr.	Outlay	Expdr.
First Plan (1951-56)	34.18	33.35	N.A.	N.A.
Second Plan (1956-61)	66.00	77.83	186.00	173.44
Third Plan (1961-66)	147.00	211.96	183.00	320.48
Annual Plans (1966-69)	65.29	56.16	161.65	128.44

1	2	3	4	5
Fourth Plan (1969—74) . . .	83.00	66.68	315.00	224.97
Fifth Plan (1974—79) . . .	97.00	114.19	316.00	289.97
1979-80 Plan . . . . .	42.00	41.21	95.00	104.46
Sixth Plan (1980—85)	380.00	—	400.00	
1980-81 Plan . . . . .	40.65	42.06	96.96	141.49
1981-82 Plan . . . . .	38.69	46.30	130.75	160.01
1982-83 Plan . . . . .	67.00	66.57 (R.E.)	90.00	97.27 (R.B.)
1983-84 Plan . . . . .	70.00	—	153.00	—

25. According to the Report of the Comptroller and Auditor General of India for the year 1981-82 Union Government Railways following expenditure has been incurred under the Plan head "New Lines" and "Gauge Conversion Doubling and other traffic facilities":—

(Rs. in crores)

Main Plan head	1980-85	1980-81 Actuals	1981-82 Actuals	1982-83 B.E. 1983-84	Balance provision for the remaining period (Approx.)
New Lines . . . . .	380	42.06	46.19	40.53	251
Gauge Conversion Doubling and other traffic facilities . . . . .	480	141.43	157.11	61.98	126

26. At the commencement of the Plan (1951) the route length of the Railways was 53,524 kms. The route length added thereafter upto 1981-82 was 7731 kms. The expenditure on new lines, which was Rs. 33.35 crores in the First Plan rose to Rs. 211.96 crores in the Third Plan but decreased to Rs. 66.68 crores in the Fourth Plan and slightly increased to Rs. 114.19 crores in the Fifth Plan and Rs. 154.93 crores during the first three years of the Sixth Plan. The outlay on new lines for the Sixth Plan is Rs. 380 crores. The expenditure during the three years of the current Plan is much less than the proportionate outlay.



### C. NEW LINES

27. At the commencement of the Plan (1951), the route length of the Railways was 53,524 kms. The route length added thereafter upto 1982-83 is 7858 kms. The construction of new lines, doubling and gauge conversions constitute a continuous process. Works started in one Plan may get completed in the subsequent one. The physical achievements of new lines, gauge conversions and doublings in the different plan periods are given as under:

*§ Kms. of New lines, Gauge Conversions and Doublings achieved under Plans*

(Kilometres)

	New lines	Gauge conversions	Doublings
First Plan (1951-56) . . . . .	1300	56	370
Second Plan (1960-61) . . . . .	1253	89	1514
Third Plan (1961-66) . . . . .	2198	346	3228
Annual Plans (1966-69) . . . . .	1060	Nil	1277
Fourth Plan (1969-74) . . . . .	681	326	1452
Fifth Plan (1974-79) . . . . .	798	479	550
Annual Plan (1979-80) . . . . .	140	Nil	75
1980-82	301	745	311
1982-83	127	162	72
	7858	2203	8849

28. The Ministry of Railways has stated in a note that it is not possible to indicate physical targets under different plans and to compare these with achievements. The progress of such works is mainly determined by the availability of funds for the total plan of the Railways which in turn depends on the total resources that can be mobilised and the requirement of other sectors.

29. The report of the Comptroller and Auditor General of India for the year 1981-82—Union Government (Railways) however states that the physical targets set in the Sixth Plan as available under

some of the main plan heads and the actual achievement there against during the first two years are as under:

Particulars	Physical targets (1980-85)	1980-81	1981-82	Extent of arrears of renewal of track repla- cement of rolling stock due as on 31-3-1982
1. *	*	*	*	*
2. Track renewals (Km)				
(a) Primary	6000	880	1270	10900
(b) Secondary	2000	216	293	6540
3. *	*	*	*	*
4. New lines (Kms.)	700	150	150	..
5. Doubling, gauge conversion (Kms.)	700	454	178.6	..

30. When the attention of the Secretary Planning Commission was drawn to these targets, he replied:

"We will have to verify this. I do not know whether they have taken into account the balance remaining at the beginning of the Plan. It is possible that they have taken into account the balance that remained at the beginning of the Plan, what was executed in the Plan and totalled the two and given it as the target. That really is not the target because it is not possible to complete the whole thing within the plan.

These are derived targets. What I wanted to say is that unlike in some other cases where we say this is the target and this is the actual production, in the railways we cannot produce and we do not start by saying that this is a specific kilometrage for new lines, this much kilometrage for doubling and this much km. for gauge conversion. We do not say from plan to plan. But derivation of the target may be possible only with reference to the target dates."

31. The machinery for planning projects on the Railways is generally as follows: When a demand is made for the construction of a new line based on *prima facie* needs of traffic or development,

the Ministry of Railways undertake techno-economic feasibility and traffic surveys in respect of proposals for construction of new lines, required to meet the needs of traffic. Surveys are also undertaken by the Railways on the basis of requests received from the State Governments. Certain proposals required to meet the rail infra-structural requirements in respect of a specific project like steel or fertilizer plant are also considered. These surveys conducted by a team of officers of different disciplines, including finance, work out the traffic demands and the financial return on the project. The proposal also spell out the benefits that would accrue as a result of the construction of the projected new line. The survey reports are examined in the Ministry of Railways before proposals are sent to the Planning Commission. Apart from the examination which is done in the Works and other Directorates of the Ministry of Railways, there is, in addition, a separate Economic Unit in the Ministry which is also available to the Ministry for examining and appraising such reports.

32. A large number of surveys are undertaken by the Ministry of Railways and these survey reports constitute an available shelf of projects.

33. According to the Planning Commission, the criteria adopted for investment in the Railways taken into account the projected transport demand and the need to create adequate capacity, both line capacity and rolling stock, to meet the projected levels of traffic of freight and passenger transport. It also takes into account the requirements of rehabilitation and replacement of assets as well as investments required for modernisation, upgradation of technology, Costs reducing investment like electrification investment for achieving self-reliance in the production of major equipment required for Railways and for expansion of the network to meet the development needs.

34. The Committee enquired whether there was a system of earmarking of a certain proportion of Plan allocation for Railways for new lines and if so, how the *inter se* priority for investments in Railways for various purposes was determined. The Planning Commission have stated in a note as follows:

"There is no fixed proportion earmarked as part of the total Plan allocation for Railways for the construction of new lines. The outlay for the new lines is determined on the basis of the requirements assessed by the Working Group and the projects that are proposed to be taken and the available resources during the Plan period.

The Railways have a large number of Plan Heads including line capacity works, acquisition of rolling stock, creation of maintenance facilities, replacement of assets, electrification etc. On the basis of available resources funds are allocated for meeting the minimum needs of all Plan heads to meet the projected demand for traffic in consultation with the Ministry of Railways."

35. The allocation for new lines constitutes a separate head—"new lines", whereas gauge conversion and doubling of lines form part of the head "line capacity works".

36. Further elucidating the policy in regard to construction of new lines, the Planning Commission have informed the Committee in a note as follows:—

"The policy regarding construction of a new lines is an admixture of various elements and considerations like (i) commercial needs, (ii) development of backward regions, (iii) achieving regional balance, and (iv) strategic and other considerations. New lines, while serving the needs of specific projects or commercial needs, also help in developing areas through which they pass. The broad policy followed over the years has been to first restore the lines which were dismantled during the War and later, by and large, to provide new lines to meet the needs of movement of raw-materials and finished products for industrial development and for carrying additional traffic. The policy followed has been broadly to provide new lines on the consideration of meeting the needs of industrial projects, to serve as strategic lines, to give access to under-developed areas and to provide an alternative route or an extension of an existing line to cover missing links. The policy has not undergone any major change. The National Transport Policy Committee which has considered the criteria for taking up new lines has also reiterated a policy of taking up new lines for industrial development, to provide missing links, on strategic consideration and for establishing new growth centres or giving access to remote areas."

37. The National Transport Policy Committee have also made following recommendations in respect of investment criteria for new lines, which have been accepted by the Government:

1. Investment criteria for new lines should take into account the financial return and benefits to the economy. A wider social cost benefit criteria for appraisal needs to be applied. Construction of new lines should be taken up to fulfil the following objectives:

- (a) as project-oriented lines to serve new industries or tap mineral and other resources;
- (b) to serve as missing links which can form alternative routes to relieve congestion on existing busy rail routes;
- (c) on strategic considerations;
- (d) as developmental lines to establish new growth centres or give access to remote areas. In such cases a lower rate of return than stipulated for normal projects may be agreed to but it will not be advisable to take up new railway lines which cannot meet operating costs including contribution to depreciation.

In respect of backward and isolated areas, the Sixth Five-Year Plan document (1980—85) states as follows:

"It would be necessary to pay special attention to backward areas through a proper network of transport linkages, mainly through the construction of rural roads under the Minimum Needs Programme. It will also be necessary to provide special transport facilities at reasonable rates to isolated areas like North East, Andaman and Nicobar Islands, Jammu and Kashmir and also to hilly areas in general. In this context, a number of projects in the railways, as well as in the roads and bridges sectors, have been approved and in respect of air services a third level air service for the North Eastern Region would be introduced."

(Para 17.23) and

"To give a special attention to the transport needs of remote and isolated areas, such as the North Eastern Region."  
[Para 17.30 item (h)].

38. According to Planning Commission, provision of rail facilities alone will not result in development of such areas and an integrated plan where natural resources exist need to be prepared. Again, the potential traffic demand in such areas would indicate the mode with the least resources cost for providing its transport needs. It may not necessarily require a capital intensive rail infrastructure for all areas.

39. Asked whether any weightage was given to the development of backward areas, while sanctioning the new lines, the representative of Planning Commission stated:

"The opening of new and backward regions is to be seen in totality, and not in terms of rail transport alone. However, when a proposal for a new line comes which serve, among other things, the needs of a backward area, such a line would obviously be given priority.... But even where a line is constructed for a project or for a strategic purpose it may pass through, and thus serve backward areas. A railway line in a backward area by itself will not be able to do anything.

The National Transport Policy Committee had examined this and found that unless the potential of that area is also tapped in other sectors e.g., minerals etc. the desired development may not result.

He further added:

"There is a possibility of an integrated development if an area is being thought of from the point of view of industrial development and of tapping of its mineral resources etc. and simultaneously of having a railway line. Both may have long gestation periods. I don't think it is right to make an investment first in a railway line in an area, which may have mineral potential and to say "Let the line go there and let us wait there for the gestation period for the mineral potential to be tapped." If it is integrated in the beginning, it will give benefit to the industries and give a return on the line."

The Member (Engineering) however, stated during evidence as follows:

"It is not that a particular line has been constructed for a backward area as such. There are about twelve lines which have been identified in the list, which we will give you; those are not remunerative, but they have been taken up for general improvement of the area also. So far we have not constructed one line on the basis of backward area alone; there are other considerations also. For a new line, the development of a backward area has not been the primary thrust."

The Financial Commissioner added:

"For development of backward areas, there are various incentives given to the industry. Let some incentive be given to the railways also in some form for this."

40. The National Transport Policy Committee considered the question of regional disparities in regard to rail services in depth in their Report. The observations are reproduced below:

1.5.3 "During our visits to various States, we were faced with persistent demands for investment in capital intensive transport projects, particularly new railway lines, on the ground that this would promote development of the under-developed areas. We have given serious thought to the question of whether transport investment is really an essential pre-requisite for economic development, or it should follow development of other economic activities which generate adequate demand for transport services. Endowing an area with a highway or a rail head will not by itself result in an upsurge of new industrial or agricultural activity. Apparently, expansion of transport is permissive; it enables a dynamic developing situation to work its way and can reinforce existing motivations. The degree to which transport creates or compels new activity will depend upon other equally necessary conditions within the economy, such as the quality of its administrative structure the zeal and derive of its entrepreneurial class, and other dimensions of the people's propensity to grow. If these qualities are deficient, transport investment is unlikely to start the process of self-propelling growth."

1.5.4 "While, therefore, we do not subscribe to the view that transport investment will by itself bring about economic uplift of backward areas, we, at the same time, consider it necessary to emphasise that inadequacy of transportation acts as an inhibiting factor in the actual process of development. As development planning has become an integral part of the economic way of our life, the chicken-or-egg-first argument for transport is of academic interest. As we have stated, construction of a new railway line or a road in a less developed part of the country will not automatically bring about an economic

transformation of the region. But if construction of such a facility forms an integral part of development plan for the region and selection of the project is based on comparative cost analysis of different modes of transport, its construction *prima facie* will be an essential precondition, without which development of the region will be hampered. In such a case, any delay in construction, of the project until sufficient traffic demand for the service builds up is like putting the cart before the horse. Indeed, in planned development, where different sectors of the economy are expected to grow in close coordination, transport is only one of the essential elements of an integrated plan for area development."

41. According to the Planning Commission, Regional disparities taking rail transport alone may not reflect the total transport disparities between different regions as there are other modes of transport. Depending on the location, natural advantage, traffic potential, etc. in the areas the most suitable modes of transport needs to be provided for the region. Rail transport is developed in areas taking into account the traffic envisaged, strategic considerations and needs for overall development of the region.

42. To a question by the Committee during evidence as to how the far-off and backward areas would be connected, the representative of the Planning Commission informed that:

"Not every area is possible to be connected with the railway line. It is not physically possible. Given the resources of the country and the time available. It may be expensive, it may not be necessary, it may not be desirable. But what the hon. Member is saying that certain areas which are not accessible should be provided accessibility is well taken note of and well understood. There are 6-7 lines that have been difficult to lay in the North-eastern region. I do realise that taking up lines in areas where the terrain is more difficult in the Bills is not economical, but it is an economic proposition to provide road transport."

#### *Rate of return*

43. It would, therefore, be seen that the schemes for new lines are considered by the Planning Commission on the basis of recom-



mendations made by the Railways keeping in view the traffic projected on such lines, the linking of specific projects like steel plants and other major industries, development of backward areas and the return on the project. According to the Planning Commission the clearance of individual projects is on the broad criteria of traffic needs of development. A project is considered financially viable if the rate of return is 6.75 per cent in the sixth year under the conventional system and 10 per cent under the discounted cash-inflow technique.

44. During evidence, the Committee enquired from the Secretary, Planning Commission whether all the projects satisfied the criteria of rate of return being 6.75 per cent. The Secretary deposed as follows:

"These are criteria on the basis of which projects are assessed. But exceptions are there. There are cases where even these criteria are not satisfied. Projects are taken up and that is done in cases where it is necessary to do so for development of a particular area or in the general interest of development or it is necessary to have a connecting link which in itself may not satisfy this criteria but which has a connecting link. We have an economic effect, which is much larger than this, and lastly it is for strategic reasons. Where strategic reasons are involved, we cannot be as strict as this.

Exceptions are made. But this is the general rule."

A representative of the Planning Commission supplemented by saying:

"6.75 per cent been taken as the minimum return so as to make project economically viable. This is borne by the dividend required to be paid by the Railways. It is 6 per cent. In order to have marginal surplus over the minimum requirement which is the interest liability, it is 6.75 per cent. This was considered as a financially viable proposition."

45. To a query of the Committee whether the rate of return of 6.75 per cent was really being achieved after the sixth year of the completion of the project, the representative of the Planning Commission stated:

"To the extent that 6.75 per cent is actually coming after the sixth year of the operation of a line and it meets 6 per cent as the overall dividend liability, it does have a 0.75 per cent as the margin available. We have had a study, which was conducted by the National Transport Policy Committee of the railway lines that were constructed in the last 25 to 30 years. In a fair amount of cases, they found that the rate of return was higher than 6.75 per cent after 15 to 20 years. It would vary naturally depending upon what the actual traffic has come in. "Transport" being a derived demand, the return on the project would actually depend upon how far the assumptions of traffic have come true."

46. To another query whether there was any feed-back after completion of a scheme or project to determine how far the original anticipations materialised, the Secretary, Planning Commission replied:

"The Railways gather data and study over a period of time about the return and how they compare with the assumptions at the time the project was sanctioned. The Planning Commission itself does not have a regular feedback of this type. However, when discussions come up, the data are made available to the Planning Commission. In specific cases, where it is necessary Planning Commission obtains data and studies them and where necessary we assess the implication of this data. The Planning Commission does so, but on a regular basis, the feedback is given to the Railways who obtain data and studies them."

The Financial Commissioner, Railways clarified the position during evidence as follows:

"As far as review of materialisation of projections is concerned we have what is known as a productivity test. In the case of new lines it is done after three to five year of opening. And this is done on the same lines as the estimate was prepared at the time of the sanctioning of the project. This will be from the date of commissioning and up to 11 years we have to do it on an annual basis. This Committee had recommended earlier sometime back that it should go up to 15 years. There are other things also. This comparison is with what was taken at the time of the sanction namely the assessment of the traffic,

capital investment, the actual expenditure and the rate of return, these are all taken into account. The final estimate is taken, and the expenditure is on the basis of the final estimate. The rate of return as originally envisaged is check up."

He added:

"One line was opened in 1963. When the project was sanctioned the return was expected to be 4.76. The actual return was 16 per cent. And after a few years the actual return was 81.74 per cent. On another line, Hasan-Mangalore line which was opened in 1979, the return expected was +2.26 per cent but when we did the review in 1981-82, we found it is -2.20 per cent. Again on South-Eastern Railway K.K. line was opened in 1963. The project report had estimated 3.22 per cent but because of iron ore export picking up during certain years, in 1980-81 the actual return was 15.79 per cent. On the other hand, on Sarai Ganj-Pratap Garh Line, which was opened on 5-6-1975, we had anticipated 3.48 per cent return but actually in 1981-82 it was—11.81 per cent. The projections are based on traffic anticipated for about 10—15 years."

47. Asked to indicate the percentage of lines which gave better return than that was anticipated, the Chairman, Railway Board stated as follows:

"Sir, out of 9 lines, the return has improved in the case of five lines and it has deteriorated in the case of four lines. In the report of the National Transport Committee you will find that this question had been gone into. They analysed the return in respect of 34 broad gauge and 15 metre gauge new railway lines. A study of these lines shows that the lines which have not proved remunerative are those which were specifically conceived to fall under the following categories:

- (a) strategic lines like Rangapara North Lakhimpur-Morokonselek and Pokaran-Jaisalmer;
- (b) new lines constructed in place of narrow gauge lines like Barasat-Hasanabad and Bakhtiarpur-Rajgir to serve suburban and pilgrim traffic;
- (c) alternative routes or missing links like Singhrauli-Katni Line, Khandwa-Hingoli line, Salem-Bangalore line, and Ghaziabad-Tughlakabad diversion line; and

(d) lines to provide access to under-developed, remote and backward areas like Kalkali ghat-Dharamnagar and Burhan Etah.

In other words, all these lines have served the purpose they were designed for at the time of construction, and the rate of return, was except in a few cases, more than what was originally anticipated."

48. The Financial Commissioner, Railways, however, pointed out that there were certain limitations, if the originally expected traffic does not materialise and cited the following example:

"For example, Khetri Copper Project wanted a line and they guaranteed the traffic for us. We built that line at the instance of the Ministry of Mines. 3 or 4 times the Railway Ministry opposed it, saying 'we do not see any traffic materialising'. But after the project was set up, they found that all the calculations about the quality of copper were wrong. The traffic did not materialise. Then as bad luck would have it they were not able to find a market for even the little they produced. They had to make all the transportation by road. We had taken a guarantee from them that if they do not give us the promised level of traffic, they would pay us for that traffic. This is an instance where a public sector undertaking was made to enter into an agreement that if they do not provide the traffic they will compensate us. Later on, they tried to resile from it and we were grilled by the PAC. In such cases, we feel that they should take over the lines and use as their siding. This is a case where their anticipation has gone wrong. There are some cases where we have got a very wide variation on the plus side. It is bound to vary. The position can fluctuate from year to year."

The Member (Engineering) agreed when the Committee pointed out the broad criteria was strategic, commercial points of view, backwardness of the area and the missing link.

49. The Railway Convention Committee drew attention of the Ministry of Railways (Railway Board) to a statement contained in the National Transport Policy Committee Report (pp. 158—160) from where it was noticed that in most cases the rate of return estimated by the Railways, which usually forms the basis of Railway Board investment decision for starting a new line, was quite

off the mark. Only in case of six lines out of 34, the return actually obtained was within a margin of 50 per cent of the Railway Board's calculations. By and large, the actual return was more than that was estimated and in some cases there was no relationship between the Railway Board's estimates and the actuals. There were only two cases where as against plus expected return, the actual return had turned out to be minus. The committee desired to know whether this disclosed weakness in the survey and investigation of projects and the estimation of costs and benefits. The Ministry of Railways (Railway Board) submitted the following note in reply:

"This point has been based on the Report of the National Transport Policy Committee regarding 34 BG constructed by the Railway during the period 1950—76. The information on pages 158—160 of the Report does not compare the anticipated return with actual return obtained in the sixth year of opening (which as noted by the RCC was the point of time for determining viability of a project under the conventional system), but with the return obtained in the year 1977-78—which year (1977-78) in many cases is much after the sixth year of opening.

Nevertheless there is invariably a time difference between the project completion anticipated in the survey report and actual opening of the line. In the intervening years, there can be other developments in the area served by the new line. The actual costs of work can be different. The rail tariff and expenses also undergo a change.

The rate of return after a few years of opening depends on various factors i.e., volume and growth of traffic, development of industries etc. Cost escalation by itself is not the only factor affecting the rate of return.

In a view of the above, it cannot be concluded that there are weaknesses in the survey and investigations of the project."

50. The Committee discussed the matter with the representatives of the Railway Board on 6 July, 1984. The Committee enquired whether there was a regular system of obtaining feed back in respect of each line commissioned in order to compare the project report anticipations with the actuals. The Member (Engineering) informed the Committee that there was such a system. The Financial Commissioner supplemented by saying:

"I would like to submit that there is a system for post-project appraisal and this has been laid down in the

Indian Railways Finance Code, in paragraphs 243—247. According to this, in respect of every new line, the individual Railway have to submit before the 31st December in any calendar year the working of the new line after it is commissioned, in a standard form. This statement gives a lot of information. This statement gives the year-wise particulars of the earnings as well as expenses. The Railways are also expected to maintain statistics of passenger earnings separately, the tonnage of goods traffic which has been moved, the earnings therefrom etc. Normally these statements are required to be submitted for a period of 11 years unless in the light of the information submitted the Railways come to the conclusion that a certain amount of stability is reached and it need not be sent any longer. This return which is received in the Railway Board is personally seen by the General Manager. I would like to submit that a number of explanations for important variations between the actual realisation and what was projected initially is also given in that. The cash flow is compared to the estimated projected cash flow at the project stage. This should also indicate the probable traffic in a foreseeable future. This, in brief, is the system and we receive such statements from all the individual Zonal Railways”.

51. The Chairman, Railway Board further explained that:

“I have something to say specifically in the matter. There is a time lag between the survey as we take up and completion of construction. After survey we get ready to pletion of construction, then it takes much more time to complete the construction and all these depend upon a number of imponderables. The realative priorities from year to year given by the Planning Commission determine the progress of work. Then the financial constraints also apply here. Over and above that, at the end of it, unfortunately there is no specific system today of updating the survey report as had been originally done, on the date of completion of work. In the meantime,, there are some instances where it takes even 10 years for the entire work to be completed. Many many changes take place in that area. Industries come, agro-industries etc. keep on increasing in a particular area and the entire shape of things change. So, to my mind, it would perhaps be a step in the right direction if on the date of

1981 or 1982 the new engineering Code has come wherein many of the ideas which are more relevant to our conditions and to the present management philosophy have been incorporated."

56. Explaining further particularly with reference to the question of updating of surveys raised by the Committee, the Chairman, Railway Board informed the Committee as follows:

"...the strategic needs of the area of the country take quite a premier place. The second aspect is project oriented, the line which again is in the interest of the nation, say, for developing cement plants, steel plants, etc. We expect that in the Seventh Plan some more orientation towards the development of backward areas will be given. Fortunately quite a lot of the unexploited areas, which are now backward, but very rich in mineral wealth, geological wealth, etc. gradually steadily finding a place in our surveys. There is one particular point.....raised for which we do not have an answer today. He observed that lines have been surveyed in the past and found not viable at that time, but later on sea changes have taken place and the area has developed industrially and otherwise, and he wanted to know whether there is any system to review such surveys from time to time. I am afraid there is no automatic system or automatic machinery to take up and update such surveys and to send the revised information to Planning Commission. This is a lacuna.....When some changes have taken place and various industries have come up, it has to be updated..... We will examine the issue and come up with a solution."

57. The Committee were informed that although the relevant data was obtained from the concerned Ministries and departments of the State Governments, the Railway Survey team made its own assessment. On being asked whether it could not be better if after the survey team had made its own assessment, the State Government were again consulted, the Chairman, Railway Board deposed as follows:

"Before submitting the survey report, discussions will be useful if these take place with the State Government. I am not sure whether after finalising the report, there are any consultations. But the report is finalised after detailed discussions with the State Government concerned only normally".

58. Asked to comment on a suggestion that representatives of the concerned State and an outside expert should also be included in the survey team, the Ministry of Railways (Railway Board) submitted the following note:

"During the survey of a railway project the State Government officials are invariably consulted at various levels to work out the details like traffic offering, new industries etc. This system has been quite effective and there is no need for a representative of the State Government being included in the Survey team.

"The Railways have experienced teams of officers working on the surveys. It is not considered necessary to associate an outside expert, at the time of collection of data and formulation of the report of the survey team. However, it may be mentioned that after the survey report for a new line is received in the Railway Board's office the Economic Adviser is invariably consulted in the process of taking a decision on project investment. We are already taking steps to strengthen this organisation to the extent necessary, based on the recommendations of the Railway Tariff Enquiry Committee.

"It is reiterated that the present arrangements are considered adequate."

59. Explaining the role of the Economic Adviser, the Financial Commissioner Railways informed the Committee in evidence as follows:

"The Economic Adviser reviews the project report submitted by the Zonal Railways and renders economic advice to the railway Board in order to enable them to take informed decision. The Zonal Railways follows the procedure prescribed in the Engineering Code and the Financial Code. And when some cases are noticed where the forecasts are considered unrealistic or the methodology for the forecasting and the analysis is found to be inadequate, the Economic Adviser works out revised expectations of such projects and makes them available to the Board. The formation of this Economic Unit is at the instance of the World Bank and the post, of the Economic Adviser was sanctioned in late Sixties. The primary purpose was to have an outside supervision on the railways investment plans and decision. In keeping with



this objective the Economic Unit at the outset introduced the concept of discounted cash flow for the project approval. They have also come up with some important suggestions from time to time. The Railways normally take only the financial viability of the project into consideration, whereas the Economic Adviser keeps the broader aspects and national interest also in view and where considered relevant, economic costs are examined and incorporated in the advice, even though the same may not really enter the financial reports. I cannot say that we have reached perfection in the economic analysis, because it is a very difficult task, but an attempt is seriously being made by the Economic Unit in the Railway Board."

60. To another question whether the Planning Commission examined the merit of proposed Railway Projects and appraised them as in the case of those of Public Undertakings, the Financial Commissioner replied:

"In the case of a public undertaking, when investment beyond a limit is to be made, the matter is considered by the Public Investment Board, which is a committee of Secretaries. There, different aspects of the scrutiny are entrusted to different agencies like the Project Appraisal Division of the Planning Commission, Plan Finance Division of the Finance Ministry, as also construction and other divisions of the BPE in the Finance Ministry. They give their comments. All views are mentioned there. Then a decision is taken to recommend or modify or reject a proposal; and based on that, ultimately the Cabinet takes a decision. Powers have been delegated to the Railways Ministry to deal with their projects."

61. During evidence the Committee enquired whether any weight was given to the offer of a State Government land, earth work, etc. for construction of a new line, the representative of the Planning Commission stated as follows:

"In so far as the appraisal is concerned, remunerative point of view is concerned, there are other things which will have to be taken into account. If a State Government is prepared to make available free earth work and sleepers, etc. the work will progress in a faster pace. But each project can be considered on the merits of each case. There is no preference as such. What I am trying to say is if a line is

more important at a particular place, then it will be considered. If the State Government says "we will give the land and provide other facilities" it will not help much."

62. In a further enquiry if such facilities were to be offered whether a priority could be allotted to such projects, the Secretary Planning Commission reacted by saying:

"I can only say that when a line which has crossed the Stage-I and Stage-II and if it is in the third stage, to that extent, it will be closer with the on-going projects. Otherwise it has to wait. When we are in a stage of deciding whether a particular project should be included, should we not give preference etc. especially when help is coming from the State, my friend says, other things being equal, certainly 'Yes'. But in regard to making provisions, technically the work will go faster. So, what I am saying is that in making selection of the project, I have to take a decision between the two projects when things are being equal. But when you have offered land and earth work and other facilities, certainly the scale will tilt in favour of that project. But at the same time in the other case, if I have shortage of funds, the fact is that if fund is allocated, then that part will operate in favour of that project."

First of all, I would say if the State offers land, earth work, and the project has come to the third stage it will be taken up for completion but it does not mean that the State which has not given the facilities at all and in that State a project is in final stage, we must not take it up for completion. We must try to complete all these together.

But we agree that preference should be given to a State which has offered land or earth work etc. provided other things are equal in between the two project. But to decide whether a project is worthwhile for going ahead or not, this fact may not be relevant."

63. The representative of the Planning Commission, however, further added:

"If we give preference to such a State without considering other things, there are lots of pitfalls. We must look at the total economic benefits of a particular line taking into account all the cost that goes into it. It can happen that if

the affluent States start providing land, earth work etc., whatever little money is there, will go to them, and we might not be able to meet the needs of backward States. It has its own implications and pitfalls."

64. The recommendation of the National Transport Policy that during the next two decades, the railway network would need to be expanded by atleast 5,000 kms. has not been accepted by Government in toto. The view of Government thereon is that no specific track of kilometers for new lines need to be laid.

65. The Public Accounts Committee (1974-75) in their 171st Report had recommended that "the Railway Board should in consultation with the Planning Commission immediately draw up a comprehensive long term and clear cut plan for the construction of new lines on a systematic basis. The criteria to be followed in the matter of construction of new lines need to be clearly set out. The decision of the Government in this regard should be embodied in a policy resolution which should have the specific approval of Parliament." In their Action Taken Note, the Railway Board stated, "Railways would explore the possibility of giving the suggestion a practical shape". The Public Accounts Committee (1975-76) in their 191st Report noted the reply of the Railway Board and urged that "this should be finalised quickly and the policy in this regard clearly spelt out before Parliament."

66. When asked to give the present position, the Financial Commissioner Railways replied as follows:

"The Government has not accepted the recommendation. The reason given is that we cannot have a predetermined kilometerage to be built because the available resources will have to be spared out or allocated to various sectors from year to year according to priorities and needs. There is no need for predetermined figure of 5,000 kilometers we are adding about 200 kms. a year."

67. The Committee were informed that *inter se* priority between projects of new lines, doubling and conversions was considered broadly on the basis of projected traffic demand. During evidence the Committee enquired that when there was a shelf of equally feasible project and a choice was to be made within the resources constraints, which of the three, new lines, doubling or conversion, was preferred, the Secretary, Planning Commission replied:

"The projects in regard to construction of new lines on the one hand, of doubling of lines or conversion on the other are not dealt with together. But they are decided on the basis of priority and on merits. We do not regard them as competitive with one another. But we assess them on the basis of assessments made in the various areas. The question to be considered is what is the demand of traffic in that particular area and how best it can be met, and on that basis we take the decision. Schemes of conversion are considered on the basis of level of saturation reached and what we expect to be the traffic in that section. Similarly, schemes of doubling of single lines are taken on the basis of saturation reached and sometimes decision is taken that it is more economical to consider either conversion or doubling of a particular section than laying a new line. But where a section reaches saturation capacity, then alternative routes are considered in preference to new routes. Their competitiveness is considered and decision taken in favour of alternative routes.

It is not a question of making a choice between three mutually competitive proposals, but a decision is taken in regard to the desirability of a particular proposal with reference to the traffic demand in the area."

68. On a further query whether a preference could be given to opening up a new area or to doubling of an existing line between two points, the representative of the Planning Commission stated:

"This is a question which would require to be seen in individual situations, and I do not think, a general remark can be made. But when particularly, a line is saturated on a double line section, before one goes to a third line, it might be better to look at an alternative alignment provided the overall economics are in favour of that. We cannot make a general statement. Of course, when we resort to doubling of a line the cost of operations becomes less, because the stations and other things are there. The second advantage is that the capacity has tremendous potential on doubling when it comes to automatic block signalling and no crossings are involved. Thirdly, while doubling starts giving benefits immediately, a new line gives benefits after the whole of the line

is completed. Within the constraints of these three possibilities, if an alternative alignment can open up a new area, but yet economical, it would be welcome. But each case will have to be considered individually."

He further stated that:

"It was not a question of either/or. Traffic has been increasing from 1950-51. We have carried nearly four times the traffic virtually on the same route, because the expansion of the new line is about 6,000 to 7,000 kms. The route remaining the same, the passenger traffic has increased by nearly three times, and freight traffic by four times. So, there has been pressure no traffic on the existing routes. The geography of the country being what it is, and traffic growing trunk routes, these routes have to meet this increase."

69. The representative of the Planning Commission admitted that it was very difficult to make *inter se* priority and say that we would have new lines in favour of doubling in all cases. Obviously it was not possible. He stated "There are cases where new line is given a lot of preference over doubling, where it is connected to a new project e.g., Koraput—Raigarh line. I do not think it is the intention that we have a list of new lines and only when the new lines are completed, then only the doubling will be taken up. This is not the intention. Looking at the individual situation and what the line is going to achieve, we give priority."

70. The Public Accounts Committee Report (1974-75) had pointed out that the proportion of expenditure on new lines to the total expenditure was steadily declining. Asked to comment on this observation, the representative of the Planning Commission stated:

"So far as the expenditure on new lines is concerned, it would be depending upon what are the amounts required under other plan heads and sub-heads. With the energy crisis, there is a big emphasis now on electrification of tracks. A new plan head where a lot of money is required to be spent is electrification. There is also the ageing factor. The Third Plan was a very big plan and now the equipment that was acquired then is coming in for replacement. So, a lot of money would go for replacement. The net work of rail system or any system is dependent on what the needs are. I have only on

observation to make, that accessibility and meeting the demands of transport of the people in a country do not necessarily have to be through rail transport and can be met through other modes of transport like roads. There has been a very big emphasis on the minimum needs programme on the roads. The Planning Commission have said that in the next ten years including Sixth Plan, all villages with population of 1,500 and above must be connected with a road. A railway net-work cannot go by its very design and technology to all nooks and corners. Accessibility is important for the people in the villages and the rural areas. Therefore, it is not that rail transport alone can meet the required objective of integrated transport or accessibility. In 1853, the only means of mechanised transport was the locomotive. The automobile came much later. If it had come before the locomotive, perhaps the maps of Indian railways would have been different. The maps of railways are changing the world over. The railways are designing to move bulk goods. If it is small traffic or passenger traffic, roads can provide better service. In an integrated system to meet the total needs of transport, I think all we need to look at is the transport requirements rather than only the rail transport requirements."

71. The Chairman, Railway Board had the following to say in regard to Railways giving preference to new lines, doubling and gauge conversion:

"What are the types of works which are normally undertaken by the Railways. These are, firstly, rehabilitation and renewals of existing assets which consist of permanent way, rolling stock, workshop, telecommunication etc. Second is, the construction of lines. This consists again of project-oriented lines, opening of lines in backward areas, strategic lines for Defence purposes and other lines for movement of essential commodities. Then we take up doubling to increase sectional capacity on various places and sometimes we have analysis from time to time and we have conversion of narrow gauge to metre-gauge for providing more paths where the developmental activities have taken place.

Doubling is normally for increasing section capacity and we do not have to go to Planning Commission for sanction.

in all cases of new lines as well as gauge conversion we have to get our Plan accepted by the Planning Commission and fund allocation made. There are fundamental items which go in first.

What is a backward area? Backward area according to our concept would consist of such areas where per capita income is low; the area is pastoral or with seasonal agricultural activity where nearly for six to seven months men and women do not have work or it is industrially backward in the sense that there are no industries.

Our country is not very rich to afford conversions. Conversion today costs us nearly Rs. 25 lakhs from one gauge to the other. New lines cost us Rs. 28 to 30 lakhs. It is better that we follow a different alignment, most advantageous alignment, and open new ones."

This is the case also for doubling. We come back with a view that it is a new line."

72. In regard to removing of congestion on trunk routes, the Chairman, Railway Board informed the Committee as follows:

"We cannot say there is no congestion on the traffic route connecting the metropolitan cities. While Bombay-Delhi, Calcutta-Delhi which are the metropolitan cities have a number of alternative routes. The Grand Trunk route is the only one joining the metropolitan cities of Secunderabad as well as Madras, with Delhi. This route in many places is single line. We have taken steps to put double line there to relieve it of congestion. Unfortunately on this main line are located Singareni collieries. It adds not only to the passenger carrying services, but becomes heavily over-crowded due to coal movement between various power houses. Similarly, after Itarsi there again coal has to be moved. This has been double lined to a great length. Still there are critical sections where doubling has to be completed early. At this stage, the question comes as to what should be the ultimate main plan for us to follow with regard to removing congestion especially between the North and the South. There has also been the specific feeling that South is not being attended to and is being neglected. To my mind we must complete the West Coast

line from Bombay to Mangalore and give a through connection so that the load from the Grand Trunk route is taken over completely. To start with from Mangalore to Delhi we can reach in 24 hours if the West Coast route comes up. Besides, there are certain areas in the Central India starting from the collieries where heavy coal movement is taking place over the Grand Trunk route. Besides, there are also some cement plants and thermal power stations. This route has to be decongested. It is in this context recently a plan has been approved and from our Western Coal fields a line has already been laid from a place called Pippalkoti.

There is conversion up to Parli, a distance of 370 kms. Further, there is a proposal in Maharashtra, for a thermal station at Kurduwadi. There is a second stage of decongestion on the Parli-Latur section. From Latur, there is a narrow gauge upto Miraj i.e., Latur-Kurduwadi-Miraj. This should be converted into broad-gauge. If it is done, this particular gauge will cut down the distance by 850 kms. for coal movement. If this east-west coastal line comes up, various industries can be set up in Marathwada and elsewhere. Thereby migration to Bombay can be avoided. This is the main congested route today.

Similarly, there is a small section which is heavily congested, between Katni and Jabalpur where we are moving heavy coal trains."

#### *Intra-city Transport*

73. To an enquiry of the Committee whether there was any road-rail transport plan for metropolitan cities of Calcutta, Madras and Bombay, the Planning Commission informed that in all the four metropolitan cities, Metropolitan Development Authorities have been constituted which are entrusted with the responsibility of achieving coordination between different modes of transport, mainly rail and road, as well as preparation of integrated plans. It has also been stated that concerned State Governments have already been advised to prepare integrated commuter transport plans for the cities like Bangalore, Nagpur and Patna.

74. As regards intra-city railway facilities, the Chairman, Railway Board informed the Committee as follows:—

"We are working on plans for Calcutta, Madras and Bombay, RRC has published a volume mainly about traffic in



metropolitan cities. Some smaller metropolitan cities like Bangalore, Nagpur and Patna are getting more and more congested. Bangalore has prepared some plan which is under scrutiny. About the other towns, I don't know whether they have done it. There can be a separate body for metropolitan cities, because there has to be an integrated transport, which should be separate from railways".

75. Asked about financing of such a body, the Chairman, Railway Board reacted by saying "It cannot be done under Railway Budget".

76. During their visit to Metro Railway Calcutta in July 1983, the Committee were informed that the agency for operation of Metro Railway was to be finalised. It has been stated in a note that for Metro Railway "the Central Government have appointed Ministry of Works and Housing as a nodal Ministry to coordinate. Meetings have been held by this Ministry with the Railway Ministry, State Government and the Planning Commission. Final decision is yet to be taken. For operation of the Metro Railway a new Act will have to be passed by Parliament". This Act has been drafted and is stated to be under the consideration of the Railway Ministry. In the meanwhile the construction organisation is preparing itself to organise and take charge of operation and maintenance of the Metro Railway which is stated to be imminent for the first section.

77. To an enquiry whether any agency for the operation of the Metro Railway has since been decided, the Ministry informed in a note as follows:

"The Government have decided that a statutory authority should be constituted for the operation and maintenance of Calcutta underground system. The authority would be under the Central control and function under the Ministry of Railways for the time being. In case other modes of transport are also to be taken up by the statutory authority the Government have further decided that the authority might be placed under the Ministry of Works and Housing.

In pursuance of the opinion expressed by the Solicitor General of India, the observation of the Cabinet while considering the Metro Railway (Construction of Works) Act, 1978 and the decision taken by the Committee of Secretaries, a separate and comprehensive legislation is required for the operation of Metro Railway. The draft legislation for the creation of Metro Rail Authority for the operation and

maintenance of Metro Railway is under consideration of the Ministry of Law. The exact constitution of the Statutory authority is still under consideration in conjunction with Law Ministry.

#### D. NEW LINES COMPLETED SINCE 1950-51

78. A list of new lines completed from 1950-51 giving year of start, year of completion, total cost and the broad purpose envisaged is given in Appendix II. The information pertaining to the on-going schemes of new lines at the beginning of the Sixth Plan and taken up during the Sixth Plan (upto 31-3-1984) together with the year of start, is given in Appendix III and IV.

79. It has been stated that no project on new lines or gauge conversion sanctioned by the Planning Commission has been abandoned after incurring some expenditure. Due to constraint of resources, however, some of the projects have been slowed down.

80. The Planning Commission informed the Committee in a note. The Working Group for the Sixth Plan constituted for the Railways indicated 29 on-going projects including three projects approved in 1980-81, the total cost of which was given in the Report of the Working Group at Rs. 402 crores. Of this, an amount of Rs. 162 crores had already been spent requiring a balance of Rs. 240 crores for completing these works. The provision for the Plan-Head "Construction of New Railway Lines" for the Sixth Plan was Rs. 380 crores and this included a provision of Rs. 240 crores for the completion of on-going works. However, due to increase in the cost of inputs, the amount required for completion of these projects has increased substantially.

81. The allocation for new lines/gauge conversion is reviewed from time to time and within the available resources, allocations are made for these projects, priority being given to lines which are linked with specific projects and those nearing completion. In this context, it would also be relevant to mention that, within the overall resources available for Railways, priority is given to replacement of assets, acquisition of rolling stock and developing and taking up line capacity works so that the Railways are equipped to carry the minimum traffic necessary for the development of the economy.

82. On an enquiry of the Committee as to how it would be possible for the Railways to continue the on-going projects during

the remaining years of the Sixth Plan in view of rising costs, the Planning Commission stated:

"In view of the costs of construction of new lines increasing substantially on the one hand and resources not increasing in the same proportion on the other, the completion of some of the on-going projects will be affected. As mentioned earlier, action has been taken to provide funds on priority to a few lines and not spread the resources thin over all the projects."

83. Asked if the Railways have approached Planning Commission for more funds, the Planning Commission stated:

"The Railways have asked the Planning Commission to increase their allocations from time to time. The Planning Commission has considered such requests and have also given additional allocations. For example, in 1982-83, an additional allocation of Rs. 190 crores was made in the current year i.e. 1983-84, an additional allocation of Rs. 160 crores has been made to the Ministry of Railways, over and above what was agreed to in the Annual Plans. These additional allocations have been primarily for the provision of additional rolling stock, track renewals and urgent line capacity works. In 1982-83, additional allocation was made for new lines. The additional allocations have been given primarily to meet the additional needs of traffic and urgent replacement requirements. The expenditure/outlay in the Annual Plans in the first 4 years of the VI Plan for the Railways account for nearly the total allocation made for the 5 year period 1980-85. As a consequence the total outlay for the year 1984-85 would be the additional outlay provided to the Railways in the Sixth Plan."

84. Planning Commission's own assessment with regard to adequacy of funds is as follows:—

"Projects are sanctioned on the basis of their costs as indicated by the Ministry of Railways and included in the Five Year Plan. In the event of a sharp escalation in the costs of projects, it becomes difficult to provide adequate funds for all the projects within the limited resources. The resources available have also to be used for other priority works of the Railways. These include acquisition of rolling stock, track renewals, electrification programme,

workshops and sheds etc., some of them more directly concerned with the main task of carrying the additional traffic. In such a situation, priorities warrant some changes which result in some of the projects which are considered not very important and could be deferred without serious detriment to the traffic needs, not getting adequate funds. The requirements of the on-going projects which were estimated to be only Rs. 240 crores at the beginning of the Sixth Plan are now assessed at about Rs. 525 crores for completion. In the first four years only Rs. 225 crores could be provided for new lines. In view of the overall constraint of resources and priority required for allocation to other Plan heads of Railways, it has not been possible to adequately provide allocations for new railway lines."

85. The Secretary, Planning Commission further informed the Committee during evidence that "of the 15 lines which we have indicated as likely to be commissioned, three, I understand, are likely to be partly commissioned. These are Bibinagar-Nadikude, Jangpura-Panswani and Afta-Roha lines. The other 12 are expected to be fully commissioned." He further explained:

"During the course of the plan we have been making allocation for this and there have been further escalations and the result is that even the figure we have set apart in the Plan.....will go up, but that amount will not be adequate to complete the projects. This probably is the major reason for all the 29 not being completed."

86. Asked if certain projects were slowed down at the instance of the Planning Commission, the Secretary, Planning Commission replied "The Planning Commission does not give any instruction to slow down the projects". The representative of the Planning Commission further clarified as follows:

"We have indicated priority. In case of new railway lines, those that are nearing completion should be given the priority, so that these lines are at least completed and are brought into use. There are project-oriented lines. If there is a project link with the particular line and if the project is coming up, the priority is given so that that project does not suffer."

87. It has been admitted that there have been cases of cost and time overruns. Cost overruns have been due to an escalation in costs of inputs. The overall resources not increasing in harmony with the escalation in costs has also resulted in less allocations to the projects currently in progress. This has also been due to priority being given to other important Plan Heads of the Railways like acquisition of rolling stock, replacement and renewals of over-aged assets. As a consequence of both the shortage of resources as well as the increase in costs of inputs, there have been cost and time overruns. Time overruns are also caused due to factors like delay in acquisition of land, problems of terrain not visualised earlier in the survey and other factors like delay due to contractors or non-availability of materials.

88. Of the 58 new Railway lines (longer than 20 kms.) constructed since 1950 (mentioned in Appendix I) following lines have taken about 10 years or more. It is not clear as to what extent has there been cost escalation on account of the delay in execution:—

*Revised*

(Rs. in crores)

1. Hindumalkot- Sriganaganagar . . . . .	BG 27.26 Kms.	1.17
2. Singrauli- Obra . . . . .	BG 56.57 kms.	11.41
3. Singrauli-Katni . . . . .	BG 246.26 kms.	19.92
4. Panskura- Haldia Port . . . . .	BG 69.61 kms.	12.33
5. Guna- Maksi . . . . .	BG 193.21 kms.	10.86
6. Trivandrum- Nagarcoil-Thirunelveli (including Nagapattinam-Kanyakumari)	BG 160. kms. 14.54	38.59
7. Vasai Road- Diva . . . . .	BG 41.96 kms. 12.74	29.50

In reply to a question the Ministry of Railways have informed in a note that the increase in cost specifically due to escalation in rates due to time over run is not separately available.

89. Similarly from the details of 29 on-going projects on new lines at the start of the Sixth Plan (mentioned in Appendix III), it is seen that the Mangalore-Hassan line (109.21 kms. cost Rs. 51.36 crores) took more than seventeen years for completion.

90. On an enquiry of the Committee regarding details of top ten cases of Railway projects costing over Rs. 20 crores each which suffered more than 100 per cent cost and time over run together with reasons therefor as well as remedial steps taken as a result of the review made by the Planning Commission, the Planning Commission has submitted the following note:—

"The required information was sought from the Ministry of Railways. They have indicated that "as details of ten cases of Railway Projects on Track Expansion, each costing over Rs. 20 crores and having suffered more than 100 per cent cost and time over-runs are not available having a time span of last 10 years projects originally costing more than Rs. 10 crores which suffered about 100 per cent cost/time over-run have been indentified." Details of the schemes as supplied by the Ministry of Railways are given in Appendix V both in respect of new lines and gauge conversions.

It may be observed that generally the reasons are constraint of resources resulting in inadequate allocation of funds to different schemes, cost escalations, shortage of materials etc. In this connection, as has already been stressed elsewhere, it is stated that in a situation where full requirements of various schemes have to face the situation of constraint of resources, it is inevitable that priority funding has necessarily to be attempted keeping in view considerations like project oriented lines etc. In addition, it may be stated that when a project report gets prepared by the Survey team of a Zonal Railway, the cost estimates are with reference to a base period. When the project gets approved, escalations take place due to time lag between the survey and sanctions. Again costs estimated during survey are firmed up after a detailed engineering survey. Further during the course of execution, the executing authorities also face shortage of materials and escalation in costs of inputs. These account for cost and time over-runs.

As the execution of projects is reviewed systematically by the Ministry of Railways and the Zonal Railways undertaking the execution of the project, no specific details assessment is made by the Planning Commission. However, by getting information from Ministry of Railways on important projects having inter-sectoral linkages and including it in the Planning Commission's Quarterly Status Report, the slippages and remedial action required are identified. Separately a Quarterly Report is also sent to the Cabinet highlighting achievements and slippages. In addition, it is stated that during Annual Plan meetings the requirements of outlays for the projects are discussed and worked

out in consultation with the Ministry of Railways. These meetings and the Quarterly Review Meetings serve the broad purpose of review for remedial action in respect of progressing railway projects."

91. Asked as to what concrete measures have been taken to avoid cost and time overruns, the Ministry of Railways furnished the following note:

"Due to severe constraints of resources it has not been possible to allocate sufficient funds to the different on-going projects, resulting not only in time overrun but also cost overruns, due to almost continuous escalation in cost of labour and material. A few projects such as project oriented lines, strategic lines and the lines in the North East Region have been identified, in consultation with the Planning Commission to be accorded high priority, so as to keep the time and cost overrun to the minimum in at least those few cases. The real solution however, lies in substantially increasing the allocation for new lines, so that they are completed in the minimum possible time, as stipulated in the project report."

92. On being asked whether it was not necessary to have some mechanism of assessing the cost|time overruns, the Secretary, Planning Commission agreed by saying:

"Yes. The first should be the Railways themselves. They must have the periodic reviews which would enable them to go into what is going wrong and what should be done. At the level of the Planning Commission there are quarterly and annual reviews in which we try to analyse and help to the extent we can. Constant monitoring and concentration on on-going projects with a view to finishing quickly—these are the two things which I would stress."

93. It has been stated in a non-official memorandum that because of pressures, a large number of new lines are adopted with token provision made for them and some work is done on each of these lines to show that they are alive, but because of limited funds that are made available, all the projects drag on, resulting in escalation of costs. Asked to comment on this observation, the Secretary, Planning Commission stated:—

"They (Proposals) do come from various sources and all these are taken into account. We go into the merits of the proposals as they come to us. Now it is true that over a period of time you do have an accumulation of projects and particularly, when we pass through a period of scarcity of resources, as it happens from time to time, it is not always possible, to set up an amount of money that will be automatically required. If that happens, we indicate to the Railways that the amount likely to be available is such and such and they should decide on the priorities and tell us about it generally speaking they try to concentrate on on-going projects and long-term schemes."

94. On being asked whether it would not be more desirable that initially only a few projects should be taken up and concerted efforts made to complete them in time and funds permitting other projects may be taken up for execution thereafter, the Secretary, Planning Commission deposed as follows:—

"I cannot agree more on this. It is absolutely correct. We agree that this should be the policy of the Committee. We cannot agree more with this. I would say that we should not take up schemes without regard to the likely availability of funds in that year and in the coming year and it is a good policy to take a little more than what we can do. But subject to that, we must concentrate on finishing the ongoing schemes quickly because the effect of spreading the resources thin over a large number of projects is that the projects can become long-drawn and the costs may go up. Therefore, this is something with which we, in the Planning Commission, whole-heartedly agree."

I would only say that the number of projects to be taken up should bear a reasonable relationship to the likely availability of resources and concentration should be on finishing on-going projects and maximisation of resources in favour of on-going projects."

95. During evidence of the representatives of the Ministry of Railways (Railway Board), the Committee enquired the reasons for cost-over run and time over-run. The Member (Engineering) replied as follows:—



"It is a vicious circle. When escalations are there, we do not have adequate money and then there is time overrun. Upto almost 1965-66, the price escalation was not much and the time overrun was also not much. We had completed the projects in three years. But later, it is a trend particularly after the Third Plan, the money provided is not adequate and escalations are also taking place simultaneously."

96. On another enquiry as to why the Railways could not spend the money on one project, complete it and then go to another project, the Member (Engineering) reacted:

"A very desirable objective, we would like to do. But public aspirations are there. Suppose I start a project in Kerala and complete it in two years time. People living in other parts, say, Bihar will say that work is going on in Kerala but not in Bihar. It is a genuine public aspiration."

97. During discussion the Committee desired to know whether the Plan funds under the Rural Employment Schemes could be utilised for the earth work for railway track expansion. The Planning Commission submitted the following note subsequently:—

"In the past some of the State Governments used to offer free land and contribute towards part of the earth work construction in respect of projects on construction of new railway lines under the 'Food For Work Programme' in force earlier. The Ministry of Railways used to accept such offers in respect of projects which were otherwise approved by the Planning Commission:

During the Sixth Five Year Plan two important Centrally Sponsored Schemes for generation of rural employment are under implementation in place of the earlier schemes. These are:

- (1) National Rural Employment Programme and
- (2) Rural Landless Employment Guarantee Programme.

Under these two schemes funds are made available to the State Governments on the basis of a formula relating to existence of poverty and populaion of agricultural labourers and marginal farmers with the two-fold intention of creating additional employment opportunities based on

the above criteria in different aspects of each State, and in the process, create local community assets which are generally not covered in normal Plan schemes. The works that generally are taken up under such programmes include minor irrigation, soil conservation and land development, nalla training, anti-water logging, drains and distributing canals, fields channels, trenches, afforestation etc. As schemes on construction of railway lines are covered under the normal Plan schemes of the Ministry of Railways, these do not fit into the two schemes indicated above.

Nevertheless if the State Governments are keen and offer such a contribution (earth work for Railway lines) under their Plan or non-Plan schemes, it could be considered by the Ministry of Railways. However, as has been made clear during oral evidence, the appraisal of the projects can not take into consideration such offers and the schemes will have to be examined on merit without giving any weightage to offer of such contributions by the State Governments."

98. A suggestion was brought to the notice of the Committee that the lines which do not give adequate financial return should be closely examined by the economic unit of the Ministry of Railways to evaluate the alternative of moving the traffic by other modes to assess the overall cost and benefit to the economy. Asked to give comments on the proposal, the Financial Commissioner stated:

"This suggestion is not formally brought to our notice. The Economic Adviser examines the projects. Then only it will go to Planning Commission. One can say, it should be done on social cost benefit analysis basis. It was applied to certain lines in the N.E. region of the country. But when a thing is not financially justified, it will only add to the Railway budget's burden. There must be some mechanism to compensate railway for the loss, if any. The losses are more than the dividend payable. There should be a mechanism to compensate the Railway for projects taken up on social cost benefit analysis basis; it is for development of the country; it is for the improvement of the economy. But till they become really viable, somebody should pay us money. There are some

strategic lines. Operational losses are deducted from dividend payable. There is a regular system of project appraisal. Refinements are made from time to time depending upon the needs as we have already mentioned.

In previous years, the conventional system was there; then in 1969 we set up a Committee which consisted of three directors. They went into the system and they suggested some improved methods. In many cases, there are detailed procedures—they start from the grass-root level. All these things are being discussed at the Zonal level. These various details are gone into. Projects are there like workshops, repair-sheds, electrification and so on. Many of such things would be needing clearance from the side of the Planning Commission also."

### E. GAUGE CONVERSION AND DOUBLINGS OF LINES

99. Of the three gauges on the Indian Railways, broad gauge is the most predominant as would be seen from the table below:

Route Kms. (as on 31-3-1983)

Gauge	Total	Single line		Total	Double/Multiple lines		
		Electrified	Other		Electrified	Other	Total
Broad(1.676m.)	32,625	1,121	18691	19812	4529	8284	12813
Metre(1.000m.)	24,514	137	23971	24108	29	377	406
Narrow (0.762m.) & 0.610m.)	4,246	..	4246	4246	..	..	..
Total	61,385	1,258	46908	48166	4558	8661	13219

100. Although broad gauge forms only 53.2 per cent of the total route kilometres, it accounts for 88 per cent of the freight tonne kms. and about 79.7 per cent of the passenger kms. Metre gauge covering 39.9 per cent of the total route kms. carries only 11.9 per cent of freight tonne kms. and 19.6 per cent of passenger kms. Narrow gauge comprising 6.9 per cent of the total net work accounts for the residual 0.1 per cent of the freight tonne kms. and 0.7 per cent of passenger kms. It would be seen from paragraph 27 that gauge conversion totalled 2203 kms. since the commencement of Plan upto 1982-83 and doubling lines done totalled 8849 kms. during this period.

101. A list of gauge conversion schemes completed from 1950-51, showing year of commencement, year of completion, total cost and the broad purpose is given in Appendix VI. Similar information pertaining to on-going schemes of gauge conversions at the beginning of the Sixth Plan together with the year of start is given in Appendix VII.

102. The need for doubling of lines are worked out by the Railways on the basis of increased requirements of sectoral capacities on individual routes. This assessment is done by the Railways and proposals for individual doubling schemes do not require the clearance of the Planning Commission. Investment for doublings is considered under the broad plan head of "Traffic Facilities (Line work Capacity)". The allocation of funds under this head is provided within the total outlay keeping in view the needs for expansion of traffic facilities and the overall demands for the plan heads and the availability of resources. However, there is a separate sub-head of account for 'Gauge conversion' and 'doubling' respectively against which budget provision is made by the Railways every year under the relevant Demand for Grant. Thus it appears to have been left solely to the direction of Railways to distribute the plan funds to 'doubling' and 'gauge conversion'. To an enquiry of the Committee regarding the principles on which this discretion was exercised, the Ministry of Railways informed in a note as follows:

"There is no set criteria to select gauge conversion schemes and some such schemes are taken up on considerations other than economic or operational. The gauge conversions, which are taken up on other than operational considerations do not necessarily add to the capacity of the system, and some of them are not even economically viable. All proposals for gauge conversions are formulated by the Ministry of Railways on the basis of detailed Engineering-cum-traffic survey. All proposals for gauge conversion schemes also now require clearance from the Planning Commission.

On the contrary, doubling projects are always taken with a view to augment capacity on saturated/congested sections, to meet the anticipated increase in the level of traffic. It is, therefore, desirable to give priority to doubling projects."

103. Projects on gauge conversion are considered by the Railways, mainly on the basis of traffic needs, especially in the context of transshipment bottlenecks and submitted to the Planning Commission for clearance. The Planning Commission have informed the Committee in this regard in a note as follows:

"Earlier, there was a long-term objective of providing a uni-gauge system on the Indian Railways. Lately, however, in view of the very large investment that would be necessary to convert all the narrow gauge and metre gauge lines into broad gauge, the Railways have now considered providing investments in improving the throughput of metre-gauge sections by upgrading the track and rolling stock for meeting additional capacity requirements. This would reduce the overall need for conversion from metre gauge to broad gauge. The need for retaining a metre gauge net work for a long-time to come has also been commented on by the National Transport Policy Committee who in their Report have stated that it may be desirable to improve the carrying capacity on metre gauge through better rolling stock and improved axle loads and other technological inputs. The Planning Commission considers the proposals for gauge conversion schemes as recommended by the Working Group on the formulation of the Five Year Plan, the individual schemes discussed during annual plans with the Railways and projects with either problems of capacity, transshipment or operational reasons."

104. During evidence, the Chairman, Railway Board opined about gauge conversion as follows:

"Our country is not very rich to afford conversions. Conversion today costs us nearly Rs. 25 lakhs from one gauge to the other. New lines cost us Rs. 28 to 30 lakhs. It is better that we follow a different alignment, most advantageous alignment, and open new ones.

This is the case also for doubling. we come back with a view that it is a new line.

But relative economic have forced us to see that whether it is better to spend money for new one or conversions. Conversion of a line to a new line, perhaps earlier advantages were not so heavily weighted in favour of new lines... The decision was taken at a time when there were far too many bottlenecks with regard to transshipment. The first stage is where conversion has taken place so far to the heavy density routes on metre-gauge which ended in broad-gauge points for transshipment. That phase is over now. We have to think many-times to effect conversions now. The question has come should we convert in the North Eastern side from Katihar to Siliguri? When

I was in the area, I noticed the strategic demand of the military also. Therefore, if metre gauge is also converted, in case of emergency, there will be no alternative route. Instead of converting it, we can do one thing, which many countries, practically the whole of East Asia, whole of Vietnam and part of China, Thailand, Burma, Malaysia, etc. have got only smaller gauges. With a view to meet the running of the metre gauge 100 kms. per hour, we have improved the track in many parts of the country. Passenger movement does not make any difference. It is only in freight traffic."

He also stated:

"We have practically converted where the heavy density of freight is there so that there is no transshipment involved."

105. On an enquiry of the Committee, whether wheel-changing of train would be economical than conversion, the Chairman, Railway Board reacted by saying:

"Wheel changing is there only in certain limited places like Spain. We used to have such arrangements, in Mysore for the Maharajas' carriage. But we cannot make use of full utilisation of the moving diversions. The question is how much load it would take in case of changing over the vehicle from broad gauge to meter gauge. If it is a question of mere 2" or 3", it is perhaps easier. But if it is more, the body size is much larger, then the difference between the two will be very great. This is the problem.

The metre-gauge unit wagon will take a maximum payload of about 18 tonnes. Where as broad-gauge will take at least 24 to 28 tonnes. New wagons will go higher than 28 tonnes. In that way, we lose advantage by the wheel changing. However, we are trying to see whether the international container or other containers can be used in transshipment. Containers are to be put in the metre gauge or broad gauge. We want to take the international containers right to the other end of the metre gauge also."

106. The Committee were informed that the maximum speed in metre-gauge was 100 kms. per hour. The Vaigai Express, which runs on metre gauge, goes at 100 kms. per hour and in other areas it is only 50 to 75 kms. per hour.

## F. TRACK RENEWAL

107. The Railway Reforms Committee in their Report presented to the Ministry of Railways have cautioned that 20 per cent of the existing track in the country will become sick if immediate steps are not taken to boost the track renewal programme. They have suggested that in the remaining three years of the Plan beginning with 1982-83, a total outlay of the order of Rs 2,000 crores should be earmarked for track renewal, carriages and wagons replacement plan. .... It is further stated that by the end of the Sixth Plan at least 26,000 kms. of track will require renewal even if 8,000 kms. are renewed in 1982. Some 13,580 kms. of primary track and 7460 km. of secondary track will need immediate attention. The slow pace of track renewal is also reported to have led to the speed constraint affecting the productivity of the system.

108. It has been stated by the Railways that on important routes, track is being strengthened and modernised to enable it to meet the increasing demands of both passengers and freight traffic. The track modernisation programme consists of provision of better and stronger track structure and adoption of improved methods of maintenance of track with a view to minimising both maintenance and operational costs and at the same time making rail travel safer and more comfortable even at high speeds contemplated for the future.

109. The arrears in track renewals which was 13100 kms. at the beginning of the Sixth Plan in April 1980 had gone upto 16840 km. at the end of March 1982. According to the Report of the Comptroller and Auditor General of India for the year 1981-82—Union Government Railways following is the expenditure under Plan head "Track" during the last three years of the Sixth Five Years Plan:

1980-85	1980-81 (Actuals)	1981-82 (Actuals)	1982-83 (Estimated)	Balance Provision for the remaining period 1983-85 (Approx.)
(Rs. in crores)				
500	199.30	172.09	160.53	58.00

110. The physical targets set in the Sixth Plan and actual achievement there against during the first two years, according to

the Audit Report (mentioned above), are as under:

	Physical targets (1980-85)	1980-81	1981-82	Extent of arrears of renewal of track
<b>Track renewals (kms.)</b>				
(a) Primary	6000	880	1270	10300
(b) Secondary	2000	216	293	6540
	8000	1096	1563	16840

111. During the year 1982-83, 1267 kms. of track were relaid with new rails and 1710 kms. with new sleepers. On broad gauge 60 kg. and 52 kg. per metre rails and on important metre gauge routes 44.64/37.20 kg. per metre rails are being used on high speed and/or heavy density routes.

112. The Committee enquired from the Secretary Planning Commission whether the quantum of funds made available for track renewal programme was adequate. A representative of the Planning Commission replied as follows:

"In the area of track renewal there will be backlog and this backlog is proposed to be cleared in a phased manner so that it is lifted and clearance is done in such a way that it is fully taken care of and the backlog is cleared in phased programme in five to ten years. Railways have asked for additional outlay for additional track renewal. Addition allocations were made for track renewal."

113. On the Committee pointing out that the physical achievement in this respect fell short of the target, the representatives stated:

"Yes. This amount comes from the Depreciation Reserve Fund. We concede that the original programme that was visualised in the beginning of the Sixth Plan may not materialise. The effort is made to take it up as an important programme."



114. When this issue was posed to the Secretary, (Expenditure) Ministry of Finance, he reacted by saying:

"They (Railways) should be given, out of the total allocation, a high priority when they come up to the Planning Commission with demand for fund. I realise that they have to meet certain targets of movement of traffic. Therefore, they have to spend on other things also. The only answer is that more fund will have to be made available to ensure that target renewal programmes are taken up. All I can say is that in the Finance Ministry we recognise them as very essential for the railways and they are core of the infrastructure; and that maximum possible help has to be given to them. They can also help themselves by ensuring that the surpluses that they expect are realised."

115. In reply to SQ 346 dated 21-3-1984, the Minister of Railways informed Rajya Sabha that "based on allocation of funds, 8409 kms. of track have been sanctioned for replacement with new rails on 1-4-1983 and a further 11,600 kms. of track is being also progressively planned for renewals." To a supplementary question arising out of the above reply, he further stated:

"The position of track renewals is as follows: The total track for the Sixth Five Year Plan was 14,000 kms. The total renewal for the first four years, that is, 1980-84, is 6636 kms. For 1984-85, our target is 2,500 kms. .... The arrears of track renewals at the end of the Plan, will be approximately 20,000 kms. The Railway Reforms Committee recommended that arrears of track renewals should be liquidated in the next ten years and have recommended a target of 4,800 kms. track renewal every year. In the Seventh Five Year Plan, a sum of Rs. 2,600 crores has been estimated to be required for track renewals."

#### G. DIVERSION OF FUNDS

116. Grant No. 16—Railways relate to "Assets—Acquisition Construction and Replacement". Particulars of works are given in "Works, Machinery and Rolling Stock Programmes of Railways Part II (Detailed Programme)"—popularly known as 'Pink book'.

117. A statement taken out from the Pink-book for the year 1983-84 and 1984-85 showing latest anticipated cost, outlay expected

to the end of 1982-83 and 1983-84, proposed outlay during 1983-84 and 1984-85 in respect of one project each in the nine zonal railways is given at Appendix VIII.

118. The Appropriation Accounts of Railways in India for a particular year shows actual expenditure under major head and sub-head (and not under individual items of works) as is shown in Grant. It is, therefore, not possible to know from the published documents the actual amount spent on a particular new line or gauge conversion project during a year as against the grant sanctioned by Parliament.

119. To an enquiry of the Committee as to how it was ensured that there is no diversion of funds by Railways, the Planning Commission have replied:—

“The Ministry of Railways make out detailed proposals for allocations required under different Plan heads before the Annual Plan discussions. The Planning Commission allocates funds under each broad Plan head which is arrived at after detailed discussions at the time of Annual Plan with the Ministry of Railways, taking into account the priorities of the acquisition of rolling stock, workshops & sheds, track renewals, electrification, new lines, line capacity works etc. within the Plan heads, the priorities for individual works are also discussed to enable projects which are more important to be provided with adequate funds for early completion for meeting the needs of traffic. Funds are not normally diverted from one Plan Head to the other.”

120. During evidence the Committee enquired from the Secretary, Planning Commission whether the Commission had anything to do with the diversion of funds of a particular project to another project by the Ministry of Railways. The representative of the Planning Commission stated as follows:

“So far as the allocations are concerned for the different plan heads, it is ensured that the money is given for a plan head and it is spent under that head. Within the allocation in the plan head, money is allocated in the beginning of the year itself. It is discussed with the Planning Commission as to how much money they propose to provide for each of the projects. Normally no change is made between one project and the other. However, dur-

ing the course of the year, should there be a need because of certain circumstances, that a particular project is not able to pick up but another project is picking up fast, the railways can make such a change and advise the Planning Commission.....Such a thing normally does not happen. It all depends on resources that are made for a particular line. That fund is not altered to be given to another project."

## H. PROPOSALS FROM STATE GOVERNMENTS

121. The route-wise rail length in different States and Union Territories of the country as on 31-3-1980 and the kms. of new lines constructed in each State from the First Plan up to 1979-80 are given below:

State	Route Kms. as on 31-3-1980	Kms. of new lines constructed from First Plan to 1979-80
1	2	3
Andhra Pradesh . . . . .	4709	149
Assam . . . . .	2194	461
Bihar . . . . .	5312	680
Gujarat . . . . .	5671	786
Haryana . . . . .	1450	75
Himachal Pradesh . . . . .	256	81
Jammu & Kashmir . . . . .	77	83
Karnataka . . . . .	3013	375
Kerala . . . . .	916	281
Madhya Pradesh . . . . .	5739	1063
Maharashtra . . . . .	5234	384
Nagaland . . . . .	9	9
Orissa . . . . .	1948	626
Punjab . . . . .	2139	89
Rajasthan . . . . .	5614	389
Tamil Nadu . . . . .	3822	449
Tripura . . . . .	12	15

1	2	3
Uttar Pradesh . . . . .	8811	747
West Bengal . . . . .	3722	581
<i>Union Territories</i>		
Chandigarh . . . . .	11	6
Delhi . . . . .	168	57
Goa, Daman and Diu . . . . .	79	23
Pondicherry . . . . .	27	Nil

122. On an enquiry, the Planning Commission informed the Committee in a note that:

"The requests received from the different States and Union Territories and others for additional new lines from time to time are considered by the Ministry of Railways and Planning Commission at the time of Plan formulation. However, no separate details are available."

123. During the course of examination of this subject, the Committee invited suggestion from the State Governments about construction of new lines, gauge conversions etc. in their respective States and also obtained comments of the Ministry of Railways (Railway Board) thereon. A summary of the proposals and comments are reproduced in Appendix IX.

#### I. UNECONOMIC BRANCH LINES

124. According to the recommendations of uneconomic Branch Lines Committee (1969) all narrow gauge lines and such of the Broad gauge and Metre Gauge lines joining the main system at one end only are reckoned as branch lines. Those Branch lines whose net earnings are not sufficient to meet the prescribed dividend liability on the capital invested on the branch line, are treated as unremunerative and hence uneconomic.

125. According to the Corporate Plan (1976), the systematic changes in geographic location of industry and markets and development of roads have caused traffic to dwindle on many railway lines. Volume of traffic over a number of lines has diminished to a point where these lines can no longer provide efficient and economic service. Although the main reason for the lines being unremunerative is low density of traffic, in some cases losses are also attributable to a high level of working expenses, out of proportion to the traffic handled.

126. According to the Ministry of Railways (Railway Board) the main reason for losses on uneconomic branch lines is that most of

the lines have low density of traffic. The Narrow Gauge lines in particular have the disadvantage of break of gauge transshipment, short lead and severe competition from road traffic. The Railway have been making all out efforts to make the uneconomic branch lines economically viable. Important measures taken in this regard by the Railways are as under:

- (1) Development of additional traffic by persuading the State Governments to provide feeder roads to stations, curtailments of paralld road services during the time of train services etc.
- (2) Adjustment of time-table wherever feasible to suit public convenience.
- (3) Checks to curb ticketless travel.
- (4) Cancellation of trains which are poorly patronised trains.
- (5) Replacement of passenger and good train by mixed trains.
- (6) Closure of unremunerative stations/halts or their conversion into contractor-operated train halts.
- (7) Introduction of 'one engine only' system.
- (8) Running of trains during day light only.
- (9) Close watch on loading, unloading and transit of wagons.
- (10) Economy in staff, fuel and maintenance consistent with operational and statutory needs.
- (11) Closure of stations for goods traffic, in wagon-loads or 'smalls' or both, as warranted by poor patronage.
- (12) Non-restoration of trains which were cancelled due to coal shortage, on those uneconomic lines where patronage was poor.

127. The Report of the Comptroller and Auditor General of India for the year 1981-82, Union Government (Railways) brings out the following facts about operating losses due to retention of Unremunerative Branch Lines. Keeping in view the financial burden arising out of operating losses on these branch lines, the RCC 1971 approved grant of subsidy to the Railway by way of non-payment of dividend on their capital cost from 1971-72. (This relief was granted in the shape of subsidy from 1979-80 onwards). The operating losses on these lines were Rs. 20 crores in 1973-74 but this had increased to Rs. 31.56 crores in 1980-81. A major factor contributing to these losses was the slow or negative growth of passenger as well as goods traffic on these short lead MG/NG sections, in the wake of improved

road transport services. Commenting on the recurring operating losses sustained by the Railway, the Public Accounts Committee in their 22nd Report (1966-67—4th Lok Sabha) had observed that “the sound principle of providing transport at the lowest cost and to maximum advantage of the economy should outweigh all other considerations in deciding upon the retention of unremunerative lines and that in view of the growing difficult financial position of the Railways, it was desirable that an early decision should be taken about the operation of these lines on which the railways have been persistently losing heavily.

128. The Railway Convention Committee (1973) had called for a review to identify the lines which should be closed keeping in view the availability of alternative modes of transport in the concerned sections. Review carried out by the Railway Board in consultation with the Zonal Railways in 1976-77 disclosed that in the area served by 23 uneconomic branch lines on the Eastern, Northern, North Eastern, Northeast Frontier, Southern, South Central, South Eastern and Western Railways, satisfactory alternative modes of transport exist and that the closure of these lines would not adversely affect public interest. The Ministry of Railways (Railway Board) thereupon had approached (June 1978) the concerned State Governments to agree either for the closure of these lines or for the reimbursement of the losses sustained by the Railways in operating these lines. None of the State Governments had agreed to the proposals of the Ministry of Railways (Railway Board) so far. Meanwhile both the Railway Tariff Enquiry Committee (RTEC) and National Transport Policy Committee (NTPC) constituted by the Ministry of Railways (Railway Board) and the Planning Commission respectively has, *inter alia*, unanimously recommended in their reports (1980) for closure of these lines, specially the narrow gauge lines, on the consideration that these sections serve only short lead traffic which could be catered more economically by Road Transport than by Rail.

129. Of the 23 lines which the Railways have recommended for closure due to better availability of alternative road transport service the maximum number is on North Eastern Railway (6), followed by Western (4), Southern (4), South Eastern (3), Northern (3), Eastern (1), South Central (1) and Northeast Frontier Railway (1). The losses sustained by the above railways on these 23 lines alone were Rs. 179 lakhs in 1980-81. Only one of the Railways—Western Railway—had gradually withdrawn the train services in their unremunerative branch lines, reducing thereby, its operating losses from Rs. 30 lakhs to Rs. 6.59 lakhs between 1978-79 and 1980-81.

130. Awaiting concurrence from the State Government, the Ministry of Railways (Railway Board) have not taken decision to close down any of these 23 lines even on a selective basis so far (November 1982).

131. During his oral evidence, the Finance Commissioner informed the Committee that:

"The number of uneconomic lines will vary from year to year. One line may be unremunerative this year, and remunerative next year. For 1979-80 and 1980-81, as we have published in the Budget Documents, the figures are 131, 132 and 136 respectively. The loss on these lines was for 1978-79 Rs. 27 crores, 1979-80 Rs. 27 crores and 1980-81 Rs. 32 crores.

As this Committee had recommended earlier these uneconomic Branch lines are reviewed every year on marginal costing system and the losses assessed on that basis. So these will vary from year to year. If the lines start making profits, the number of lines will come down. There may be other lines which were earlier making surplus but which become unremunerative subsequently."

132. When asked as to how it was calculated that a particular line was making profit, the witness said:

"There is a specific method. Whatever is directly apportionable to the particular line is taken into account. There is a detailed formula, issued in consultation with Audit. There was an Uneconomic Branch Lines Enquiry Committee—Mr. Mohanlal Chaturvedi headed that Committee, which gave a formula. As far as the definition is concerned, whatever line is connected to one end of the main line, is a branch line. If it is connected on both the sides, it is main line. All narrow gauge lines are uneconomic.

133. Asked whether there was any inbuilt system to concurrently monitor and appraise the financial returns on operations on each of the railway lines, the witness informed:

"This is subjected to annual review. It is only on the basis of annual review that losses are computed and the lines are excluded from the calculation of dividend."

134. On an enquiry as to how a record was kept for each line separately, he went on to say:

"There are two categories. 132 lines are in one group. There was another group, which was constructed from 1-4-1950 onwards. This Committee recommended that in those cases an annual review should be made and dividend paid on lines becoming remunerative. On other line dividend is not paid—132 lines."

135. Asked as to what is done after a line is declared unremunerative, the witness explained:

"We try to reduce the cost. Some of these lines have been converted into one engine system only. Those steps are taken. But then it is not within our power to close down those lines. It is a question of Government permitting it. So far as reducing the expenditure on that line is concerned, we cannot do much. We get exemption from dividend liability."

136. The Committee also discussed the issue of uneconomic lines with the representatives of the Planning Commission on 11-11-1983. While expressing views of the Planning Commission in respect of uneconomic line, which even the State Governments were not willing to close, the representatives of Planning Commission stated:

"Number of Committees have suggested closing down of uneconomic lines. National Transport Policy Committee examined this and made a suggestion about these uneconomic lines which cannot be run economically even with good operations. Their structure is such that they cannot be economic. When there are parallel road services and traffic can be carried by buses, where density of rail traffic is not high, where it can't be connected to major network, in all these cases, they suggested that uneconomic lines could be closed down. In Madhya Pradesh one line was closed. This is a continuous effort. It is not only in this country but other foreign countries also that such problems are faced and Dr. Beaching was appointed by the British Government, to look into the re-shaping of British Railways. Number of other countries have also closed uneconomic lines to make for operational viability of their railway systems. In the 19th Century the Railways were the only mechanised mode of surface transport; now things have changed and these are alternative modes of



transport. Uneconomic lines were closed down also in countries like Germany, France, USA and Canada. If no demand is there, there is a strong case for closing such a line but each case should be seen individually, line by line."

137. The Committee pointed out that the Railways themselves were responsible for such of the lines becoming uneconomic for reasons like speed retardation, bad track, etc. When enquired as to what help the Planning Commission would give in the matter of replacement of bad track, the witness replied:

"I do agree with you... I would say, every line needs to be examined to assess its real potential and to go into the causes which make them uneconomic. If speed is a factor, if bad track is a factor, this can be improved, to make them economic. But if the potential is not very high, even after all these efforts, and the traffic cannot grow, there is a good case for closing the lines."

"The operation alone is not something which the Planning Commission examines closely. I totally agree that one can examine and see whether it can survive, with increased improvements and efficiency. As I told you in narrow gauge the cost of operation is very high, fuel cost is high. Capital cost, staff cost, all these are high.

The Secretary, Planning Commission also added:

"All aspects are examined thoroughly relating to it and then only decision taken on closure. That is the policy which has been accepted and we have also conveyed this view to the Ministry of Railways."

138. To a suggestion of the Committee whether increase in speed of a train would improve the viability of the track, the representative of the Planning Commission then reacted:

"I would not like to make a general statement, because things would vary from line to line. Electrification of low density lines can be a very uneconomic proposition, because of the high investment. There are possibilities of increasing speed, which means increased cost also, and increased cost will mean increased tariff. Increased tariffs would mean that we would be driving more and more people to the buses. Earlier, the railways were carrying 70-80 per cent of the

passengers, today it is 40 per cent and 60 per cent between railways and road transport, and that is how it, should be. Whereas the train can carry, may 500, persons at a particular time, ten buses can take the same number of passengers at certain intervals. For passengers travel, for the economy of the country and for the overall development, there is a strong cases for the buses to develop, particularly for traffic which is moving short distances."

## PART II

### CONCLUSIONS|RECOMMENDATIONS OF THE COMMITTEE

The Indian Railway system is the principal mode of transport in the country and the world's second largest system, under one management. It constitutes the life-line for most long distance movements and forms the basic infrastructure for the development of the economy. As on 31-3-1951, the total railway route kilometerage was 53,596. During the last 32 years, 7789 kilometerage has been added, thus taking the route kilometerage to 61,385 as on 31-3-1983. The Committee, however, observe that the track expansion, which was fairly fast upto 1968-69, slowed down considerably thereafter. Thus, as against the addition of nearly 6,000 kilometerage during the 18-year period (1950-51 to 1968-69) the addition in the 14-year period thereafter (1969-70 to 1982-83) is less than 2,000. The average addition per year during the period 1969-70 to 1982-83 works out to 102 kilometres as against 331 kilometres during the period 1950-51 to 1968-69.

2. An analysis of the Plan allocations for Railways shows that while these allocations at current prices have been going up from Plan to Plan (having gone up from Rs. 400 crores for the First Plan to Rs. 5100 crores for the Sixth Plan), the share of Railways in the total public sector outlay has been sharply going down since the Third Plan. As the Committee observe, the share of outlay on Railway (including DRF) in the total public sector outlay was 21.6 per cent in the First Plan and 22.3 per cent in the Second Plan; thereafter it has been continuously going down, having reached a mere 5.23 per cent in the Sixth Plan. Although the allocation of Rs. 5100 crores for the Sixth Plan appears to be fairly impressive, it would not be so, if reckoned in terms of constant prices and the requirements of Railways.

3. According to a note furnished by the Planning Commission, the criteria adopted for investment in the Railways take into account the projected transport demand and the need to create adequate capacity, both line capacity and rolling stock, to meet the projected levels of traffic of freight and passenger transport for a given plan period. It also takes into account the requirements of rehabilitation and replacement of ageing assets as well as invest-

ments required for modernisation, upgradation of technology, cost reducing investments like electrification, investments for achieving self-reliance in the production of major equipment required for Railways and for expansion of the network to meet the developmental needs. However, the picture of the Railway assets dealt with in this Report, viz, track, that emerges in the last year of the Sixth Five Year Plan is as follows. Against a moderate growth of 13 per cent in route kilometrage and 26 per cent in track kilometrage mostly due to double tracking in broad gauge system, in the last 30 years, the passenger traffic has increased more than two and a half times, from 66.5 to 177 billion passengers kilometres and freight traffic more than three and a half times, (from 44 to 163 billion tonne-kilometres. This has resulted in a sharp increase in the density per kilometre both on broad and metre gauges with heavy strain on track. The arrears in track renewals which were 13,100 kilometers at the beginning of the Sixth Five Year Plan in April 1980 have now gone up to nearly 20,000 kilometres i.e., about a third of the entire track kilometrage in the country. In addition, the Committee find from the Report of the Comptroller and Auditor General of India for the year 1981-82, Union Government (Railways) that the old steel girders in 2700 bridges erected prior to 1905 had become brittle and needed early replacement. At the same time, there is a general grievance that very little has been done to connect the inner backward areas of the country by rail. In the light of the above facts, the Committee are led to the inescapable conclusion that the funds allocated by the Planning Commission for the Railways after the Third Plan have been grossly inadequate to meet the Railways' needs both for development and renewal.

4. Before Independence, the Railway system in India was developed primarily to provide communications with the major ports and large cities, keeping in view the administrative, strategic and trade imperatives of that time. The communication needs of the remote backward areas were not paid due attention. In fact, the idea of the Railways playing a pivotal role in the development of these areas was not even seriously considered. However, even after Independence, the Committee regret to observe, much attention has not been paid to the needs of the backward areas. During their visit to various States, the Committee have been faced with persistent demands for opening new lines for providing development of under-developed areas. It was conceded by the Member (Engineering), in evidence, that so far only one Railway line has been constructed exclusively on the consideration of backward areas. The Committee appreciate

that development of backward regions is to be seen in totality and not in terms of rail transport alone. All the same the Committee would like to emphasise that inadequacy of transportation does act as a major inhibiting factor in the actual process of development of an area. In the opinion of the Committee, development of backward regions and achieving regional balance by establishing new growth centres and by giving access to remote areas should be among the main considerations while deciding about a new Railway line. The Committee regret to observe that due weightage has not been given to this factor so far.

5. The Committee note that a project is considered financially viable under conventional method if the rate of return on capital investment is 6.75 per cent in the Sixth year of its operation and under discounted cash flow scheme a project is justified if it earns an internal rate of return of at least 10 per cent on capital investment. This percentage of 6.75 is expected to cover dividend liability of 6 per cent and a fair contribution to Depreciation Reserve Fund and Development Fund of the Railways. The Committee are informed that there are exceptions where it is necessary to have a connecting link or for strategic reasons. The Committee desire that among the exceptions may be included lines to be constructed in the context of development of remote, backward areas (particularly tribal areas).

6. From the figures of 48 new lines (longer than 20 Kms) constructed by the Railways since 1950, the Committee find that in most cases the return estimated by the Railways in the sixth year after opening of a line, which usually forms the basis of the Railway Board's investment decision for starting a new line, was quite off the mark. Out of 48 lines, the actuals were closer to anticipations only into four cases i.e., Indore-Ujjain line (8.39 per cent and 10.34 per cent), Panskura-Haldia Port line (6.01 per cent and 7.06 per cent), Dutibori-Ummer line (36.3 per cent and 38.4 per cent) and Guna-Muski line (—4.23 per cent and —3.33 per cent). How unrealistic the anticipations of the Railway Board were in other cases can be seen from the fact that as against the anticipated return of (—) 1.87 per cent in case of Kumedpur-Barsoi line, the actual return was (+) 48.08 per cent. There were 17 other cases where the actuals, in the sixth year were far in excess of the anticipations of the Railway Board. One of such lines—Naomundi-Banaspani line—showed a return of 64.77 per cent as against the anticipated 8.53 per cent and another line—Jhund-Kandla line—showed a return of 44.49 per cent against 9.42 per cent. In 12 lines, the actuals were far below the anticipations and in ten others the positive projections had turned out to be negative. All these show how

faulty the return projections of the Railway Board were. As conceded by the Chairman, Railway Board, 'many reforms are necessary in our present system of commercial and traffic survey'. The Committee, therefore, recommend an indepth study of the estimation parameters and techniques with a view to refining them so as to give realistic projections.

7. At present the financial return seems to be the sole criterion for clearance of a Railway Project. The Committee strongly feel that the economic internal rate of return ought to be given due weightage as in the case of Projects of Public Undertakings. Other things being equal, a Railway Project showing a higher economic benefit should be preferred. The Committee accordingly desire that a suitable system of assessing economic costs and benefits of Railway Projects should be developed and economic cost benefit analysis invariably made. For this purpose, the organisation of Economic Adviser of Railways should be qualitatively strengthened.

8. One of the reasons for the projections going away is that there is often time lag between completion of a project report and actual taking up of the work. Even after taking up the construction, there is quite often time overrun due to one reason or the other. In course of time, many new factors crop up which upset the original calculations. The Committee, therefore, consider it imperative that on the eve of actual commencement of construction, the survey report should be updated taking into account all new factors that might have taken place in the meanwhile. The Committee would also commend the idea that on completion of a survey report, the concerned State Government should be apprised/consulted before submitting the proposal to the Planning Commission for a final decision.

9. Admittedly, there is no automatic system of updating of surveys with a view to seeing whether Projects earlier found unviable and rejected had subsequently turned viable on account of development of the area concerned industrially or otherwise. The Committee regard this as a serious lacuna. They hope that as promised by the Chairman, Railway Board before them the matter would be examined and a system evolved whereby rejected Projects becoming viable subsequently are taken up for approval and implementation in the interest of the regions concerned. It should not be a case that a Project once rejected always stands rejected no matter what developments take place later or that outside pressure has to be generated to reconsider such a project.

10. There should be a shelf of a large number of feasible projects to enable a selection out of them. The feasibility has to be ascertained with reference to not only financial but also socio-economic benefit and keeping in view the criteria spelt out by the Committee elsewhere in this Report. The Committee are surprised that in respect of certain projects urged by State Governments (e.g. Forbesganj-Thakurganj via Bahadurganj) even initial survey has not been undertaken on the specious plea that funds for construction may not be available. There should be no such reluctance in undertaking feasibility studies. The Committee hope that the feasibility studies would be undertaken in these cases without delay and decision taken on merits to go ahead with construction.

11. The Committee have already emphasised the need for priority for the lines aimed at the development of backward areas. They feel that, being the principal mode of transport in the country, the Railways have an important role to play in the national integration of the country. Seen from this angle, the Committee feel that the lines aimed at connecting the capitals of the States and Union Territories also merit priority. With the same end in view, priority should also be given to the lines giving access to remote areas and the border areas not yet connected with rail. In the case of such lines also, the usual return criterion could be relaxed.

12. In the light of the foregoing, the Committee suggest that the following should be the broad criteria for taking up new lines :

- (1) Strategic lines;
- (2) Project-oriented lines to serve new industries, or to tap mineral and other resources;
- (3) Lines aimed at development of backward areas (including tribal areas)
- (4) Lines to connect capitals of States and Union Territories;
- (5) Lines to provide missing links which form alternative routes to relieve congestion on existing busy rail routes; and
- (6) Lines to give access to remote areas other than those specified in (3) above.

13. An important point which has been raised before the Committee is whether, other things being equal, a project for which a substantial contribution in the shape of free land, earthwork, wooden sleepers, etc. is offered by a State Government should not be given preference to a project for which no such offer is received. The view expressed by the Joint Adviser (Transport), Planning Commission in evidence was that "each project can be considered on merits and there is no preference as such." On the other hand, the Secretary, Planning Commission agreed that "preference should be given" to a project for which an offer of land or earthwork etc. has been received "provided other things are equal as between two projects." The Committee have given a careful thought to the whole matter. Their considered view is that while selecting new lines, the Railway Board should strictly go by the criteria laid down by the Committee in the preceding paragraph and the offer of contribution by a State Government should not enter into their reckoning at that stage. If, however, after the strict application of these criteria, the Railway Board come to the conclusion that two projects merit equal consideration in all respects, they (Railway Board) may consider giving preference to a project for which contribution has been offered by a State Government, for such contribution will help in faster progress of the project. In this connection, the Committee, however, wish to draw the attention to the observations of the Joint Adviser (Transport), Planning Commission: "It can happen that if the affluent States start providing land, earth-work etc. whatever little money is there will go to them and we might not be able to meet the needs of backward States." The Committee caution that such a situation should not arise out of the preference suggested by them.

14. Another aspect which has greatly disturbed the Committee is almost total lack of planning in taking up new lines for construction. Individual projects which satisfy the broad criteria (including the rate to return criteria) are selected in an ad hoc manner for being taken up for execution and not as a part of some well-conceived plan. Too many projects are taken up simultaneously resulting in the limited resources at the disposal of the Railways getting distributed thinly thereby delay-



ing the completion of the projects. Quite often, the existing on-going projects are slowed down or frozen, but at the same time similar new projects are taken up. A typical instance of delay in completion is the Hassan-Mangalore line which has taken 15 years. There are numerous such instances. It is not clear to the Committee why work on a large number of projects is taken in hand when the Railways are well aware that it would not be possible to complete them within a reasonable period. Apart from time and cost overruns, it results in frustration among the public hoping to benefit from such projects. The Committee feel that time has come when the Railways Board gave up their practice of ad hoc selection and re-oriented their whole approach in the matter. The Committee desire that keeping in view the broad criteria laid down by them in a preceding paragraph, the Railway Board should draw up a long-term perspective Plan for track expansion for the next 20 years in consultation with the Planning Commission for implementation from the start of Seventh Plan. Under this Plan, projects should be taken up for execution strictly in the order of their priority in the Plan and once started, should be progressed to completion according to their time-schedule without any interruption during the Seventh Plan period.

15. The Committee observe that the expenditure on new lines, which was Rs. 33.35 crores in the First Plan rose to Rs. 211.96 crores in the Third Plan but decreased to Rs. 66.68 crores in the Fourth Plan and slightly increased to Rs. 114.29 crores in the Fifth Plan. Rs. 154.93 crores have been spent during first three years of the Sixth Plan. The total outlay on new lines for the Sixth Plan is Rs. 380 crores. The expenditure during the three years of the current Plan is thus much less than the proportionate outlay. These figures are in current prices. It is obvious that not much of expenditure has been incurred since commencement of the planned era in the country. There is no fixed proportion of the total Plan allocation for the Railways earmarked for the construction of new lines. The Committee have recommended in the preceding paragraph that the Ministry of Railways (Railway Board) should draw up a 20-year perspective Plan for construction of new

lines. It is imperative that adequate funds for each Plan period are earmarked for construction of new lines. The Committee also desire that the funds so allocated for the construction of new lines should not be allowed to be diverted to any other Plan head, nor should the funds allotted for specific projects be ordinarily allowed to be diverted to any other project.

16. A pre-requisite of planned process is pre-determined physical targets and periodical comparison of achievements with those targets in order to take timely steps to achieve the targets. In a note furnished to the Committee, the Ministry of Railways have stated that it is not possible to indicate physical targets of new lines, gauge conversion and doubling as the progress of the various works is mainly determined by the availability of funds for the total plan of the Railways which in turn depends upon the total resources that can be mobilised and the requirement of other sectors. This argument is unacceptable to the Committee. Our plans ought to be need based. The need having been felt and provided for in the Plan, money has to be found to execute the Plan except in exceptional circumstances of financial stringency. In future, the Committee would expect clear physical targets and efforts to achieve them.

17. As already mentioned, the arrears in track renewals have assumed alarming proportions. The arrears, which were 13,100 kms. at the beginning of the Sixth Plan in April 1980, are expected to go upto 20,000 kms. by the end of Sixth Plan, even assuming accelerated renewals during the plan period. A provision of Rs. 500 crores was made in the Sixth Plan for track renewals against which expenditure during 1980—82 was Rs. 281.39 crores. Though the expenditure was more than the proportionate outlay during these years the physical achievement fell far short of the target. As against 8,000 kms. of track renewals targetted during the Plan period, only 3921 kms. were renewed in the first three years of the Plan. The slow pace of track renewal is reported to have led to the speed constraint affecting the productivity of the railway system. The need for expeditious clearance of backlog of track renewals cannot be over-emphasised. Taking into consideration

the extent of the problems, it is necessary to follow a phased programme of wiping out the arrears at least by the end of the next ten years.

18. The Committee find that as per the estimate of the National Transport Policy Committee, to meet the traffic needs of the country in the next 20 years, another 5,000 kilometerage of track will have to be added. This means about 1250 kilometerage per Plan period. At current prices, it will mean an outlay of about Rs. 375 crores for a Plan period, i.e. about Rs. 75 crores per year. A huge investment will also be required for track renewal programme.

19. The need to provide adequate funds to meet the total requirements of Railways for track expansion and rehabilitation/replacement of overaged assets is recognised by all. The Committee feel that the first effort in this direction will have to be made by the Railways themselves. The Committee note in this connection that the proportion of Railways' internal resources to their Plan outlay, which was 66 per cent in the First Plan, came down to 30 per cent in 1979-80. Thereafter, it started rising and in 1983-84, it is expected to be 56 per cent. The Committee feel that there is scope to further improve Railways' internal resources by continuous improvement of their operational efficiency and optimal utilisation of their existing assets. But in spite of all this, the Committee are aware that it would not be possible for the Railways to find the entire finance for the track expansion/renewal programmes. In this connection, the Committee would like the Planning Commission and the Ministries of Finance and Railways to sit together and see how far the following avenues can be explored:

- (1) Upto the Fourth Plan, the balance in the Depreciation Reserve Fund was kept outside the Plan funds. Since the beginning of the Fifth Plan, it has been forming part of the Plan kitty. The possibility of restoring status quo ante may be examined.
- (2) The Railways pay dividend on the capital invested from General Revenues. If the cumulative dividend already paid is in excess of the related capital, the excess should be ploughed back to finance Railway development and renewal programmes in addition to the normal plan allocation.
- (3) In case Railways are assisted by foreign aid, such assistance should be regarded as addition to the normal Plan fund development and renewal programmes.

- (4) It may also be seen whether the project-oriented lines can be treated as a part of the project itself and the expenditure thereon could form part of the expenditure on the project as a whole. Alternatively, the losses, if any should be made good by grant of subsidy to Railways by the related authority.
- (5) Another important field for raising resources could be commercial exploitation of Railway lands/property, as is being done in some other countries already.

20. Demands have been made from various quarters for conversion of metre gauge lines into broad gauge lines. The Committee note that, according to the criteria at present followed by the Railway Board, a project for gauge conversion is taken up only when a section becomes saturated and is incapable of handling additional traffic or when the magnitude of transshipment involved is such that it is uneconomical or is not feasible at all, or when it is needed for providing speedy and uninterrupted means of communication to areas which have potential growth. The Committee note that in pursuance of this policy, the Railways have practically converted the lines where there is heavy density of freight with a view to avoiding transshipment. The Committee find that in a number of foreign countries, the metre gauge system is working satisfactorily. Also there is not much of a difference between meter gauge and broad gauge, so far as passenger traffic is concerned. Further, as submitted by the Chairman, Railway Board, in evidence, "Our country is not very rich to afford conversions." In view of this, the Committee feel that as far as possible, gauge conversions should be avoided; and no gauge conversion is taken up unless it becomes absolutely necessary to do so on consideration of heavy freight density. In the meantime, the Railways should improve the operational conditions of such lines so that the need for such conversion is avoided. However, the Committee would urge early decision on and completion of gauge conversion wherever the survey report already available indicates that it is absolutely necessary (e.g. Katihar—Jogbani line in view of its strategic and economic importance).

21. The Committee find that since the commencement of the First Plan, 8777 kilometerage has been added by way of doublings as against 7731 by way of new lines. The double/multiple lines which stood at less than 5,000 kilometers at the beginning of the First Plan rose to 13,141 kilometers as on 31-3-1982. The Committee find that while individual schemes for new lines and conversions are required to be placed before the Planning Commission, no clearance from the

Planning Commission is required for individual doubling projects, which are decided by the Ministry of Railways themselves. According to the Ministry of Railways, doubling projects are always taken up with a view to augment capacity on saturated|congested sections to meet the anticipated increase in the level of traffic and as such, "it is desirable to give priority to doubling projects." While in principle the Committee do not disagree with the need for augmenting capacity on saturated|congested lines, they feel that it should not be at the cost of needs of remote, backward areas. The Committee cannot fail to notice a pronounced preference to gauge conversion and doubling of lines as compared to new lines in the past. Now that practically all the trunk routes have already been provided with double/multiple lines and gauge conversion has been done wherever there was heavy density of freight traffic, the Committee feel that emphasis should shift to construction of new lines, particularly those aimed at linking remote, backward areas and the funds for new lines augmented.

22. Intimately connected with the foregoing is the question of removal of congestion and dispersal of Railway facilities from and between the metropolitan cities of Bombay, Calcutta, Madras and Delhi. Because of historical reasons the thrust of investment has hitherto been in and around the aforementioned metropolitan cities and the trunk routes connecting them. Even after Independence, this concentration has unfortunately continued. The result has been further congestion on the one hand and the accentuation of regional imbalance on the other. In the opinion of the Committee, time has now come when with a view to removing the congestion as also attaining a fair measure of dispersal of Railway infrastructure developing new growth centres in the country, further concentration of investment in around the metropolitan cities and trunk routes connecting these cities should be avoided. The Committee have no doubt that as a result of this, the country as a whole will be overall richer in infrastructure. As deposed by the Chairman, Railway Board before the Committee, if instead of further investment on the Grand Trunk route, investment could be made in the West-Coast line—between Bombay and Mangalore, one

could reach Mangalore from Delhi in 24 hours. Likewise, by well-thought out and well-worked out investments in and around the coal and other mining belts, the industrial map of the country could be changed. The Committee trust that the Railway Board will attend to it at the earliest.

23. Intra-city rail transport is distinctly different from inter-city rail transport. The Committee understand that comprehensive plans for intra-city transport are being evolved for major cities. Infact the Metro Railway for Calcutta is under construction and its first sector would become operational soon. The Committee recommend that there should be a separate Metro Railway Authority for each major city to plan, construct and operate the intra-city railway system.

24. The Committee note that the Railway Convention Committee (1973) had called for a review to identify the lines which should be closed keeping in view the availability of alternative modes of transport in the concerned sections. Review carried out by the Railway Board in consultation with the Zonal Railways in 1976-77 disclosed that there were 23 uneconomic branch lines where satisfactory alternative modes of transport were available and that the closure of the lines would not adversely affect the public interest. The Ministry of Railways approached the concerned State Governments to agree either for closure of those lines or for the reimbursement of the losses sustained by the Railways in operating these lines. None of the State Governments have agreed to the proposal of the Ministry of Railways to discontinue the lines. A few other committees have also recommended closure of these lines. However, no decision has been taken in the matter so far. The Committee are of the view that since there is reluctance on the part of the concerned State Governments, the issue should be re-examined with a view to seeing whether these lines could be made viable by improving speed or changing the timing of trains to suit the convenience of the travelling public or by providing more passenger facilities.

25. Several suggestions for starting new lines have been made to the Committee by different State Governments/other organisations and representatives of the people. The Committee have already suggested board criteria for starting new lines. They desire that the Railway Board should consider these suggestions in the light of the broad criteria indicated by the Committee and such of them as, in their opinion, fulfil the said criteria may be considered for inclusion in the perspective Track Expansion plan suggested by the Committee in para 12 ante.

NEW DELHI;  
 August 10, 1964  
 Sravana 19, 1906 (S)

D. L. BAITHA,  
 Chairman,  
 Railway Convention Committee.

## APPENDIX I

(Vide paragraph 53)

The anticipated and the actual rate of return in the sixth year of opening of New Railway lines (Longer than 20 Kms.) Constructed Since 1930

S. No.	Particulars of line	Gauge	Date of opening	Return in % (6th year)	
				Anticipated	Actual
1	2	3	4	5	6
1	Mukherian—Pathankot . . . .	BG	7-4-52	0.05	7.32
2	Arautangi—Karaijadi . . . .	MG	29-3-52	(—) 2.07	(—) 0.13
3	Gandhidam—Decsa . . . .	MG	1-10-52	2.74	(—) 5.08
4	*Chunar—Robertganj—Churk . . . .	BG	12-7-54	Will be given later	
5	Quilon—Ernakulam . . . .	MG	6-1-58	3.75	7.42
6	Champa—Korba (including extension) . . . .	BG	20-12-56	17.4	27.9
7	Khandwa—Hingoli . . . .	MG	21-1-61	3.06	(—) 2.35
8	Gop—Katbela . . . .	MG	16-12-55	6.93	16.24
9	Barhan—Etah . . . .	BG	13-1-59	3.98	(—) 4.59
10	Indore—Ujjain . . . .	BG	19-5-58	8.39	10.34
11	Fatehpur—Churu . . . .	MG	1-3-57 (P)	3.85	0.95
			1-8-57 (G)		
12	Raniwaa—Bilidi . . . .	MG	24-4-58	(—) 1.84	(+) 1.43

\*A portion of this line is a part of Robertganj—Garhwa Road line, hence the financial results of this line are not being prepared separately.



1	2	3	4	5	6
13	Noanundi—Bansapani . . .	. BG	16-4-58	8.53	64.77
14	Bondamunda (Rourkela)—Dumaro . . .	. BG	24-12-53	8.04	5.11
15	Bhilai—Dalli Rajhara . . .	. BG	31-10-60	11.50	40.4
16	Barasat—Hasnabad . . .	. BG	9-2-62	4.88	(—) 4.69
17	Chandrapura—Muri—Ranchi—Hatia . . .	. BG	22-12-60	42.73	20.73
18	Robertsganj—Garhwa Road . . .	. BG	1-4-64	4.68	0.08
19	Kumardpur—Barsoi . . .	. BG	14-12-59	(—) 1.87	48.08
20	Bauridand—Karonji . . .	. BG	1-10-62	5.25	(—) 0.55
21	Ghaziabad—Thughlakabad (including Second Yamuna Bridge)	. BG	15-3-67	18.4	2.69
22	Bondamunda—Nowagon—Purnapani . . .	. BG	27-12-64	42.75	5.66
23	Buktiarpur—Rajgur . . .	. BG	8-4-62	1.51	(—) 1.19
24	Khujunaghat—Malda . . .	. BG	10-4-61	16.77	11.17
25	Sambalpur—Titlagarh . . .	. BG	15-4-63	13.8	27.48
26	Bimlaghar—Kiriburu . . .	. BG	16-4-63	6.67	15.04
27	Rangapara North—North Lakhimpur— Mor kongselak . . .	. MG	26-1-66	(—) 1.55	(—) 9.43
28	Hatia—Nowagon . . .	. BG	27-12-64	9.27	7.26
29	Udaipur—Himmatnagar . . .	. MG	12-4-66 (P)	4.79	0.68
			14-11-65 (G)		

30	Kotavalase—Bailadilla . . .	BG	1-11-68	4.69	10.87
31	Divi—Panval—Uran . . .	BG	31-12-66	(—) 1.47	5.55
32	Hindumalkot—Singanganagar . . .	BG	24-7-70	2.55	23.44
33	Singrauli—Obra . . .	BG	31-3-70	4.09 *	20.60
				24.81 **	
34	Kalkilghat—Dharamnagar . . .	MG	1-4-64	(—) 1.7	(—) 2.11
35	Singrauli—Katni . . .	BG	16-4-76	(—) 0.15	1.76
36	Manamadurai—Virudhunagar . . .	MG	5-9-63 (P)	5.2	(—) 1.17
			25-5-64 (G)		
37	Bangalore—Salem . . .	MG	1-6-67 (P)	5.54	(—) 0.49
			14-1-69 (G)		
38	Panskura—Haldia Port . . .	BG	1-3-76	6.07	7.06
39	@Siliguri—Joghighopa . . .	BG	2-6-65	N.A.	(—) 1.23
40	Dutibori—Umre . . .	BG	18-12-65	36.3	38.74
41	Haan—Mangalore . . .	MG	25-12-79	1.50	Not due
42	Guna—Maksi . . .	BG	16-8-76 (P)	(—) 4.23	(—) 3.33
			16-4-77 (G)		
43	Jhuni—Kandla . . .	BG	Oct., 69	9.42	44.49
44	Pokharan—Jaisalmer . . .	MG	28-1-68	3.97	15.81

\* without coal

\*\* with coal

@ The work was started on urgency certificate and no anticipated return was worked out even at the completion estimate stage.

1	2	3	4	5	6
45	Cuttack—Paradeep	. . . . . BG	22-2-77	10.44	1.89
46	Kathua—Jammu	. . . . . BG	20-10-72	5.2	16.40
47	Dabra—Singhana	. . . . . MG]	31-5-74	7.54	19.01
48	Tornagullu—Mudukulapenta	. . . . . BG	12-11-76	10 to 15	39.13
49	Sabarmati—Gandhinagar	. . . . . BG	28-4-76	6.75	13.44
50	Trivandrum Central—Nagercoil—Tirunelveli (including Nagercoil—Kanyakumari)	BG	2-4-81	8.2	Not due
51	Vasai Road—Diva	. . . . . BG	12-4-83 (G)	8.53	Not due
52	Delhi Shahadara—Saharanpur	. . . . . BG	Nov. 80	0.1	Not due
53	Jhanjharpur—Lauka Basar	. . . . . MG	Nov. 76	2.61	(—) 12.08
54	Rohtak—Bhiwani	. . . . . BG	3-6-80	(—) 11.56	Not due
55	Bhinagar—Nalgonda ph. 1 (Bhinagar—Nadikudo)	. . . . . BG	27-3-81 (Ph. 1)	12.42 (whole project)	Not due
56	Jhalapura—Daitari Phase I (Jhalapura—Bunwandi)	. . . . . BG	22-3-81 (Ph. 1)	5.21 (whole project)	Not due
57	Bhadrachalam Road—Manuguru	. . . . . BG	29-9-83 (G)	10.95	Not due
58	Apia—Pen Phase I (Apia—Roha)	. . . . . BG	21-2-83 (Ph. 1)	18.0 (whole project)	Not due

# Appendix II

(Vide paragraph 77)

List of New Railway lines (Longer than 20 Kms) Constructed since 1950

S. No.	Particulars of line	Gauge	Length (Kms)	Cost (Rs. crores)	Year of commencement	Year of completion	Broad purpose
1	2	3	4	5	6	7	8
1	Mukherian - Pathankot .	BG	42.98	3.77	1950	1952	B
2	Arantangi - Karaikudi .	MG	27.31	0.41	1950	1952	B
3	Gandhidham - Decsa .	MG	272.06	5.74	1950	1952	B
4	Chunar - Robertganj - Chark .	BG	79.07	2.02	1951	1954	A
5	Quilon - Erankulam .	MG	154.48	5.56	1953	1956	D
6	Champa - Korba (including extension)	BG	50.70	2.47	1953	1956	A
7	Phandwa - Hingoli .	MG	302.48	12.49	1954	1961	B
8	Gop - Kathola .	MG	32.37	0.41	1954	1955	B
9	Barhan - Etah .	BG	61.80	1.34	1955	1959	D
10	Indore - Ujjain .	BG	70.77	3.22	1955	1958	B
11	Pachpur - Churu .	MG	32.88	0.65	1955	1957	B
12	Raniwara - Bhildi .	MG	69.79	1.30	1955	1958	B

	2	3	4	5	6	7	8
13	Noamundi - Bansapani . . . . .	BG	28.05	2.89	1955	1958	A
14	Bondamunda (Rourkela) - Dumaro . . . . .	BG	67.00	7.38	1956	1960	A
15	Bhilai - Dalli Rajhara . . . . .	BG	85.00	4.30	1956	1958	A
16	Barasat - Harnabad. . . . .	BG	39.06	2.56	1957	1962	C
17	Chandrapura - Muri - Ranchi - Hatia . . . . .	BG	143.30	13.37	1957	1961	A
18	Robtersganj Garhwa Road . . . . .	BG	163.27	21.34	1958	1963	A
19	Kumedpur - Barsoi . . . . .	BG	25.00	1.00	1958	1959	B
20	Bauridand - Karonji . . . . .	BG	85.10	6.91	1958	1962	A
21	Ghaziabad - Thughlakabad (including second Yamuna Bridge) . . . . .	BG	54.30	5.99	1958	1966	A
22	Bondamunda - Nowagon - Purnapani . . . . .	BG	27.71	2.65	1958	1964	A
23	Buktiarpur - Rajgir . . . . .	BG	53.84	2.56	1959	1962	D
24	Khejunaghat - Malda . . . . .	BG	37.00	3.91	1959	1961	A
25	Sambalpur - Titlagarh . . . . .	BG	182.00	15.59	1959	1963	B
26	Bimlaghar - Kiriburu . . . . .	BG	41.23	5.94	1960	1963	A
27	Rangapara North - North Lakhimpur - Morkongelak . . . . .	MG	327.93	30.38	1960	1965	D
28	Hatia - Nowagaon . . . . .	BG	137.45	13.95	1960	1964	A
29	Udaipur - Himmatnagar . . . . .	MG	215.00	11.41	1960	1965	A
30	Kottavalasa - Bailadilla . . . . .	BG	447.00	56.68	1961	1968	A
31	Diwa - Panvel - Uran . . . . .	BG	54.22	2.16	1961	1966	D

32	Hindumalkot - Sriganaganagar . . . . .	BG	27.26	1.17	1961	1970	D
33	Singrauli - Odra . . . . .	BG	56.57	11.41	1961	1970	A
34	Kalkalighat - Dharamnagar . . . . .	MG	31.36	2.30	1961	1964	B
35	Singrauli - Katni . . . . .	BG	246.26	24.37	1962	1975	A
36	Manamadurai - Virudhunagar . . . . .	MG	66.10	2.53	1962	1964	B
37	Bangalore - Salem . . . . .	MG	229.33	8.50	1962	1968	D
38	Panskura - Haldia Port . . . . .	BG	69.61	8.25	1963	1976	A
39	Siliguri - Joghithopa . . . . .	BG	265.00	32.50	1963	1965	D
40	Buribori - Umrer . . . . .	BG	34.00	2.55	1963	1965	A
41	Haugn - Mangalore . . . . .	MG	189.21	42.00	1964	1979	A
42	Guna - Maksi . . . . .	BG	193.21	10.00	1964	1976	B&D
43	Jhund - Kandla . . . . .	BG	230.84	16.53	1964	1969	A
44	Pokharan - Jaisalmer . . . . .	MG	105.00	2.50	1966	1968	A
45	Cuttack - Paradeep . . . . .	BG	84.31	10.00	1967	1973	B
46	Kathua - Jammu . . . . .	BG	77.00	13.80	1968	1972	B
47	Dabra - Singhana . . . . .	MG	32.90	2.80	NA	1974	A
48	Tornagullu - Mudukulapenta . . . . .	BG	24.00	3.30	1971	1976	A
49	Sabarnati - Gandhinagar . . . . .	BG	27.85	2.85	1973	1976	A
50	Trivandrum Central - Nagercoil - Tirunelveli (including Nagercoil - Kanya-Kumari) . . . . .	BG	160.00	38.72	1972-73	1981	D

1	2	3	4	5	6	7	8
51	Vasai Road - Diva	BG	41.96	29.50	1972-73	1983	B
52	Delhi Shahdara - Saharanpur	BG	157.80	34.38	1973-74	1980	C
53	Jhagharpur - Jauka Bajar	MG	43.80	2.58	1974-75	1976	D
54	Rohtak - Bhiwani	BG	49.30	7.94	1974-75	1980	D
55	Bibinagar - Nalgonda Ph. I (Bibinagar - Nadikude)	BH	73.52	12.52	1974-75	1981	A
56	Jhakapura - Daitari Phase I (Jhakapura - Bansapani)	BG	33.05	9.31	1974-75	1981	A
57	Bhadrachalam Road - Manuguru	BG	49.05	16.03	1977-78	1983	A
58	Apta - Pen Phase I (Apta - Hoha)	BG	20.35		1978-79	1983	A

\* Purpose of the project has been broadly classified as follows:—

- A. Project linked, i. e. linked with some specific project, for movement of bulk raw materials or on strategic considerations
- B. To provide missing link/alternative route or connection to ports.
- C. To restore closed/abandoned lines. D.— General Development.

# APPENDIX-III

(Vide paragraph No. 77)

On-going Projects on New lines at the Start of Sixth Plan.

Sl. No.	Name of line	Year of commencement/works programme	Length (kms)	Cost Earlier envisaged Cost (Working Group)	Latest Estimated cost	Plan Outlays 1980-84	Estimated Expenditure in 1980-84	Expend. upto 31-3-84	Outlay for 84-85	Remarks
1	2	3	4	5	6	7	8	9	10	11
1	Mangalore-Hasan	1963-64	189.21	49.50	51.63	1.43	4.15	51.43	0.20	Opened
2	Vasai Road-Diva	1972-73	42.00	23.48	30.00	7.53	11.87	29.61	0.10	do
3	Tiruvvelveli-Trivandrum-kanyakumari	1972-73	159.80	27.99	38.60	4.50	12.48	37.98	0.32	do
4	Howrah-Sheakala	1972-73	17.40	3.50	7.00	0.22	0.01	0.01	0.0001	
5	Wani-Chanaka	1973-74	75.70	5.29	14.50	7.96	10.10	12.73	1.00	
6	Shabdara-Sharanpur	1973-74	157.80	24.89	34.38	7.57	11.16	31.05	1.00	Opened
7	Chaitauni-Bagaha	1974-75	28.41	6.74	23.59	7.43	1.02	2.97	0.01	
8	Bibinagar-Nadikude	1974-75	149.00	25.62	39.15	14.00	16.35	22.59	2.12	Ph. I (Bibinagar-Nalgonda opened).
9	Jahnapura-Banspani	1974-75	176.00	39.00	74.00	2.05	2.75	6.78	0.0001	(Ph. I Jahnapura-Daitari opened).
10	Rohtak-Bhiwani	1974-75	49.30	6.09	7.94	1.37	2.18	7.91	0.03	Opened
11	Sakri-Hasanpur	1974-75	74.90	4.75	10.38	0.79	0.16	0.21	0.0001	
12	Ranpur-New Haldwani	1974-75	83.66	12.98	26.80	2.01	1.18	1.39	1.00	



1	2	3	4	5	6	7	8	9	10	11
13	Howrah-Amta . . . . .	1974-75	73.53	10.72	31.78	6.25	7.05	9.76	2.00	Opened upto Domjur (16 Kms.)
14	Karaila Road-Jayanti . . . . .	1977-78	33.00	19.83	23.55	10.94	8.49	22.62	0.70	Opened
15	Bhadrachalam Road-Manuguru . . . . .	1977-78	49.05	8.20	19.95	10.65	11.31	15.96	1.00	do
16	Apta-Roha . . . . .	1978-79	62.00	11.12	21.54	9.08	12.09	15.22	2.00	Ph. I. (Apta-Pen) opened.
17	Kapadvanj-Modasa . . . . .	1978-79	60.50	5.38	10.00	0.69	1.21	1.99	0.40	
18	Gauhati-Burnihat . . . . .	1978-79	26.70	8.20	18.50	2.61	0.63	0.64	0.01	
19	Dharmanagar-Kumarghat . . . . .	1978-79	33.00	9.67	29.59	12.25	9.00	9.70	4.75	
20	Silchar-Jiribam . . . . .	1978-79	49.16	12.13	26.68	9.35	6.87	7.57	3.75	
21	Balipara-Balakpong . . . . .	1978-79	35.46	4.70	9.97	7.80	3.61	4.32	3.75	
22	Anguri-Tuli . . . . .	1978-79	14.65	4.83	5.83	4.50	1.83	2.53	1.50	
23	Lalabazar-Bhairabi . . . . .	1978-79	48.77	10.76	27.18	8.35	6.08	6.78	4.25	
24	Ernakulam-Alleppey . . . . .	1979-80	57.12	7.00	22.00	8.09	9.58	10.58	3.00	
25	Tupkadih-Talgaria . . . . .	1979-80	33.00	5.50	11.14	8.60	8.60	8.90	2.00*	
26	Manikgarh-Chandur . . . . .	1979-80	28.60	6.00	9.26	9.00	6.49	6.50	2.55*	
27	Kota-Chitorgarh-Nimach . . . . .	1980-81	235.00	41.09	94.00	12.10	10.39	10.39	10.00	
28	Mokumari-Jaggayapeta . . . . .	1980-81	31.56	7.00	19.22	4.69	3.93	3.93	1.50	
29	Miraj-Sangli . . . . .	1980-81	7.77	0.53	1.36	0.36	0.001	0.001	0.0001	
30	Bringing Old Madhavnagar on the Main line . . . . .	1980-81	7.00	0.72	1.22	0.36	0.001	0.001	0.0001	

\* Likely to be completed in Sixth Plan.

# APPENDIX-IV

(Vide paragraph 77)

Projects on New Lines taken up during Sixth Plan (Upto 31-3-1984)

Sl. No.	Name of Line	Year of commencement/Programme	Length (Kms.)	Cost Earlier envisaged Cost (Working Group)	Latest Estimated Cost	Expend. upto 31-3-84	Outlay for 1984-85	Remarks
1	2	3	4	5	6	7	8	9
1	Jammu Tawi-Udampur	81-82	53.2	50.00	69.50	3.05	2.00	
2	Bhuj-Naliya	81-82	110.00	22.00	41.00	5.53	4.70	
3	Telapur-Patacheru	81-82	8.40	3.44	3.44	1.87	1.00*	
4	Karur-Dindigul Maniyachi-Tuticorin/Tirunelveli	81-82	324.47	42.06	68.69	6.12	4.00	
5	Koraput-Rayagada	81-82	174.32	112.10	200.00	19.70	12.50	
6	Chitradurg-Rayadurg	81-82	100.00	16.92	20.20	0.82	2.00	
7	Nangal Dam-Talwara taking over Mukerian Talwara siding	81-82	03.74 +29.16	33.49	33.49	2.25	2.00	
8	Budge-Budge Namkhana including Lakshmikanthapur-Kulpi	81-82	100.39	20.77	20.77	0.01	0.0001	Not yet cleared by the planning Commission.

1	2	3	4	5	6	7	8	9
9	Bhatinda-Bypass.	82-83	8.30	2.95	2.95	1.15	0.35	
10	Kalka-Parwanoo .	82-83	4.31	1.60	1.60	0.26	0.0001	
11	Alleppey-Kayankulam	82-83	43.10	11.10	11.10	0.50	0.01	
12	Construction of rail-cum-road bridge across Brahmaputra at Jagghopa along with a BG railway line from Jagghopa to Gaubhati	83-84	142.00	87.73	87.73	0.19	2.50	
13	Mathura-Alwar	83-84	119.75	34.75	34.75	1.01	1.00	
14	Adulabad-Pimpalkutti	83-84	20.93	8.39	8.39	1.51	3.00	
15	Eklakhi-Balurghat	83-84	90.56	36.30	36.30	1.01	2.00	

\* Likely to be completed in Sixth Plan.

## APPENDIX V

[Vide paragraph 90]

*Details of Railway projects on track expansion/gauge conversion costing over Rs. 10 crores which suffered around 100% cost and time over-run.*

Sl. No.	Name of Project	Length (in Kms.)	Year when sanctioned	Year line opened for traffic	Original cost (Rs. in crores)	Cost now estimated (Rs. in crores)	Reasons for delay and cost over-run
1	Jathapura-Banspani new line.	176	1974-75	Phase I Jathapura to Daltari opened March, 81 work beyond Daltari not started.	39.00	75.00	Work on Phase I only from Jathapura to Daltari (33 Kms) was taken in hand first. The original target was 31-12 1980. This portion was opened for goods traffic as siding in March, 1981. Minor delay was due to delay in acquisition of land in some portion. Due to non-materialisation of iron ore traffic for export from Paradip Port and delay in finalisation of scheme for proposed steel plant in Daltari area and in view of acute paucity of funds, work on Phase II beyond Daltari has not yet been taken in hand. A traffic cum-final location survey is in progress for Phase II from Daltari to Keonjhar (91 Kms.). Increase in cost in mainly on account of increase in cost, labour and material and inclusion of some extra items of work for Phase I.
2	Tirunelveli Trivandrum including Nagercoil-Kanyakumari link.	BG	1972-73	April 81 Trivandrum Nagercoil Tirunelveli-Kanyakumari	14.54	38.60	Original target was 1974-75. It was first revised to 1976-77 and then to April, 1980. Reasons for time/cost over run was as follows :— (a) General constraints of availability, of funds.

3 Varsi-Road-Diva BG rail link.

4 Rampur-New Haldwani-BG rail link.

5	Barauni-Samastipur Gauge conversion from MG to BG.	1972-73	Opened in July '81 Residual works in progress.	46.35	125.88	<p>● Original target was Dec '79. The reasons for cost and time run-over have been :</p> <p>(a) Paucity of funds resulting in time over run.</p> <p>(b) Increase in cost of labour, materials and contracts.</p> <p>(c) Shortage of P.W. materials.</p> <p>(d) Additional works found necessary during the execution of work.</p>
6	New Bongaigaon Gauhati (Gauge conversion)	1974-75	April '84	24.79	67.00	<p>● Original target fixed was 1981. Time and cost over-run has been due to :</p> <p>(a) Continued agitation resulting in set back to work in 1979 and 1980.</p> <p>(b) Steep price in cost of labour materials and contracts.</p>
7	Virangam-Okha Port-bender (Gauge conversion).	1972-73	Virangam-happe opened in June '80. For balance target is April '84.	42.92	115.88	<p>● Original target date was 1976 for the Project. This could not be adhered to due to :</p> <p>(a) Paucity of funds. Cuts were imposed in funds provided in 1973-74, 74-75, and 75-76. There was steep rise in prices during the period specially period of oil crises in 1973 to 1975 and high inflation rate during 1976-80.</p> <p>(b) Shortage of permanent way material</p>
8	Manmad-Parbhani-Parli-Vajinath-Conversion MG to BG	1973-74	Not yet fixed	28.00	70.00	<p>Work on Phase I from Manmad-Aurangabad (114 Kms.) has been taken in hand. There has been acute paucity of funds for this project. Uptil now it</p>

1	2	3	4	5	6	7	8
9	Guntakal-Dharmavarum-Bangalore-Conversion from MG to BG.	1972-73	Jan.' 83 (Residual work in progress)	17.59	42.82	<p>has been possible to allocate only Rs. 3.81 crores including Rs. 3.01 crores in the current financial year. The cost of Phase I only upto Aurangabad is a present estimated at Rs. 27 crores.</p> <p>Reasons for delay in completion and cost over-run are :</p> <p>(a) Paucity of fund.</p> <p>(b) Increase in cost of labour &amp; materials.</p> <p>(c) Difficulty in availability of Permanent way materials.</p>	
10	Varanasi-Bhatni (Gauge conversion).	1977-78	Not yet fixed	13.81	40.83	<p>There has been acute shortage of funds with the result till now only Rs. 4.87 crores has been allocated to this project against the present estimated cost of Rs. 41 crores. There has been considerable increase in cost of labour, material and contract including that of permanent way material since the work was sanctioned.</p>	

# APPENDIX VI

(Vide paragraph 101)

*Gauge Conversion Schemes completed since 1950*

Sl. No.	Particulars	Conversion
1	Anjar-Bhuj . . . . .	N.G. to M.G.
2	Tejpur-Rangapora . . . . .	N.G. to M.G.
3	Gudur-Renigunta . . . . .	M.G. to B.G.
4	Katihar-Singhabad . . . . .	Do.
5	Kumedpur-Barsoi . . . . .	Do.
6	Siliguri-Haldhari . . . . .	Do.
7	Godivada-Bhimavaram . . . . .	Do.
8	Vijayawada-Masulipatnam . . . . .	Do.
9	Pune-Miraj-Kolhapur . . . . .	Do.
10	Ernakulam-Quilon-Trivandrum . . . . .	Do.
11	Sametipur-Muzaffarpur-Sonepur . . . . .	Do.
12	Barabanki-Sonepur-Hajipur . . . . .	Do.
13	Sonepur-Paleza Ghat (Mixed) . . . . .	Do.
14	Suratgarh-Bhatinda . . . . .	Do.
15	Virangam/Happa . . . . .	Do.
16	Dharmanagar-Yelahanka (Guntaka-Bangalore) . . . . .	Do.



# APPENDIX VII

(Vide paragraph 101)

On-going Gauge Conversion Schemes at the start of Sixth Plan

(Rs. in crores)

Sl. No.	Particulars	Year of commencement/ work programme	Length Kms.	Cost		Plan Outlays 1980-83	Estimated Expen. 1980-83	Expenditure upto 31-3-1983	Outlays for 1983-84	Remarks
				Earlier estimated cost (Wrg. Grp.)	Latest estimated cost					
1	2	3	4	5	6	7	8	9	10	11
1	Barabanki-Samastipur	1972-73	587.00	80.60	123.25	23.98	45.19	106.62	9.00	Opened
2	Viramgam-Otha-Porbander	1972-73	556.97	80.10	110.00	28.30	35.90	77.61	15.80	Ph. I-Opened (Viramgam-Hopa)
3	Bangalore-Guntakal	1972-73	267.00	25.90	42.92	17.10	20.71	35.75	2.00	Opened
4	Manmad-Parli-Vajinath	1973-74	354.00	30.90	70.00	1.51	1.95	2.53	1.01	
5	New Bongaigon-Gauhati	1974-75	164.00	35.60	65.00	94.50	97.25	52.35	10.00*	
6	Samastipur-Dharbanga	1974-75	37.16	4.70	12.00	0.50	0.81	0.85	0.01	
7	Guntur-Macherla	1974-75	190.22	8.10	28.29	4.35	1.77	1.78	0.51	
8	Moradabad-Ram Nagar	1974-75	77.50	7.50	10.89	0.56	0.90	0.98	1.00	
9	Kashipur-Lalkuan-New-Haldwani	1974-75	72.00	9.10	15.60	0.96	0.01	0.01	0.01	



# APPENDIX VIII

(Vide paragraph 117)

Anticipated cost and outlay expected on works in progress during 1982-83-1984-85

(In crores)

Particulars	Latest anticipated cost	Outlay expected to the end		Proposed outlay during		Balance to complete	
		1982-83	1983-84	1983-84	1984-85	1983-84	1984-85
1	2	3	4	5	6	7	8
<i>Central Railway</i>							
1. Apta-Rohs Construction of BG line	21.53	12.35	15.22	2.50	2.00	6.63	4.31
<i>Eastern Railway</i>							
2. Karaila to Jayant Construction of BG line	23.55	21.69	22.62	1.75	0.70	0.11	0.09
<i>Northern Railway</i>							
3. Shahdra-Saharanpur Construction of BG line	34.39	29.73	31.05	1.60	1.00	3.06	2.33
<i>North Eastern Railway</i>							
4. Restoration of MG line between Bagcha and Chitauri	10.00	4.17	2.07	0.05	0.01	5.78	7.02
<i>North Frontier Railway</i>							
5. Bongaigaon to Gauhati Conversion from MG to BG	71.00	53.35	64.95	10.00	4.50	2.65	1.55

*Southern Railway*

6. Construction of BG line from Karur-Dindigul-Tuticorin etc. .

42.86      3.72      6.12      1.75      4.06      37.39      32.47

*South Central Railway*

7. Bhadrachalam and Manu Construction of BG Line . . .

19.85      15.33      15.96      0.65      1.00      0.05      2.99

*South Eastern Railway*

8. BG line in the area served by former Howrah A Light Railway

90.43      8.18      9.77      2.00      2.00      0.54      18.66

*Western Railway*

9. MG line from Bhuj to Naliya with BG substructure . . .

22.00      3.25      5.53      5.00      4.70      13.75      11.77

## APPENDIX IX

[Vide paragraph 123]

*Statement showing salient points raised in the Memoranda received from various States Governments and Union Territory Administrations and comments of the Ministry of Railways (Railway Board) thereon*

Points in the Memorandum	Comments of the Ministry of Railways (Railway Board)
(1)	(2)
<b>ANDHRA PRADESH</b>	
<b>A. Construction of New Railway lines</b>	
(i) Bibinagar-Nadikude	In spite of severe constraint of resources, outlay upto the end of March, 1984 for this project is Rs. 22.58 crore and outlay during 1984-85 is Rs. 2.12 crore. The present progress of the work is 62%.
(ii) Bhadrachalam-Manuguru	This has been opened to goods traffic on 29-9-1983.
(iii) Telapur-Patanicheru	Due to severe constraint of resources, outlay upto March, 1984 is Rs. 1.81 crore. During 1984-85 Rs. 1 crore has been allocated for this work. The present progress of this work is 45%.
(iv) Matamarri-Jaggayyapet	The Cost of this work is now estimated at Rs. 18 crore. Outlay upto March 1984 is Rs. 3.92 crore and outlay during 1984-85 has been kept as Rs. 1.50 crore. The present progress is 36.5%.
(v) Manikgarh-Chandur	This is expected to open during the current year.
(vi) Sanathnagar-Moulali	The Cost of this work is now estimated as Rs. 5.2 crore. Outlay upto March, 1984 is Rs. 4.33 crore and outlay during 1984-85 is Rs. 1.35 crore. For want of dereservation of forest; land in Dullapali village, the army rifle range coming in the way of the alignment could not be shifted. Work in reach XI also could not be commenced as A.P. High Court gave judgement in favour of house owners in Fategarh village. These matters are being pursued with State Government.
(vii) Nizampatnam-Nidubrol connecting Nadikude	The survey for the new B.G. line from Nizampatnam to Nidubrol is in advance stage. The progress report will be available in a couple of months. After the survey report becomes available, the feasibility of construction of this line will be examined, taking into consideration the financial resources and clearance by the Planning Commission.
(viii) Bathli-Kalinga Patnam via Srikakulam	The total length of this line is about 120 Kms. The estimated cost of this line will be about Rs. 48 crores. Due to financial constraints, it's not possible even to continue the on-going project. As such, the consideration of this line will have to wait for future.

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(ix) Bellary-Raidurg and Chitradurg-Raidurg	Bellary-Raidurg rail line is being retained. In regard to Construction of new rail line from Chitradurg to Raidurg, this is an approved work at an estimated cost of Rs. 20.2 crores, outlay upto March '84 is Rs. 0.82 crore and outlay during 1984-85 has stepped upto Rs. 2 crores.
<b>B. Conversion of Lines</b>	
(i) Guntur-Macherla	Due to severe constraint of resources, funds could not be allotted for making adequate progress on this work. Priority for this work will be reviewed now that the new line from Bibinagar to Nadikude has made adequate progress.
(ii) Bangalore-Gooty	This work has been completed and opened to B.G. traffic.
(iii) Gooty-Dronachalam	A Preliminary Engineering-cum-Traffic Survey for conversion of a railway line from M.G. to B.G. between Guntur-Dronachalam and a separate line from Kurnool Town to Guntakal via Dronachalam has been sanctioned. The survey work has been completed and the report for the surveys is expected from the Railway. After the report is received, the feasibility of construction of the line will be examined, in consultation with Planning Commission subject to availability of resources.
(iv) Tirupathi-Katpadi	Survey for conversion of M.G. Section from Tirupathi to Pakala and parallel B.G. line from Pakala to Katpadi was sanctioned. Submission of the report is expected in a few months time. On availability of the report, the feasibility of construction of this line will be examined in consultation with the planning Commission subject to availability of resources.
<b>C. Doubling of Lines</b>	
(i) Sirpur Town, Wirur	The doubling work of track between Wirur to Sirpur and Town (24.25 Kms.) was included in 1979-80 at a cost of Rs. 4.11 crores. The present progress of this doubling is 75.5%. The progress is being accelerated to enable early completion of this doubling.
(ii) Manikgarh-Wirur and Sirpur town-Ranchi Road.	The doubling work of Section between Manikgarh-Wirur and Sirpur town-Ranchi Road was included in the Budget for 1981-82. The estimated cost is Rs. 20.10 crores. The present progress is 50 %. The progress is being accelerated to enable early completion of this work.
(iii) Pembarti-Pendial Secunderabad Kazipet Section	This doubling work was approved in 1981-82. The estimated cost is Rs. 800.07 lakhs. The total expenditure upto 31-3-1984 is Rs. 117.63 lakhs. The present progress is 12%. Outlay during 1984-85 is Rs. 45 lakhs.

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- (iv) Hyderabad-Telapur section This doubling work was approved in 1981-82. The estimated cost is Rs. 875.88 lakhs. The total expenditure upto 31-3-1984 is Rs. 115 lakhs. The present progress is 15%. Outlay during 1984-85 is Rs. 198 lakhs.

*D. Proposed New Railway Lines under survey*

- (i) Parvathipuram-Koraput A traffic-cum-preliminary engineering Survey was conducted by M/s RITES for a suitable link between Kotavalasa-Kirandul and Raipur-Vizianagram Sections. Two alternative alignments viz. (i) from Koraput to Rayagada and (ii) from Koraput to Parvathipuram were examined. Koraput-Rayagada alignment was considered more acceptable for reasons for cost, stability, recurring maintenance expenses and operational flexibility inspite of its being longer in length by about 45 Kms. The construction of Koraput-Rayagada BG rail (1.74 Kms.) was, therefore, approved in 1981-82 at a cost of Rs. 112.10 crores. The work on this project is in progress.
- (ii) Macherla-Raichur via Gadwal A Preliminary Engineering-Cum-Traffic Survey for construction of a new BG line from Macherla to Raichur via Gadwal was sanctioned by the Board in July, 1981 at an estimated cost of Rs. 17.52 lakhs. The total length of this new line is 260 Kms. The survey report is expected to be submitted in this year. The survey report on receipt will be examined.
- (iii) Krishna-Vikarabad The Preliminary Engineering-cum-Traffic Survey for construction of a new BG line from Krishna to Vikarabad was sanctioned by the Railway Board in October, 1981. The length of this line is 130 Kms. After the survey report is received by the year end, the feasibility of construction of the new line will be examined, subject to availability of resources and clearance by the Planning Commission.
- (iv) Guntur-Dronachallam The Preliminary Engineering-cum-Traffic Survey for conversion from metre Gauge to broad gauge between Guntur and Dronachallam and a separate parallel line from Kurnool town to Guntakal via Dronachallam was sanctioned in October, 1980. The survey work is nearing completion and after the survey report is received, the feasibility of constructing the line will be examined in the light of the financial resources and the clearance by the Planning Commission.
- (v) Patancheru connecting Sadasivpet road-Sangareddy-Jogipet, Medak, Siddipet, Karimnagar-Peddapally connecting Raichur Thermal Station via Vikarabad. A preliminary Engineering-cum-Traffic Survey was carried out by the South Central Railway during 1980-81 for construction of Railway line from Patancheru to Peddapalli via Sangareddy, Jogipet, Rangampet, Medak, Bubbak, Siddipet, Sircilla, Vimulavada and Karimnagar. The possibility of connecting Sangareddy to Sadasivpet Road was

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also investigated by the Survey Team. The report of the Survey revealed that the proposed line 300.58 Kms. in length, would cost Rs. 95.67 crores and the project would also not be financially viable. In view of the acute shortage of funds in the railway plan and a very heavy throw-forward expenditure on the sanctioned scheme, the project has been deferred for consideration at some future time.

(vi) **Nizamabad and Ramagundam via Jagtial.**

The re-appraisal survey for new BG line between Nizamabad Ramagundam via Jagtial was sanctioned by the Railway Board in October, 1981. The total length of the line is 155 Kms. The survey work is nearing completion and the report is expected soon. On receipt of the survey report the viability of the line will be examined taking into consideration the financial resources and clearance by the Planning Commission.

(vii) **Bellampalli-Darnakal Section and Kazipet-Secunderabad Wadi-Guntakal and Renigunta Section.**

A Preliminary Engineering-cum-Traffic Survey for line capacity works on Bellampalli-Darnakal Section and Kazipet-Secunderabad-Wadi Guntakal Renigunta section was carried out during 1980-81. On the basis of the report of this survey, the following doubling works have been sanctioned:—

1. Doubling of track between Pimbart and Pindiya (45.40 Kms.)
2. Hyderabad-Telapur (27.57 Kms.)
3. Wadi-Thangundi (29.32 Kms.)
4. Chegunta-Krishna (9.29 Kms.)
5. Gooty-Rayalacheruvu (23.65 Kms.)
6. Kondapuram and Muddanuru (23.65 Kms.)
7. Crossing stations between Rayalacheruvu and Juturu. The above doubling works are at various stages of progress.

(viii) **Nadikude-Sri Kalahasti/Gudur**

The Preliminary Engineering-cum-Traffic Survey for construction of a new BG line from Nadikude to Shri Kalahasti/Gudur was sanctioned by the Board in August 1981 at an estimated cost of Rs. 22.61 lakhs. The survey is in the advanced stage and the survey report will be available in a couple of months. After the survey report is received, the financial viability of this line will be examined in consultation with the Planning Commission.

(ix) **Nandiya-Yerraguntala**

The length of this line between Nandiya to Yerraguntala is about 127 Kms. The survey has been completed and the project report was received in the Board's office. The estimated cost of construction of this line is Rs. 49.48 crores. The line is not financially viable. Due to severe constraint of resources, the proposed line would have to wait for consideration.



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## ASSAM

*Extension of Lines*

- (i) Gauhati-Dibrugarh line . A Preliminary Engineering-cum-Traffic Survey for extension of BG line from Chaparmukh to Dibrugarh about 450 Kms. following a new alignment touching the important towns in Assam was sponsored by the North Eastern Council at their cost and they have accorded their administrative approval as well as sanction to undertake this survey as a 'Deposit Work', at an estimated cost of Rs. 47.89 lakhs.

Due to limited financial resources, which are not adequate even to progress the schemes already in hand, it may not be possible for the Railways to undertake the construction of this major project in the 6th Plan. However, this project will be given due consideration after the survey is completed and project report is available.

- (ii) Jogighopa-Gauhati line . Construction of a BG rail line from Jogighopa to Gauhati via Panchratnaghat has since been approved, along with construction of a rail-cum-road bridge at Jogighopa. Final location survey for the proposed railway line has been taken in hand.

## BIHAR

*A. Constructions of New Railway Lines and Expansion of Existing Lines*

- (i) Mondar Hill to Saithia via Dumra . In view of the severe constraint on funds, it will not be possible to consider this proposal at present.
- (ii) Ranchi to Giridih via Hazaribagh . A decision on the project will be taken as soon as the survey is completed and report examined, subject to availability of funds.
- (iii) Pipradih to Bhavnathpur and its further extension to connect Garhwa Road-Chopar line . Re-appraisal of the earlier traffic survey for a BG line on Dehri-on-Sone-Amgara-Banjari-Pipradih has been completed and the survey report is under examination. There is no proposal to extend the line up to Bhavnathpur. This suggestion can be examined after the survey report up to Pipradih has been examined and decision taken.
- (iv) Nirmali to Saraigarh . To Preliminary Engineering-cum-Traffic survey have been carried out during 1972 and 1977 for restoration of Nirmali-Saraigarh Railway line. As per the latest survey report, received in 1977, three possible alternatives were investigated for construction of a bridge over river Kosi. All these proposals were found to be financially unremunerative. The project was, therefore, not pursued.
- (v) Rajgir to Gaya . Survey carried out for laying a broad gauge line from Rajgir to Gaya in 1976-77 has revealed that the project will not be a viable one. It is, therefore, not proposed to take up this proposal for consideration at present. According to a survey carried out in 1975, this proposal was found to be unremunerative.

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| (vi) Ranchi to Korba via Lohardaga                                    | In view of severe constraint of resources, it has not been possible to process this matter further.  |
| (vii) Construction of a parallel B.G. line between Hajipur & Bachwara | A survey has been carried out for laying a parallel B.G. line between Hajipur and Bachwara. The question of taking up construction of this project will be considered subject to clearance and allotment of funds by the Planning Commission.  |
| (viii) Forbesganj-Thakurganj via Bahadurganj                          | The new line from Forbesganj to Thakurganj is estimated to cost Rs. 15 crores. Owing to paucity of funds the proposal has not been surveyed so far. It has to await better times for consideration.  |
| (ix) Deoghar to Dumka   | Preliminary Engineering-cum-Traffic Survey for a new BG line from Deoghar to Dumka via Basukinath has been completed and the survey report is under examination. A decision on the project will be taken as soon as the survey report is examined and decision taken subject to availability of funds. It will also require clearance of the Planning Commission.  |
| (x) Darbhanga to Muzaffarpur  | A survey was carried out in 1979 for construction of a BG line from Muzaffarpur to Darbhanga via Dharwara, Sirwhara, Atalbah and Benibagh. The survey report indicated that the proposed line was estimated to cost about Rs. 12.46 crores. The present day cost would be Rs. 17 crores. Since the project was found to be yielding a negative return the same was not pursued.                          |
| (xi) Gaya to Tori via Dohi-Chatra-Balumath                            | This proposal has not been considered or surveyed so far. It is not proposed to take up this line for consideration in view of the severe constraint on resources.   |
| (xii) Mehshi to Saharsa   | A Preliminary Engineering-cum-Traffic Survey was carried out during 1977 for construction of a M.G. line from Saharsa to Tarapith Maheshi. As per the survey report, this line, 14.75 Kms. in length was estimated to cost Rs. 75.87 lakhs. The present day cost of this project would be about Rs. 2.50 crores. Since the project was found to be yielding a negative return, the same was not pursued. |
| (xiii) Dauram-Madhepura to Singneswarasthan                           | A Preliminary Engineering-cum-Traffic Survey has been carried out for construction of this line. The project was found to be financially unremunerative as per the project report. Since the area is well served by a good net work of roads, the survey team has not recommended the construction of this line. The proposal is therefore not being pursued.  |
| (xiv) Muzaffarpur to Sitamarhi  | A Preliminary Engineering-cum-Traffic Survey has been included in the budget for 1981-82. The survey is in progress. The matter would be examined on   |
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	receipt of the survey report. The project would be undertaken for construction subject to clearance and allotment of funds by the Planning Commission.
(xv) Banmankhi to Narpatganj .	No survey has been carried out so far for construction of a direct line from Banmankhi to Narpatganj. Railways have been allotted limited funds for construction of new lines, which are barely sufficient for the ongoing schemes. The proposal has, therefore, to await better times.
(xvi) Sultanganj to Deoghar .	There is no proposal at present under consideration for taking up this project nor has any survey been done in the past. In view of the severe constraints on funds, it will not be possible to take up this proposal at present.
(xvii) Pirpainty to Dumka via Godda	No proposal is under consideration for this line. It will not be possible to take up this proposal at present due to severe constraint on resources.
(xviii) Bihariganj to Kursela .	No survey has so far been carried out for the suggested railway line. Railways have been allotted limited funds for construction of new lines. These are barely sufficient for the ongoing schemes. The proposal has to await better times.
(xix) Laukaha to Sitamarhi via Jainagar	Due to paucity of funds, the proposal has to await better times for consideration.
(xx) Lalitgram to Birpur .	A survey was undertaken for restoration of Nirmali-Saraigarh Railway line in 1976-77. As a part of this survey, the construction of a new Metre Gauge line from Lalitgram to Bhimnagar via Birpur was also examined. Since the project was not found to be financially viable, the same was not pursued.
(xxi) Simri-Baktiarpur to Bihariganj	A survey was carried out for construction of a new Metre Gauge line from Bihariganj to Simri-Bhaktiarpur during 1974-75. As per the survey report, this line, 54.5 Kms. in length was estimated to cost Rs. 6.44 crores and was found to be yielding at very low return. The project was therefore not pursued.

#### *B. Conversion of Narrow/Metre Gauge Sections into Broad Gauge Section*

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| (i) Darbhanga-Nirmali .    | Survey report received for conversion of Darbhanga-Jayanagar indicated that this project will not be financially viable and was, therefore, not processed further. |
| (ii) Darbhanga-Jayanagar . | A survey has been carried out for the suggested conversion from Metre Gauge to Broad Gauge. N.E. Railway's survey report is under examination.                     |
| (iii) Katihar-Jogbani .    | Reconnaissance Engineering. Survey report for Katihar-Jogbani conversion has been received recently and is under examination.                                      |

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| (iv) Saharsa-Jogbani                                       | No survey has so far been carried out for conversion of this line from M.G. to B.G. Railways have been allotted limited funds for gauge conversion. These are barely sufficient for the ongoing schemes. This proposal has to await better times for consideration.  |
| (v) Bettiah-Muzaffarpur via Motihari                       | An engineering-cum-traffic reappraisal has been carried out for conversion of Muzaffarpur-Raxaul section from Metre Gauge to Broad Gauge. The project has not been found to be financially viable and is, therefore, not being pursued further.  |
| (vi) Bathnaha-Birpur                                       | A survey has already been carried out for replacement of Kosi project's Narrow Gauge line from Bhimnagar to Bathnaha into Metre Gauge. The present day cost would be Rs. 8 crores. Since the area is served by a good network of roads and the suggested M.G. line would be yielding a low return, the matter was not pursued further. |
| (vii) Arrah-Sasaram.                                       | Preliminary engineering-cum-traffic survey for a B.G line between Arrah and Sasaram (165 kms) has been completed. The report is under examination. A decision will be taken after the survey is completed and report examined, subject to availability of funds.   |
| (viii) Ranchi-Lohrdaga and its further extension upto Tari | Updating of the preliminary engineering-cum-traffic survey of 1975 is in a hand for the conversion of Ranchi Lohardaga narrow gauge line with broad gauge and its extension to Tari. After receipt of the survey report the matter will be considered with due regard to viability of the proposal and availability of funds.          |

#### C. Doubling/Reconstruction of Railway Lines

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| (i) Patna-Gaya                       | A survey for the augmentation of line capacity in the Patna area has been approved and it is in progress. The requirements of doubling of the section will also be given the due consideration during the course of the survey. A decision will be taken after the survey has been carried out and the survey report examined, subject to availability of funds. |
| (ii) Kiul-Sahebganj-Barharwa Section | Doubling between Kajra-Jamalpur and Ratanpur Sultanganj on the Kiul-Bhagalpur section is an approved work and is already in progress. Doubling of the remaining section will be given due consideration, if warranted on traffic considerations, after the above work is completed.  |

#### D. Replacement of old Lines

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| (i) Sahibganj loop line and Howrah-Mughalsarai | The Sahibganj loop line which was built nearly a century ago is being maintained in a satisfactory condition to carry the passenger and goods traffic offering there. For instance, the tracks on this route have been generally renewed in late fifties and early sixties. About 8 kms of renewals are sanctioned in this section. |
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As regards Howrah-Mughalsarai main line, the oldest portion of track is of 1944-45 but large length of track has been renewed in 60s and 70s. A number of works for renewal of track on this section are already sanctioned commensurate with the availability of funds.

(ii) Mansi to Saharsa

Most of the track in this section has been relaid in 1967-68. The track consists of 3-rail welded panels the sleepers are of CST-9 and track structure is good. Renewal will be planned when it becomes due.

### DELHI ADMINISTRATION

#### *A. Expansion of Route Mileage*

Delhi—Rewari and Delhi—Amritsar

The existing railway lines are considered adequate for the traffic required to be moved. These proposals can be considered at the appropriate time subject to availability of adequate resources.

#### *B. Conversion of Existing lines*

Delhi—Rewari

Delhi-Ahmedabad conversion project from MG to BG is an approved work awaiting Planning Commission's clearance. Delhi—Rewari conversion will be covered as and when this project is taken up for construction. However, as a first step, the work of providing additional through put and terminal facilities including doubling between Garhi Harsaru and Khalilpur for movement of addition traffic (Phase I) at an estimated cost of Rs. 5 crores is in progress now. The scope of the work is being reviewed.

### GOA, DAMAN & DIU

#### *Conversion from M. G. to B.G.*

Mormugao—Londa—Miraj—Hospet Meter gaugeline

A survey on the South Central Railway for ascertaining the engineering feasibility as well as the traffic justification and economic viability of converting the metre gauge sections into broad gauge has been completed recently and the survey report is under examination.

In view of the present resource constraints, even the existing conversion projects are not proceeding fast enough, and the outlay provided by the Planning Commission under the head 'Traffic Facilities' has been spread out over scores of gauge conversion projects at the cost of other traffic facility works without any immediate advantage to transport capacity.

Currently, therefore, the Railways are concentrating on completing a few of the gauge conversion projects already in progress rather than spread out the resources on all the various gauge conversion projects.

### GUJARAT

#### *A. Proposal for Construction of the Following New lines*

(i) Bhavnagar—Tarapur B.G. Line

A survey was carried out in 1977 for the construction of a B. G. line from Bhavnagar to Tarapur when it was

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revealed that this 150 Kms long line will cost about Rs. 34 crores, at the then prevailing prices and will not be financially viable, even with an inflation of 100% in goods freight rates. It has, therefore, not been possible to take up the construction of this railway line.

- (ii) Gandhidham--Lakhpur via  
Mandvi Mundra, 284 Kms.  
(Approx. Cost Rs. 70 crores)

Preliminary engineering-cum-traffic survey for conversion of Gandhidham-Bhuj section into BG and construction of a BG rail link from Bhuj to Lakhpur which was carried out some time ago, revealed that the project will not be a viable one. A survey is now in hand for updating the earlier findings. The proposal will be examined in the light of the survey findings as soon as the same is completed and a decision will be taken on the proposal subject to feasibility and financial viability.

- (iii) Rajkot-Jasdan MG line

- (iv) Saradia--Kutiyana--Kat-  
kola MG line

- (v) Dahod--Jhalod Banswara BG  
line

- (vi) Keshod--Mangrol MG line

- (vii) Rajula--Jafrabad MG line

- (viii) Udhna--Magdalla BG line

- (ix) Construction of Kosa Road-  
Bhildi (missing link)

- (x) Dahod to Jamarkota via  
Jhalod

- (xi) Chuchurpara--Rajpipla

There is no proposal at present under consideration.

The above new lines cannot be taken up due to severe constraints on the availability of funds for various railway projects and this position has been continuing for some time now. The funds that are made available for this purpose are inadequate even to ensure satisfactory progress on the projects which are already in hand. In these circumstances, our efforts are directed towards progressing the ongoing projects expeditiously towards their completion, so that benefits start flowing to the public.

In view of the extreme difficult resources position it will not be possible to take up these proposals for consideration at present.

- (xii) Ahmedabad Circular Rail-  
way line (Metropolitan Pro-  
ject)

The Ahmedabad Urban Development Authority and Ahmedabad Municipal Corporation had been contemplating to conduct techno-economic feasibility survey for commuter rail services for Ahmedabad Area—which had crossed two million mark. At the instance of the State Government, the Ministry of Railways have authorised the MTP (Railways) Bombay to undertake the feasibility study for a Metropolitan Commuter net work for Ahmedabad area as a deposit work. The length and the time to be taken for construction of the rapid transit line will be known only after the feasibility study to be conducted by MTP (Railways) is over.

- (xiii) Ahmedabad--Jhalod--Udaipur  
Dahod Railway Line (410  
kms)

Ahmedabad and Udaipur are already connected by a BG Railway Line. It has not been possible to undertake construction of another line in this area via Jhalod, due to the existing difficult financial position.

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*B. Conversion*

- (1) Ghota Udaipur—Pratapnagar The State Government of Gujarat have been pressing for the conversion of the above M. G. Railway lines in view of traffic to be moved to the proposed Nawagam Dam. The State Government were advised that as the conversion of the above mentioned MG line is meant primarily to serve the Narmada project, the survey for the MG line could undertaken by the Railway Administration as a deposit work chargeable to the State Government. The State Government have agreed to bear the survey charges, and accordingly, have deposited the amount for the conversion of Ankleshwar—Rajpipla NG section into BG and extension from Rajpipla to Gora and conversion of Pratapnagar—Ghotaudiapur NG Section into BMG.

The survey has been completed and the report has been sent to the State Government.

- (4) Jhagadia—Netrag (NG to BG) These proposals are short railway lines carrying very little traffic and the conversion of these lines will not be a viable proposition. The existing constraint on the resources does not permit taking up these lines for consideration.
- (5) Bhavnagar—Mahuva (NG to MG)
- (6) Billimora—Waghai (NG to BG)
- (7) Ahmedabad—Delhi (MG to BG)

This is a major project involving conversion of 925 Kms. of MG line into BG and will cost about Rs. 300 crores at the present day price level. The project was included in the Budget for 1977-78 but the Planning Commission's clearance has not been received so far. A beginning on this project can be made only when the same is cleared by the Planning Commission and necessary funds allotted for the purpose.

**HARYANA***A. Construction of New Lines*

- (i) Linking of Jhajjar with Rohtak by rail. No investigation for this line has been made in the recent past. Due to severe financial constraints and heavy commitments already on hand it will not be possible to accede to this request.
- (ii) Abohar, Sirsa, Tohana Rail-way line. No investigations have been made for the Hissar-Fatehabad-Sirsa-Abohar link in the recent past.

Due to severe constraints and heavy commitments already on hand, it will not be possible to consider this proposal at present.

- (iii) Construction of a new rail-way line between Delhi and Alwar Via Firozpur-Jhirka The proposal for a new BG line from Palwal to Firozpur-Jhirka and Alwar has not been surveyed earlier. The allotment of funds for construction of new lines during the VI Plan is too meagre and will not be sufficient even for the on-going schemes. In view of the severe financial constraints, it will be difficult to consider this scheme at present.

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**B. Conversion of Line**

Conversion of Gurgaon Railway line to Broad Gauge.

A proposal, based on the Regional plan of the National capital region prepared by the Town and Country Planning Organisation, Govt. of India, was received from the Govt. of Haryana. The proposal was for conducting a survey or linking up of Palwal-Sohna-Rewari-Rohtak and Panipat and conversion of Delhi-Rewari from MG to BG. This proposal was duly examined in the Railway Ministry and the position is as indicated below.

The needs of Delhi urban region have been catered to by doubling of tracks, construction of avoiding lines and electrification of the present Electric multiple unit services also are being introduced and gradually the corridors fanning out from Delhi and New Delhi will be covered subject to availability of adequate funds and rolling stock.

**HIMACHAL PRADESH\*****Conversion of Broad Gauge**

- (i) Broad Gauge line from Kalka to Parwanoo Kalka-Parwanoo rail link work has been approved in 1982-83.
- (ii) Jagadhri—Paonta—Rajban rail link The surveys for line Jagadhri—Paonta—Rajban is well in progress. Further consideration to this project will be given after the survey reports have been examined and subject to availability of resources and clearance by the Planning Commission.
- (iii) Nangal—Talwara BG line Construction of a new broad gauge line from Nangal Dam to Talwara (83.74 Kms.) and taking over of the railway sidings from Mukerian to Talwara (29.16 Kms) has been approved in 1981-82. The work is in progress. Present progress is 2.50%. Estimated cost of the work is Rs. 33.45 crores. Expenditure upto 31-3-84 is Rs. 220 lakhs and outlay for 1984-85 is Rs. 200 lakhs.

**JAMMU AND KASHMIR****Construction of BG Line from Jammu to Udhampur**

Work of construction of a new BG line from Jammu Tawi to Udhampur has been approved in 1981-82. The work is in progress.

**KARNATAKA****A. Construction of New Lines**

- (1) Hubli—Karwar Railway line. A traffic appreciation survey was conducted by the Southern Railway in the year 1964 regarding the feasibility of constructing a new line between Hubli and Karwar covering the following:
  - (i) A new railway line connecting Goa and Sadasivagad, a town on the north bank of Kalinadi creek near Karwar Port;

\*The following new railway lines for Himachal Pradesh have also been proposed for the Seventh Five Year Plan :

- (1) Behrampur-Bilaspur-Rampur/Mandi Railway line (Preliminary survey has been completed as Deposit work at the initiative of H.P. Government (B.G. Line)
- (2) Hoshiarpur-Amb-Nandaun-Hamirpur-Bilaspur (B.G. Railway line also proposed by Punjab Govt. as some portion from Hoshiarpur to Amb falls within Punjab State).
- (3) Jwalamukhi Road/Tripal-Jwalamukhi Temple-Nadaun B.G. Line to connect the famous temple of Goddess Durga at Jwalamukhi with the Union Capital.
- (4) Mandi-Jogindernagar Nalagarh N.G. Line.
- (5) Ghanauli-Nalagarh B.G. Line  
(The old track was dismantled and as such it is only a restoration work).
- (6) Una-Jaigon B.G. Line  
(Also supported by Punjab Government).



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(ii) Linking Hubli with Dandeli *via* Karwar Port with a broad gauge line.

This survey covered a distance of 176 Kms. and the cost was worked out to Rs. 19 crores yielding a return of 5% subsequently, the Railway Board ordered for a fresh Engineering-*cum*-traffic survey for construction of a new broad gauge line from Hubli to Karwar in 1971 at a cost of Rs. 9,81.445/-. Accordingly, the survey was completed in 1973. As per this survey the length of the line would be 191 Kms. and the cost of construction would be Rs. 35 crores. The Railway Board advised the Railway in June, 1973 that unless a firm decision to export a minimum of 5 million tonnes of iron ore through Karwar Port was taken by the Ministry of Steel, the project could not be financially justified.

Later, in view of the various public representations from various sources, the Railway Board again sanctioned a traffic reappraisal survey in September, 1976. The survey work was taken up during April, 1977 and completed in September, in the same year. The railway submitted the report in March, 1978. According to this second report, the cost was updated to Rs. 57.03 crores with an anticipated return of 4.6% (4.6% with land free from Karnataka Govt. and 4.9% with land and wooden sleepers free from Karnataka Govt.). The railway suggested in report that since MMTG would have substantial savings in transport cost, if the above line was constructed, they could be asked to participate in the Capital cost. The project could not be pursued due to difficult ways and means position.

Due to persistent public demand, the updating of Preliminary Engineering-*cum*-traffic survey for a new BG line between Hubli and Karwar has been approved during 1983-84 and the work is in progress. On receipt and examination of the re-appraisal survey Report, a decision regarding construction of the line will be taken, subject to availability of resources and clearance by the Planning Commission.

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|---|--|
| <p>(2) Chamarajanagar—Sathyamangalam-Coimbatore Railway line</p>                          | <p>A survey for laying a new line from Chamarajanagar to Sathyamangalam is in progress. Further action can be taken after receipt of the survey report and its examination with due regard to cost, financial viability and availability of funds.</p>                 |
| <p>(3) Chitradurg—Rayadurg line</p>   | <p>This work has been approved and construction work is in progress.</p>   |
| <p>(4) Chamarajanagar—Maddur <i>via</i> Yalandur in Kollegal Taluk</p>                    | <p>In view of the scarcity of resources, these proposals will have to wait for better times.</p>   |
| <p>(5) Mysore to Bellary <i>via</i> Nagamangala, Kadaba, Sira, Hiriyur and Challakere</p> |  |
| <p>(6) West coast railway connecting Bombay with Mangalore.</p>                           | <p>Bombay to Mangalore is 993.24 Kms. Out of this Bombay to Apta-Pen has already been constructed. Work on Pen-Rohasection (416.5 Kms.) is in progress. However due to constraint on resources as at present, there is no proposal to extend the line beyond Roha.</p> |

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*B. Conversions*

- (1) Bangalore—Mysore . . . Conversion work of this line is in progress. The work is expected to cost around Rs. 20 crores. Every effort is being made to complete the work expeditiously subject to availability of resources.
- (2) Bangalore—Miraj and branch lines A survey for conversion of the Bangalore—Miraj and other connected lines to B. G. has been completed and survey report is being examined.
- (3) Bangalore—Guntakal . . . This conversion has been completed and commissioned.

**KERALA***A. Construction of New Lines*

- (1) Alleppey—Kayankulam BG line Construction of this line has been approved and will be progressed according to availability of funds.
- (2) Cochin—Madurai line . . . There is already a metre gauge line linking Madurai with Bodinayakkanur (90 Kms.). The project, therefore, involves construction of a new railway line linking Bodinayakkanur and Cochin. The proposed line will have to negotiate the difficult western ghats over a considerable length involving heavy investment and will have limited capacity on account of steep gradients and sharp curves. However a survey for conversion of Madurai-Bodinayakkanur section from MG to BG and construction of a new BG line between Bodinayakkanur to Cochin is in progress. A final decision will be taken after receipt of the survey report and its examination, re: cost, financial viability & availability of funds.

*B. Doubling of Lines*

- (1) Ernakulam—Quilon—Trivandrum line The capacity on this section can be increased by provision of other cheaper inputs like provision of additional loops etc. The following works are in progress on this section.
- a) Conversion of Ochira into crossing station.
  - b) Chonganur—Provision of second signalled loop.
  - c) Perinad—Provision of second signalled loop.
  - d) Vailom Road—Conversion into crossing station.
- (2) Ernakulam Junction—Trivandrum section Provision of additional loop to hold 70 vehicles with simultaneous reception facilities at (i) Tiruvalla (ii) Varakala and (iii) Karunagapalli.

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On completion of these works, the capacity on the section is expected to increase and is considered adequate to meet the traffic requirements for the immediate future.

- (3) Guruvayur—Kuttipuram Rly. line The survey report for this line has just been received and is under scrutiny. The question of taking up this work will be considered only after the clearance of the Planning Commission is received and necessary funds allotted.
- (4) Tellicherry—Mysore route The investigations carried out for laying a MG railway line from Tellicherry to Mysore in 1959-60 revealed that this line was not economically viable. Present day cost of construction would be above Rs. 60 crores.

In view of the severe limitations on the availability of funds for new line projects, it will not be possible to take up this for consideration in the near future.

- (5) Kottayam—Madurai line The project line will reverse the western ghats and would be about 160 Km. long and would cost about Rs. 80 crores. Because of high cost it is not expected to be economically viable.

It will not be possible to undertake this project for consideration at present due to severe limitations of resources.

### MADHYA PRADESH

#### A. Conversion of Lines from M.G. to B.G.

- (1) Raipur-Dhamtari NG line and extension of BG line from Dhamtari-Dalli-Rajhara and Jagdalpur The question of providing a new link from Dalli-Rajhara to Jagdalpur which would pass through the backward areas inhabited by "Adivasis" and thus pave the way for industrial development of the area has also been under consideration. A survey was conducted during 1973-1976. The internal rate of return by DCF method was found to be 7.5%. However, with the pegging of the Railways' 6th Five Year Plan at Rs. 5100 crores, considerable pruning of the proposals for new lines/conversions became necessary and this work could not be included in the plan frame.
- (2) Jabalpur-Gondia NG line into BG line A preliminary engineering-con-traffic survey was conducted for the conversion of Jabalpur-Gondia line, along with its branch from Balaghat to Katangi, into B.G. The proposition was found to be highly unremunerative. Besides the existing narrow gauge line, there is a good network of roads in the region. Taking these into consideration, it was felt that conversion of this narrow gauge line is not an immediate necessity.
- (3) Chhindwara-Parasin NG line into BG line The survey for conversion of Chhindwara-Parasin NG line into BG has been completed. Planning Commission has been approached for clearance. Further action will be taken after the project is cleared by the Planning Commission and funds are made available.

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- (4) Jabalpur-Nainpur-Seoni-Chhindwara-Nagpur to BG line

Pursuant to the recommendations of the Uneconomic Branch Lines to Committee, surveys were carried out for conversion of the following lines.

- (a) Parasia-Chhindwara-Seoni-Nainpur-Mandla Fort.
- (b) Jabalpur - Nainpur - Balaghat - Gondia and Balaghat-Katang; and
- (c) Chandrapur-Nagpur.

The projects were found to be highly capital-intensive with very poor return. The conversion was not justified on operational consideration either.

#### B. Construction of New Lines

- (1) Lalitpur-Singrauli via Tikamgarh, Chhatarpur, Khajuraho, Panna, Satna, Rewa and Sidhi.

A preliminary Engineering-cum-traffic survey for construction of a railway line from Lalitpur to Singrauli via Tikamgarh, Chhatarpur-Khajuraho-Satna-Rewa was carried out in 1980-81. Two alternative alignments were examined. Survey, however, revealed that none of the alternatives would be financially viable. Later, a re-appraisal of the earlier survey specifically for the section from Satna to Baghwar via Rewa was carried out. Based on the results of the re-appraisal a Final Location Engineering-cum-Traffic Survey for construction of a new line from Satna to Beohari via Rewa, Goidgarh and Baghwar has been included in the Budget for 1984-85. The decision regarding construction of the line will be taken on completion of the Final Location Survey, and examination of the Survey Report, in consultation with the Planning Commission.

- (2) Guna-Etawah via Sheopuri, Gwalior and Bhind

A survey for construction of a new BG line from Guna to Etawah via Shivpuri, Gwalior and Bhind is in progress.

The proposal will be examined in depth after the survey has been completed, and will be taken up for construction subject to financial viability, availability of resources and clearances from Planning Commission.

- (3) Bishrampur-Barwadih new BG line

Survey is in progress for a new BG line from Bishrampur to Barwadih passing through Ambikapur. After receipt of the report, a final view will be taken with due regard to technical feasibility, financial viability and availability of funds.

- (4) Indore-Mhow line

Preliminary engineering-cum-traffic survey for a new line from Dohad to Indore with mixed gauge from Indore to Mhow is in progress. A decision will be taken after the survey has been carried out, and report examined, subject to availability of fund.

- (5) Bhat para-Akaltara in Arjuni and Chilhati

Severe constraint on resources does not permit such new schemes being taken up. In this particular case a large cement project is coming up in the Private Sector and as requested by them a survey

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is being undertaken at their cost for the provision of a private siding from Bhatapara. Since this is a question of facility required by one industrial unit for this own use, this has to be constructed as a private siding. The railways will not be in a position to invest capital on constructing this link as a railway line. The cases of Wani-Chanaka and Manickgarh-Chandur lines cited by the State Government are not analogous to this case and the position has been explained in detail to the State Government.

### ORISSA

#### A. Expansion of Route Kilometrage and construction of New Lines

- (1) Jakhapura-Banspani line . Initially the Planning Commission cleared the first phase from Jakhapura to Daitari. This section was completed and has been opened to traffic.

Subsequently the Planning Commission accorded clearance for the second phase from Daitari to Keorjargarh. But, meanwhile it was seen that the recently opened section (Khapura-Daitari) was not being patronised by the Orissa Mining Corporation for movement of ore for export through Paradeep Port and that the bulk of export ore from this region is still moving by road. It was, therefore, decided by this Ministry and the Planning Commission that work on the second phase should not be started till a reasonable quantum of ore has started moving on the newly-laid line. The Government of Orissa have also been advised of the position, both by this Ministry and by the Planning Commission.

- (2) Talcher-Sambalpru line . Construction of this new line has been approved recently in Budget of 1984-85 and work is being commenced.

- (3) Rayagada-Korapur line . Construction of Koraput-Rayagada Broad Gauge line (174 kms.) was approved in 1981-82 at an anticipated cost of Rs. 112.10 crores. Work on the first phase of this project regarding Koraput-Machiligade (19.65 kms.) is expected to be completed by June, 1985. This will serve the Aluminium plant at Damanjodi.

#### B. Surveys for New lines

- (1) Khurda Road-Bolangir-Phulbanilink \* . Survey for the new Broad Gauge line connecting Khurda Road Phulbani-Bolangir (290 kms.) is in progress.

- (2) Ambaguda-Kesinga link . The main purpose of the suggested line is to have a link between the Krandul Kottavalasa and Raipur-Vizianagarm main lines. Such a link is now being provided by construction of a line from Loraput to Rayagada which is essential for the setting up of the Alumina complex at Damanjodi. In view of this and the tight resources position there is no proposal at present for another link from Ambaguda to Kesinga.

\*The following has been proposed for the Seventh Plan :

"As this link connects coastal zone of Orissa with the Western part of the State and connects fully inhabited backward tribal districts of the State this link should be given priority in the Seventh Plan for construction".

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- (3) Talcher-Bimalagarh . A survey made in 1969-70 for this 136 kms link showed that the proposal was very unremunerative. The present day cost of construction would be about Rs. 35 crores.

In view of the tight resources position, it will not be possible to consider a fresh survey for this line at present.

- (4) Gopalpur-Berhampur . This line about 10 kms. long has not been surveyed so far. It will cost about Rs. 2.5 crores. Due to scarcity of resources it is not possible to take up the project at present.

- (5) Jeypore-Malkanagiri . No survey has been carried out for this line in the past. The Railway have now on hand 58 new line projects estimated to cost about Rs. 996 crores at the present rates. The requirement of funds to complete these on-going schemes beyond 31-3-1982 is about Rs. 732 crores, and an allocation of Rs. 42 crores has been made for New Lines in 1982-83 which is totally inadequate.

Under the circumstances, there is very little possibility of new schemes being taken up in Sixth Plan period.

#### *C. Conversion of existing Lines.*

- (1) Rupsa-Bangiriposi n.g. line . A reconnaissance Engineering-cum-tri-ffic survey for conversion of the existing Rupsa-Bangiriposi Narrow Gauge line into B.G. and its extension upto a convenient point on the existing B.G. system has been completed.

Due to unremunerative nature of the project and acute shortage of funds it has not been pursued further.

- (2) Gunapur-Naupada . A survey had been carried out during the pre-independence days for conversion of Naupada-Parlakimidi-Gunapur N.G. line into B.G., when the line belonged to a private railway company. However, after the acquisition of the railway line by the Government in 1949, this matter was not pursued further.

At present, the railways have several on-going schemes for new lines and gauge conversions and the availability of resources is hardly adequate to finance these schemes. The resource position does not permit any new schemes being taken up now.

#### **PONDICHERRY**

##### *Construction of New Lines*

- (1) Pondicherry-Cuddalore-Tindivanam . Pondicherry is connected with Madras, Tindivanam, Cuddalore etc. with good network of roads. Quite a good number of buses ply to meet the traffic requirements.
- (2) Trangubar (Porayar)-Nagapattinam via Karaikal . No investigations for construction of a railway line from Pondicherry to Cuddalore or Pondicherry to Tindivanam have been conducted in the recent past.

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- (3) Line connecting both the East Coast & West Coast.

The distance from Tindivanam to Guddalore via Pondicherry is about 60 Km. and the cost of construction of a MG line would be around Rs. 10 crores. Similarly, the distance from Tranqueber to Neagore will be around 25 km. and the cost of construction of a MG line would be about Rs. 3 crores. In view of the constraints in resources position, there is no proposal for undertaking construction of these lines at present.

The important towns in the coastal area from east to west are well connected with railway lines. As explained above, in view of the constraints in resources position, there is no proposal to link all the towns in the coastal area by a circular railway at present.

### PUNJAB

#### *New Rail Links*

- (1) Chandigarh-Morinda-Ludhiana

A survey was undertaken as deposit work for the Punjab Government in 1972 and the survey report revealed that this link (95 kms) would cost about Rs. 19.6 crores for construction and the financial return was very low.

- (2) Chandigarh-Rajpura

A survey was conducted as deposit work for Punjab Government in 1979 for this rail link (40 kms). The economic appraisal showed that the return would be very low.

- (3) Hoshiarpur-Garhshankar-Ropar-Kurali-Chandigarh

A railway line already exists from Ropar to Sirhind via Kurali and Morinda. Thus the missing link will be Hoshiarpur to Ropar. No investigation have been carried out in the recent past for this rail link.

- (4) Faridkot-Zira-Makhu-Taran Tavn

No investigations have been carried out for this rail link. On a rough estimation the line will be about 100 Kms. long.

- (5) Beas-Goindwal Sahib Patti

A survey was carried out for a rail link from Beas to Goindwal in 1981 and as per the survey report the length of this rail link would be 27 kms. costing Rs. 6.5 crores for construction. The rate of financial return was poor. The project was not justified on financial considerations and on operational grounds.

Due to acute shortage of funds during the Sixth Plan period it will be difficult to accede to the request for the above new railway lines.

- (6) Re:Nangal Dam-Talwara Rail link

Construction of a new Broad Gauge line from Nangal Dam to Talwara and taking over the railway siding from Mukerian to Talwara has been included in the supplementary budget for 1981-82.

The work is in progress. Present progress of the work is 2.5%. Estimated cost of the work is Rs. 33.45 crore. Expenditure upto 31-3-1984 is Rs. 220 lakhs and outlay for 1984-85 is Rs. 200 lakhs.

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## RAJASTHAN

### A. Conversion of Metre Gauge to Broad Gauge

- (1) Delhi-Ahmedabad . . . The project for conversion of Delhi-Ahmedabad (925 kms) metre gauge line via Alwar-Jaipur into broad gauge is an approved work.  
The project was included in the Budget for 1977-78, but the Planning Commission's clearance has not been received so far.
- (2) Sawai Madhopur-Jaipur . . . The present resources constraint does not permit taking up this B.G. line project.

### B. Construction of New B.G. Lines

- (1) Kota-Chittorgarh . . . Construction of a broad gauge railway line from Kota to Chittorgarh via Bundi and onwards to Neemuch (242 kms.) is an approved work and the work is already in progress.
- (2) Suratgarh-Jaisalmer . . . Work, for (i) construction of a parallel BG line from Suratgarh to Sarupsar and conversion of Sarupsar-Anupgarh MG section into BG and (ii) Conversion of Suratgarh-Bikaner MG section into BG, are in progress now.
- (3) Tonk to Devali, Shahpur-Bhilwara-Chittorgarh. . . A preliminary engineering-traffic survey for a railway line (Metre gauge) between Nathdwara to Toda Rai Singh via Bhilwara and Kekri has been included in Budget for 1981-82, and survey is in progress. The proposal to link Tonk will be considered after the above survey is completed and a decision taken.

## TAMIL NADU

### A. Construction of New Lines

The distance between different points is indicated against each line

(i) From Chamaraj Nagar to Erode . . . . .	134 kms.
(ii) From Hosur Jolarpet (via) Krishnagiri . . . . .	90 kms.
(iii) Dharmapuri to Krishnagiri (MG) . . . . .	50 kms.
(iv) Tindivanam to Thiruvannamalai via Gingee . . . . .	64 kms.
(v) Poncicherry to Bangalore (via) Tindivanam, Gingee, Thiruvannamalai and Tirupathur (BG) . . . . .	30 kms.
(vi) From Chengalpattu to Salem via Uthiramerur, Vardavari, Chetpet, Polur, Singharapet, Uthankarai and Dharmapuri (MG) . . . . .	237 kms.
(vii) From Chengalpattu to Arni Road (via) Town of Arni, Cheyyar and Vandavasi . . . . .	90 kms.
(viii) From Arcot-Arni-Kalambur . . . . .	45 kms.



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<i>E. Conversion of Existing Lines</i>	
(i) Salem-Bangalore from MG to BG . . . . .	291 kms.
(ii) Ouddalore Salem MG to BG lines . . . . .	177 kms.
(iii) BG line laid up to Ranipet to be extended to Villupuram in place of MG. . . . .	150 kms.
<i>C. Expansion</i>	
Morappur-Hogenakkal (via) Dharampuri BG . . . . .	75 kms.
<b>Total</b>	<b>1,649 kms.</b>

No survey has so far been conducted in respect of lines suggested above. However, Engineering cum Traffic survey for gauge conversion of Bangalore to Salem MG section into BG has since been carried out and the survey report is under technical scrutiny. A decision with regard to its conversion will be taken after completion of the examination and subject to financial viability and availability of resources.

There are already 49 on going new lines projects, the cost of completion of which is around Rs.1200 crores besides 19 on going gauge conversion projects which, require Rs. 770 crores at current prices for their completion. In view of the severe constraint of resources, the allocation for new lines and gauge conversion projects during 1984-85 is only Rs. 90 crores and Rs. 51-72 cores, respectively.

In view of the existing financial constraint, the suggested lines will have to wait for consideration.

### TRIPURA

Extension of the Railway line upto Agartala in the first phase and then upto Sabroom in Tripura.

A preliminary engineering and traffic survey was carried out during 1970 for the construction of Dharmanagar-Kumarghat-Agartala (Capital of Tripura) of which Dharmanagar-Kumarghat (MG, 33.50 Kms. cost Rs. 29.99 crores) is already under construction. According to survey report (1970), the project Dharmanagar-Agartala (MG, 153 kms) was estimated to cost Rs. 45.30 crores and was not found financially viable (return being negative(—) 1.52% and (—)0.88% with steam and diesel traction respectively. As such the Construction of this project was not recommended by the survey team.

A traffic survey for (i) Dharmanagar-Kumarghat-Kailashar section (MG) 61 Kms. and (ii) Akhaura-Agartala-Sabroom-Belonia section (MG, 156.5 kms.) carried out during 1973 revealed that the project Dharmanagar-Kumarghat (MG, 33.5) kms. would cost Rs. 8.5 crores and would not be financially

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viable (return being 1.48% in the 8th year). Similarly Akhaura-Agartala-Sabroom-Belonia section (MG, 156.5 ks.) would cost Rs. 28.50 crores and was found to be unremunerative with a return of (—)1.4 %

However, a preliminary engineering-cum-traffic survey (updating) for the proposed rail link from Kumarghat to Agartala has been sponsored by the N.E. Council at their cost.

The survey being carried out by N.E. Railway is in progress.

Further consideration to this project will be given after the results of the survey (updating which is in progress, become known subject to availability of funds and its clearance by the Planning Commission. Considering the needs of traffic all over the country and severe constraint of resources as existing at present it would rather be difficult to accommodate the construction of this project in the near future (in the 6th Plan).

Extension of the rail link beyond Agartala upto Sabroom will be considered only after the rail link upto Agartala is established

#### UTTAR PRADESH

##### *A Construction of New Lines*

- (1) Banda-Fatehpur . . . No investigations for this rail link has been made in the past.

In view of the extreme shortage of funds in the Sixth Plan period, it will not be possible to undertake the construction of this rail link for the present.

- (2) Achalda-Farukhabad . . . No investigations have been made for this rail link in the recent past.

In view of the extreme shortage of funds in the Sixth Plan period, it will not be possible to undertake the construction of the rail link for the present.

- (3) Jarwal-Bahraich . . . No investigations have been made for this rail link in the recent past.

In view of the extreme shortage of funds in the Sixth Plan period, it will not be possible to undertake the construction of this rail link for the present.

- (4) Katra-Ajudhia . . . This involves conversion of the existing M.G. Branch line from Mankapur to Katra and construction of a railway bridge over river Saryu for linking Katra to Ajudhia. Since the passenger traffic is conve-

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niently moving by a road bridge there is no justification for construction of a railway bridge for movement of passenger traffic which is predominantly seasonal in nature consisting of pilgrims.

In view of the extreme shortage of funds in the Sixth Plan period, it will not be possible to undertake the construction of this rail link for the present.

(5) Tanda-Basti

No investigations have been made for this line in the recent past.

In view of the extreme shortage of funds in the Sixth Plan period, it will not be possible to undertake the construction of this rail link for the present.

(6) Chunar to Dehri-on-sone

No investigations for this rail link have been carried out in the recent past.

The allotment of funds by the Planning Commission for new lines construction is very meagre and the Ministry of Railways are, therefore, not in a position to undertake this work now.

#### *B. Conversion of Metre Gauge to Broad Gauge*

(1) Mau or Indara to Dearighat  
Barailley-Pilibhit-Lakhimpur  
Kheri-Sitapur-Lucknow.

The proposal cannot be undertaken at this critical stage when the progress of ongoing new lines/conversion projects is suffering due to acute paucity of funds.

(2) Dehri-Rohtas & linking it with  
Gadva Road of U.P.

A re-appraisal of the earlier final location-cum-traffic survey for a B.G. line on Dehri-on-sone-Anjhore-Banjari to Pipradih is already in progress. A decision on this project will be taken after the survey has been completed and survey report examined, subject to availability of funds and clearance by the Planning Commission.

(3) Malhaur and Lucknow line  
from Barabanki-Samastipur.

Lucknow-Malhaur MG section has since been converted to BG and opened to traffic in December, 1983.

#### **WEST BENGAL**

##### *A. Expansion of Route Mileage*

(1) Calcutta Circular Railway

This work has been approved by Planning Commission for including in Railway Budget of 1984-85 and this has been approved by the Parliament. Preliminary arrangements are in hand.

(2) Ranaghat-Lalgola  
upto Farakka

Ranaghat and Lalgolaghat are already connected by a BG railway line. There is no proposal at present under consideration for extending the BG line upto Farakka, which would be about 30 kms. long & would cost about Rs.10.0 crores. In view of the severe constraint on the resources position, it will not be possible to undertake extension of the railway line upto Farakka in the near future.

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*B. Construction of New Lines*

- (1) Falta-Diamond harbour-Kakdwip-Namkhana Construction of a new BG line from Budge-Budge to Namkhana including Laxmikantpur-Kulpi link (100.99 kms.) was included in the Supplementary Budget for 1981-82 at a cost of Rs. 20.77 crores which was passed by the Parliament. However, so far the project has not been cleared by the Planning Commission.
- (2) Khargpur-Digha Construction for a new BG line from Tamluk to Digha has recently been approved in 1984-85 Budget. Clearance of the Planning Commission is awaited.
- (3) Howrah-Amta . . . . Construction of the 74 kms. long Howrah-Amta-Champadaga line is in progress. In the first phase the stretch from Santragachi to Baigachia (23 kms.) has been taken up. The Santaragachi-Damjur line (16 kms.) has been opened recently. The remaining portion of Phase I i.e. Damjur-Bargachia (7 kms.) is expected to be completed during 1984.
- (4) Malda-Balurghat Construction of a new BG railway line from Eklakhi (as rail link between Malda and Eklakhi already exists) to Balurghat/Hilli was approved in 1983-84 and is now in progress.
- (5) Rampurhat-Mollarpur-Panchmi Rampurhat and Mollarpur are existing stations on the BG section Sainthia-Naihati. The new BG line from Rampurhat to Panchgram would be about 25 kms. long and would cost about Rs. 5.00 crores.
- It is not possible to construct this railway line due to difficult funds position.
- (6) Sainthia-Kandi-Berhampur-Jalangi-Karimpur There is no proposal under consideration for the proposed rail lines. The constraint on the availability of funds does not permit undertaking construction of this railway line in the near future.
- (7) Tarakeswar-Arambagh-Siahnpur The preliminary investigation for rail line from Tarakeswar to Arambagh revealed that it will not be viable. Railway has now been advised to carry out proper survey for this line.
- (8) Bankura-Raniganj At the instance and cost of the Govt. of West Bengal a survey was conducted for new line from Bankura to Raniganj via Mejhia, including a bridge over the Kosi river and the survey report made available to the State Govt. in 1977. There was no further initiative from the side of the State Government.

Meanwhile, on the suggestion of coal authorities that certain amount of coal for the Kolaghat Thermal Power Station will move by the proposed line, reappraisal of the earlier survey was undertaken. The reappraisal report under technical scrutiny indicating that the project is not financially viable.

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*G. Conversion of existing Lines from N.G. to B.G.*

(1) **Purulia-Kotahila** . . . An engineering cum traffic survey for conversion of the existing narrow gauge line from Purulia to Kotahila into broad gauge has been recently completed. The survey reports are under examination.

(2) **Bankura-Damodar River Railway** This is a private railway, now managed and operated by the Central Government. The Central Government has not so far exercised option to take over the ownership of the line.

The line is running at a recurring loss for want of traffic. In the circumstances, its conversion into B.G. cannot be considered in the near future, especially when the funds available for new lines/gauge conversions are not adequate even to finance ongoing remunerative and priority schemes.

(3) **Katwa-Ahmedpur**

(4) **Burdwan-Katwa (NG)**

(5) **Santipur-Krishnagar City -Nabdwipdham NG**

There is no proposal under consideration for conversion of these line to B.G.

*D. Proposals for Doubling*

(1) **Panskura-Haldia**

Doubling of a section is considered only when the capacity of the section cannot be stopped up to the required level with other cheaper inputs. Panskura-Haldia is a section with adequate capacity to meet the requirements of traffic not only at the present level but also in the foreseeable future. There is, therefore, no justification for doubling of this section.

(2) **Krishnanagar-Lalgola Section**

There is no proposal at present under consideration for doubling the Krishnanagar-Lalgola BG section. The capacity available on this section is considered adequate to deal with the volume of traffic. Doubling of this section could be considered in future as and when warranted on traffic consideration.

(3) **Doubling of Dum-Dum Bongaon section**

Doubling between Dum Dum and Barasat has been completed. Doubling of the remaining section from Barasat to Longaon will be given due consideration and when warranted by traffic needs.

*E. Linking*

(1) **Linking of Ballyghat and Bally Stations**

It is not possible to construct a railway line linking these places due to difference in level and existence of a flyover.

(2) **Linking Ballyghat-Scaldah North Sections**

This is an existing line and these places are already connected by rail.

(1)

(2)

## NORTH EAST COUNCIL

*A. Extension of B.G. Line*

New Bogaigaon-Gauhati

B.G. line from New Bogainagon to Gauhati has since been completed and commissioned for traffic in April '84.

*B. Augmentation*

Lumding-Badarpur Hill Section

Keeping in view the constraints of resources, work of provision of additional traffic facilities on Lumding-Badarpur hill section was sanctioned at a cost of Rs. 2.32 crores. The work is in advanced stage of progress. At this stage, enhancement of capacity is expected to be achieved by running longer trains with multiple locomotives. For long term augmentation the alternatives include the one suggested in para 21. Remark against this para may also please see.

*C. Construction of B.G. Line*

Gauhati-Dibrugarh

Conversion of MG into BG from Gauhati to Dibrugarh is an approved work. Final location cum-engineering-cum-traffic survey for this conversion is in progress to finalise the various details for execution of the work. Preliminary-Engineering-cum-Traffic Survey for extension of BG line from Chaparmukh to Dibrugarh following a new alignment touching important towns in Assam, as a deposit survey on behalf of the North East Council is also in progress. On completion of the surveys, the same will be examined with regard to technical feasibility and financial viability in consultation with the Planning Commission to decide alignment for extending BG line from Gauhati to Dibrugarh.

Jagi Road-Badarpur

This survey involving difficult terrain has been entrusted to RITES and is in progress. The alignment from Lanka to Silcher has been found to be more favourable than the alignment from Jagi Road to Badarpur.

On completion of the survey the report of the same will be examined with regard to its feasibility and financial viability in consultation with the Planning Commission for taking a decision in this regard.

*D. Construction of Railway Line*

(i) Gauhati-Burnihat

This project is not being progressed in view of the Govt. of Meghalaya's letter No. TPT 154/80/159 dt. 22-12-83 under which they had advised that there is public reaction against construction of this line and the matter is being examined.

Adequate priority is being given to complete other lines expeditiously by way of increased allotment of funds within the over all constraint of resources for new lines projects.

(1)

(2)

*E. Construction of M.G. Line*

- (i) Lalaghat-Vairengte . . . In view of the severe constraint of resources and heavy commitment already in hand, construction of the proposed line will have to wait for consideration.
- (ii) Kumarghat-Agartala . . . Updating of the Traffic-cum-Engineering Survey for a railway line from Kumarghat to Agartala is in progress as a deposit work (NEC). On receipt of the survey report the same will be examined with regard to the technical feasibility and financial viability in consultation with the Planning Commission subject to the availability of the resources for taking up a decision on construction of this line.
- (iii) Dimapur-Chumukedima . . . Preliminary Engineering-cum-Traffic Survey for construction of a BG railway line from Dimapur to Chumukedima as a deposit work on behalf of the North East Council is nearly completed. Survey report, on receipt of the same from the railway, will be examined with regard to its feasibility and financial viability in consultation with the Planning Commission for taking up a decision for construction of the railway line subject to the availability of the resources.
- (iv) Jiribam-Makru . . . Preliminary Engineering-cum-Traffic survey for extension of a M.G. line from Jiribam to Makru as a deposit work on behalf of North East Council is in progress. On receipt of the same, it will be examined with regard to its feasibility and financial viability in consultation with the Planning Commission or taking up a decision in this regard.
- (v) Tipling-Itanagar . . . Reappraisal of the Preliminary Engineering-cum-Traffic Survey for the line from Tipling to Itanagar is in advanced stage of progress. On receipt of the survey report from the railway, the same will be examined with regard to its feasibility and financial viability in consultation with the Planning Commission for taking up a decision in this regard.
- (vi) Lekhapani-Kharsang . . . In view of the severe constraint of resources and heavy commitment already in hand, consideration of the proposed line will have to wait or consideration.
- (vii) Kurkongchek-Passighat . . . In view of the severe constraints and heavy commitment in hand, the proposed line will have to wait for consideration.

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