P.A.C. No. 337

PUBLIC ACCOUNTS COMMITTEE (1971-72)

(FIFTH LOK SABHA)

FORTY-FIFTH REPORT

[Appropriation Accounts (Railways) 1969-70 and Report of the Comptroller & Auditor General of India for the year 1969-70, Central Government (Railways)]

LOK SABHA SECRETARIAT
NEW DELHI

April, 1972/Vaisakha, 1894 (S)
Price : Rs. 3·70

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27-10-1971 (F.N.)

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(1971-72)

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Shri Avtar Singh Rikhy—*Joint Secretary*

Shri B. B. Tewari—*Deputy Secretary*

Shri T. R. Krishnamachari—*Under Secretary*

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*Ceased to be Member of the Committee consequent on retirement from Rajya Sabha w.e.f. 2-4-1972.

@Declared elected to the Committee on 3-6-1971 *vice* Shri Niranjan Verma resigned.

INTRODUCTION

I, the Chairman of the Public Accounts Committee as authorised by the Committee, do present on their behalf this Forty Fifth Report of the Public Accounts Committee (Fifth Lok Sabha) on the Report of the Comptroller and Auditor General of India for the year 1969-70, Central Government (Railways).

2. The Report of the Comptroller and Auditor General of India for the year 1969-70, Central Government (Railways) was laid on the Table of the House on the 1st April, 1971. The Committee examined the Report of the Comptroller and Auditor General of India for the year 1969-70, Central Government (Railways) at their sittings held on the 25th to 28th October, 1971 and finalised this Report at their sitting held on the 24th April, 1972. Minutes of the sittings form Part II* of the Report.

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

4. The Committee place on record their appreciation of the assistance rendered to them in the examination of the Audit Report by the Comptroller and Auditor General of India.

5. The Committee would also like to express their thanks to the Chairman and Members of the Railways Board and representatives of the Ministries of Industrial Development and Agriculture for the cooperation extended by them in giving information to the Committee.

ERA SEZHIYAN,

Chairman,
Public Accounts Committee.

NEW DELHI;
April 24, 1972
Vaisakha 4, 1894(S)

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CHAPTER I

FINANCIAL RESULTS OF WORKING OF THE RAILWAYS

Financial Results

Audit Paragraph

1.1. For the fourth year in succession the working of the Railways showed a deficit in 1969-70. Against a nominal surplus of Rs. 1.92 crores anticipated in the Budget, the accounts for the year closed with a deficit of Rs. 9.83 crores. As the balance in the Revenue Reserve Fund which stood at Rs. 63.21 crores at the end of 1965-66 was practically exhausted during 1968-69 due to withdrawal therefrom for meeting the recurring deficits in 1966-67 to 1968-69 the Railway had to obtain a loan of Rs. 8.86 crores from General Revenues for meeting the dividend obligation. This was the first time since 1924-25 that the Railways had to resort to a loan to meet their liability on account of dividend to General Revenues. Besides, the Railways had also obtained a loan of Rs. 18.14 crores during 1969-70 for meeting expenditure on works chargeable to Development Fund. The total liability on account of loans taken from General Revenues at the end of the year under report stood at Rs. 52.30 crores of which Rs. 43.45 crores was for meeting the cost of works charged to Development Fund. In addition, Railways owe to the General Revenues Rs. 56.89 crores on account of deferred dividend of which Rs. 13.04 crores became due for payment by 1969-70 but could not be paid owing to inadequate surplus in the working of the lines concerned.

1.2. The main reason for the deficit was the increase of Rs. 18.64 crores in the Revenue expenditure which was partly off set by an increase of Rs. 4.27 crores in the gross Receipts and a reduction of Rs. 2.62 crores in the payments to General Revenues. The bulk of the increase under revenue expenditure occurred under 'Repairs and maintenance' (Rs. 7.95 crores) and cost of fuel (Rs. 9.59 crores) c.f. para **4 below:—**

(In crores of rupees)

Particulars	Budget	Actuals	Variation
1. Gross Receipts Deduct	947·32	951·59	(+) 4·27
2. (*a*) Revenue Expenditure	786·39	805·03	(+)18·64
(*b*) Payments to General Revenues	159·01	156·39	(—)2·62
3. Surplus/Deficit	(+) 1·92	(—)9·83	(—)11·75

[Paragraph 1(a)—Report of the Comptroller & Auditor General for the year 1969-70 on Railways].

1.3. The Committee desired to know the machinery employed by the Railway Board for preparing the financial and physical targets and for a review of the performance *vis-a-vis* the prescribed targets. The Chairman, Railway Board stated, "This plan is prepared on the

basis of information obtained from the Ministries, vetted by the Planning Commission who hold discussions with the Ministries alongwith the representatives of the Railway Ministry. The Railways have also got a planning cell. There is a Planning Deputy Chief (Operating) on every railway, and he is closely associated with the formulation of the plan in the Railway Board office. We have also got an economist, and he takes into consideration the trends of industrial production, agricultural output and all other relevant factors, but as far as the main issues like the coming up of new industries, major expansion etc., are concerned, we are dependent upon the information that is given to us by the other ministries, vetted by the Planning Commission, though we try to keep in touch with the developments to see that we do not exceed the realistic anticipations in the construction of our works."

1.4. The Financial Commissioner for Railways further explained, "This plan is finalised at various stages. We have got a working group for finalising the targets of the Railway Plan which consists of the representative of the Railway Ministry, the Director of Railway Planning, and representatives of the various ministries, presided over by a senior officer of the Planning Commission. There is simultaneously the Committee of Resources which goes into the whole question of resources—Central Government, State Government, public sector undertakings, Railways, P&T etc. To this Committee we furnish our estimated receipts and expenditure for the Plan period and they find out from that what will be our surplus or deficit."

1.5. To a question whether the Railways' plan was formulated according to the revenue surplus or according to the needs of the areas, the Chairman Railway Board replied, "The needs of the railways in respect of additional facilities, new lines, conversion, additional stock, etc. are known to the Railways through constant discussion. There is an annual works programme which is discussed in great detail, after it is formulated by the railways under general directions given by the Board. At that discussion, the Directors of the Board have a preliminary meeting with the General Managers and staff officers. Thereafter, the full Board meets the GMs and staff officers. Therefore, the needs are known."

1.6. The Committee enquired whether Railway Board had any system of having a cross-check of the projections given by the Ministries. In this connection the witness stated, "We can only show a little extra caution in accepting their figures, and as the work progresses, we keep in constant touch with it to see whether the anticipations given are really coming through and to regulate the progress of works accordingly."

1.7. The Committee pointed out that from 1965-66 onwards the Railways were showing deficits and in 1969-70 against an anticipated surplus of Rs. 2 crores the Railways actually had a deficit of Rs. 9.83 crores. Asked how in spite of elaborate planning the anticipations went wrong, the Chairman, Railway Board stated, "The plan is based upon certain anticipation of activity in the country. The activities are, to some extent, in the private sector and to some extent in the public sector. We have to go by reasonable anticipation. In 1969-70

when we saw that conditions have become difficult, the prices were increasing, traffic was not materialising, working expenses were overtaking our revenues, we started an economy drive and we were able to get fairly good results in respect of fuel economy as well as establishment. We also tried to slow down works which were in progress and to cut out some of the works with a view to saving in investment."

He added, "We are having to face constantly rising prices and our working expenses step up with rising prices. But our general revenues cannot make up for this without an adequate increase in rates and fares and many times this is not possible due to reasons which are known to all of you."

1.8. In reply to a question whether rise in prices alone was responsible for the imbalance in the budget or was it due to defective budgeting the witness stated, "It is primarily due to rise in prices."

1.9. The table below gives the anticipations of earnings, traffic and deficits during the last four years :—

	1966-67			1967-68		
	Budget	Actuals	Variation	Budget	Actuals	Variation
Goods earnings ..	506·53	481·62	—24·91	526·00	502·79	—23·21
Passenger earnings ..	227·20	229·34	+ 2·14	255·25	252·64	- 2·61
Other earnings ..	61·81	58·04	—3·77	66·27	62·93	- 3·34
Total Gross Receipts ..	795·54	769·00	—26·54	847·52	818·36	—29·16
Total Revenue Expre. ..	639·85	654·88	+ 15·03	704·68	708·36	+3·36
Dividend to General Revenues	133·50	132·39	—1·11	141·84	141·53	- ·31
Deficit/surplus (+) (-) ..	—22·19	—18·27	—40·46	+1·26	—31·53	—32·81
Volume of the originating goods traffic .. .. (Revenue earning)*	173·00	164·2	—8·8	172·7	162·4	—10·3
Balance in D.F. ..		3·37			0·46	
Balance in R.R.F. ..		41·70			12·20	
Total goods traffic* ..		201·6			211·4	
Operating Ratio% ..		83·2			84·7	

*Million tonnes.

	1968-69			1969-70		
	Budget	Actuals	Variation	Budget	Actuals	Variation
Goods earnings ..	545·00	562·79	+17·79	600·00	594·28	—5·72
Passenger earnings ..	278·00	265·10	—12·90	273·00	278·86	+5·86
Other earnings ..	69·69	71·18	—1·49	74·32	78·45	+4·13
Total Gross receipts ..	892·69	899·07	+6·38	947·32	951·59	+4·27
Total Revenue Expre. ..	739·69	756·26	+16·27	786·39	805·03	+18·64
Dividend to General Revenues	152·00	150·67	—1·33	159·01	156·39	—2·62
Deficit Surplus (+) (—) ..	+1·00	—7·86	—8·86	+1·92	—9·83	—11·02
Volume of originating goods traffic .. (Revenue earnings)*	169·4	170·8	+1·4	179·8	173·8	—6·0
Balance in D.F. ..		1·26			1·18	
Balance in R.R.F. ..		3·49			2·31	
Total goods traffic* ..		204·0			207·9	
Operating Ratio (%) ..		82·5			83·0	

*Million tonnes.

1.10. From the above it is seen that except in 1968-69, the budget estimates in respect of the volume of originating goods traffic and the goods earnings have not come upto expectation. The goods earnings fell short of the budget estimates by Rs. 24.91 crores in 1966-67, by Rs. 23.21 crores in 1967-68 and by Rs. 5.72 crores in 1969-70. The corresponding figures of the total variation in each of the above three years were :—

1966-67	...	... Rs. 40.46 crores
1967-68	...	... Rs. 32.81 crores
1969-70	...	... Rs. 11.62 crores

1.11. Another significant point to be noticed from the above mentioned statement is that the total revenue expenditure has always been under-estimated in that the actual expenditure in each year was far more than provided for in the budget estimates.

1.12. The Committee pointed out that earnings may not materialise according to expectations but Railways should be able to estimate precisely their expenditure on major items such as staff, fuel etc. To this the Financial Commissioner for Railways replied, "It is not quite so. Last year, there was an interim relief announced in the middle of the year which increased our expenses by Rs. 37 crores. DA was increased which costs Rs. 13 crores more to the Railways. Then there were various discussions with the staff at the National and Departmental councils, with the result that there was

another increase of some Rs. 2 crores. Even staff pay, we have not been able to estimate correctly. We cannot say what DA the staff will be getting during the year. That is why this has happened. The number of staff is 13.7 lakhs (1.37 million people). If the dearness allowance increases by Rs. 16 a month or Rs. 200 a year, that itself comes to Rs. 28 crores. There have been also increases in the prices of coal, diesel oil, steel and other materials."

1.13. Referring to the traffic targets laid down from time to time, it was pointed out that against a target of 249 million tonnes for which capacity was planned the actual traffic materialisation was of the order of 203 million tonnes by the end of Third Plan. For the Fourth Plan the originally planned target was 320 million tonnes which was subsequently reduced to 269 million tonnes. This has been further reduced to 240.5 million tonnes. The Committee enquired that considering the past performance whether the Railways would be able to realise a target of 240.5 million tonnes by the end of the Fourth Plan. To this the Financial Commissioner for Railways replied,

"Sir, we have also our doubts. You have rightly raised this question. This has come to our mind also. I may explain that when the original fourth plan was discussed, the Economic Ministries asked for 290 to 300 million tonnes. We said that such a high figure of loading will never be reached and that it will never exceed 265.5 million tonnes. The Fourth Plan was discussed in January, 1969 by the Economic Ministries. There is a Working Group for every sector Plan. For the Railways we have got a Working Group in the Planning Commission which represents the representatives of all the Economic Ministries and the Railway Ministry. In each of the meetings, the Railway representative was saying that we should plan for a less ambitious Plan. We said the target should never exceed 265 million tonnes. Then the other Ministries were saying that they wanted the target to be 290 to 300 million tonnes—each one putting up their figures. Iron and Steel so many tonnes, foodgrains so many tonnes, and so on. All that came to 290 to 300 million tonnes. This was even mentioned in the Draft Fourth Plan, but because we affirmed that it would never exceed 265 million tonnes, ultimately the Planning Commission agreed with us. Sir, again last year, based on our experience for 1969-70 and the earlier months of 1970-71, we went to the Planning Commission and said that this target of 265 should be reduced to 240.5 million tonnes. Even though the other Ministries did not agree with our argument, the Planning Commission said that we could reduce the target. You will recall, Sir, that immediately we reduced the wagon orders by some 8,000 wagons. We could also cut out some other things. But unfortunately, the replacement programme had to go on. We could not also afford to reduce the staff in the production units, particularly the units manufacturing electric and diesel locomotives. We are not importing them now. We also wanted to take up replacement of overaged locomotives. Even today, this morning, we were discussing with the Planning Commission. They wanted us to prepare the Fifth Plan estimates. We told them that we could not prepare them, unless they give us a realistic traffic target for Fifth Plan, taking into account that even the 240.5 million tonnes will not be reached in 1973-74. So, we are all the time at it.

We are also placed under several other constraints. I may explain that it was because of the fall in traffic that we reduced our Fourth Plan by 250 crores of rupees."

1.14. **The Committee note with concern that for the Fourth year in succession the working of the Railways showed a deficit in 1969-70 also. Against a nominal surplus of Rs. 1.92 crores anticipated in the Budget, the accounts for the year closed with a deficit of Rs. 9.83 crores. Apart from the unsatisfactory state of Railway finances which is reflected in the working results during the year under review i.e. 1969-70, the Committee feel that the methods employed for estimation of earnings and expenditure require further improvement. During the past four years over-estimation of goods traffic and goods earnings and under-estimation of the revenue expenditure seems to have been the most significant recurring feature of the Railway Budgets. The over-estimation of goods traffic and goods earnings can only mean that the anticipations of traffic given out by various Ministries/Departments of Government of India are not scrutinised in the light of experience at the initial stages with the utmost care they deserve. The Committee are of the view that with the vast experience and elaborate planning machinery which they have, the Railway Board should be in a position to exercise a judicious check on the traffic anticipations by other Ministries/Departments so as to arrive at realistic targets for achievement. In this connection the Committee would also like to draw attention to para 1.25 of their 116th Report (Fourth Lok Sabha) wherein it was emphasised that the estimation of traffic requirements should be done on a more realistic basis.**

1.15. The deficits in the working of the Railways since 1966-67 have been as under:-

		crores
1966-67	.. ..	18.27
1967-68	.. ..	31.53
1968-69	.. ..	7.87
1969-70	.. ..	9.83
		67.50
1970-71 (anticipated)	.. ..	23.88

1.16. The recurring deficits have in the past been met from the Railways' Revenue Reserve Fund. In 1969-70 however on account of the Revenue Reserve Fund having been depleted, the Railways took a loan of Rs. 8.86 crores for meeting their dividend obligation. Besides, the Railways also obtained a loan of Rs. 188.14 crores during 1969-70 for meeting expenditure on works chargeable to Development Fund. The Audit paragraph states that the total liability on account of loans taken from General Revenues at the end of 1969-70 stood at Rs. 52.30 crores of which Rs. 43.45 crores was for meeting the cost of works charged to Development Fund. In addition, Railways owe to the General Revenues Rs. 56.89 crores on account of deferred dividend of which Rs. 13.04 crores became due for payment by 1969-70 but could not be paid owing to inadequate surplus in the working of the lines concerned.

1.17. At the instance of the Committee, the Railway Board have furnished the following list of lines in respect of which the period of moratorium is over. The statement also gives information regarding the arrears of dividend upto 1969-70:

Name of Railway		Year in which Moratorium is over	Arrear of dividend upto 69-70
			(In rupees)
Central ..	1. Khandwa Hingoli	1966-67	2,16,12,420
Eastern ..	1. B.G. Line to serve the area previously served by Barasat Basirhat Light Railway	1967-68	54,98,484
	2. B.G. Line to serve area served by Bakhtiarpur Rajgir	1967-68	59,31,074
Northern ..	1. Barhan-Etah	1964-65	27,85,436
	2 Bhildi-Baniwara	1963-64	33,48,665
	3. Robertsganj-Garwa Road	1969-70	5,56,04,619
Northeast Frontier	1. Malda-Khajuria Ghat	1966-67	8,19,304
South Eastern ..	1. Bouriland-Karanji ..	1968-69	79,75,004
	2. Rao-Dumrao	1969-70	2,68,62,292
			13,04,37,298

1.18. Referring to the huge deficit the Railways had accumulated over years, the Committee desired to know the steps taken or proposed to be taken to improve the position. The Financial Commissioner for Railways stated during evidence:

"This has woried us also quite a lot. In this connection we have prepared some charts, showing how the cost of the various inputs has actually increased over the years and what the various cost elements are. One of the most important elements is that staff cost, that is the cost of wages of staff including officers and the 1.37 million other staff, comes to 60 per cent of our total expenses. Sir, here we are not able to make any retrenchment or anything of that kind. What we did from 1966-67 onwards was that we imposed a ban that no fresh recruitment would be made except in safety categories. That is, vacancies caused by retirement etc. were not filled by recruiting new personnel. By this we reduced the number of personnel employed. But we had no control over their emoluments which are fixed for all categories of Government servants centrally. We were also affecting economies by adopting improved technology and working methods. Thus the cost on the maintenance of railway track has been brought down. Another is by using diesel and electric traction, the cost of haulage has been brought down, because these diesel and electric locos are more efficient than steam engines and they also involve less staff.

"Then, Sir, in the case of coal, the price has gone up by 135 per cent. Coal accounts for 12 per cent of our expenses. Then iron and steel has gone up by 175 per cent. So, all the inputs are going up far out of our control. How can we control our expenses in these circumstances?"

1.19. The Committee enquired whether the fact that 60 per cent expenditure of Railways was on staff indicated that there was over-staffing. To this the Chairman, Railway Board replied, "If you take into consideration the advanced technology that is possible to apply there may be overstaffing. But if you consider old technology that we have worked with, then it may not be considered over-staffing. Every diesel locomotive which is introduced will save 32 staff. If we are able to do this to a greater extent, then the requirement of the staff will be reduced. Similarly, if we can introduce some machines, the requirement of the staff will be reduced. But we have to take a balance."

1.20. In reply to another question, he added, "With the old technology, the man-power will be higher. Actually, this is the reason why we are losing on metre-gauge. With the change in technology and adoption of advanced technology, the man-power requirement will be reduced and the percentage of pay-roll will be brought down below 60 per cent. But, we have to see what is possible considering the climate in the country and whenever there is lot of unemployment, we have to be a little cautious in this respect."

1.21. The Committee enquired when the Railways were expecting to get out of the red and what were the conditions to be fulfilled before this could be done. The Financial Commissioner for Railways deposed, "Our traffic should improve, the economy of the country should improve. We are inevitably linked with the economy. Prices should stabilise and we should get the traffic we are equipped to carry. In the Third Plan, every year the traffic was increasing by 10—12 million tonnes. Now it is stagnant. Unless traffic improves, we will not get the full benefits of dieselisation and electrification."

1.22. He further added, "We are making valiant efforts. The Railway Convention Committee is going into this matter."

1.23. **The Committee note that during 1969-70, because of the Revenue Reserve Fund having been depleted, the Railways were obliged to take a loan of Rs. 8.86 crores from the General Revenues for meeting their dividend liability. This is decidedly an undesirable phenomenon which needs to be curbed.**

1.24. **Besides this the Railways have also taken loans of the order of Rs. 43.45 crores till the end of 1969-70 for meeting the cost of works charged to Development Fund and over and above these they are indebted to the General Revenues to the extent of Rs. 56.89 crores on account of deferred dividend on the new lines. During the year 1969-70 deferred dividend of Rs. 13.04 crores became due for payment but could not be paid owing to inadequate surplus in the working of the new lines concerned. The Committee desire that action should be taken to ensure that revenue expenditure on these lines is**

reduced to the minimum and that earnings are augmented by attracting more traffic so that the arrears of dividend get paid and not extinguished after 20 years of opening when the liability to pay arrears ceases.

1.25. **During evidence it was stated that due to increase in prices over the years the cost of staff and various inputs such as fuel and other materials like iron and steel had gone upto a very great extent as compared to the increases in the fares and freight rates charged by the Railways and therefore the Railways continued to be in the red. The Committee would like to stress that in these circumstances all out efforts should be made to cut out avoidable expenditure and attract more traffic to Railways by improving the service. The Committee note that the Railway Convention Committee are currently examining the working of Railways with special reference to their obligations to the general exchequer and would be presenting in due course their Report on the subject.**

Social Burdens

1.26. While presenting the budget for 1971-72 the Railway Minister stated that the Railway finances were muleted with some social burdens. The Committee called for information about the quantum of annual loss on account of various social burdens. The Railway Board have accordingly furnished the following note:

"(Data given below are estimated data for the year 1970-71. These figures are based on statistical approximation in the absence of actual figures):

	Rs. crores.
(1) Loss on unremunerative branch lines	8·00
(2) Loss on suburban traffic	12·00
(3) &(4) Loss on non-suburban passenger traffic (class-wise) and other coaching traffic	47·00

[Figures of loss on passenger traffic and other coaching traffic (parcels and luggage) are not at present being separately worked out. The loss on non-suburban passenger traffic and other coaching traffic taken together has been estimated to be Rs. 47 crores for the year 1970-71. While considerable advance has been made in the matter of costing goods traffic by functional groups, *viz.* line haul, marshalling break-of-gauge transhipment, repacking of "smalls" and terminal (wagon loads and smalls separately), arrangements are afoot for costing of passenger, parcel and luggage traffic also and voluminous data are under collection from about 2,400 stations on the Indian Railways for this purpose.]

	Rs. crores
(5) Loss on low-rated freight under major items	52·00
(6) Loss on freight concessions on goods under major items	2·04

	(Rs. in lakhs)
(a) Free carriage of goods imported under Indo-US and Indo-UK Agreements.	10·00
(b) Free carriage of Red Cross Stores and other stores	5·00

	(Rs. in lakhs)
(c) Free carriage of relief goods authorised on *ad-hoc* basis on occasions of flood, drought, etc.	50·00
(d) Value of concession on fodder booked at famine concession rates ..	39·00
(e) Value of concession on export traffic	100·00
Total ..	204·00 or Rs 2·04 crores

(7)Loss on fare concessions to passenger under different categories .. Rs. 2·20 crores

	(Rs. in lakhs)
(a) Concession to students	150·00
(b) Concession to atheletes, artists, N.C.C., patients, Nurses, Teachers, delegates to Conferences etc.	48·00
(c) Hill concession	22·00
	220·00 or Rs. 2·20 crores

1.27. Referrring to the plea that one of the reasons for the growing deficit on Railways was the increased cost of social burdens, the Committee pointed out during evidence that they were not peculiar to the year 1969-70 as they were there in the past also. Thereupon the Finance Commissioner for Railways stated: "No doubt, the social burdens were there also at that time. Our basic problem in Indian Railways has been that our freight and fare structure has not kept up with the price level. So, the loss will go on. If we lost Rs. 8 crores on the suburban services earlier, we are now losing Rs. 12 crores."

1.28. In the same context the Chairman, Railway Board stated: "Sir, the explanation is that at a time when the Railways were prosperous, the Railways could naturally afford some social burdens. But the margin is going down and with increasing working expenses on account of increased prices it is turning to our disadvantage. The social burdens that we have been carrying on till now we will not be able to carry further particularly as we are spending more and more money on that account. In the old days, the suburban fares were fixed at a level which involved only a small loss. But our suburban fares have not been increased due to various reasons while our price level has gone up. The cost of replacement in that section is very heavy and the life of assets is very short because it is used very intensively. So, the cost of replacement or improvement or of additional trains—all these have been going up and our losses have continuously been going up. The same applies to the narrow-gauge section due to the fact that manpower required for operation of unit of transport is heavy. At one time the manpower was very cheap when compared to freight structure. Today the revenue is not adequate to bear the expenses. And the road transport is also coming up and the competition is severe also. What they get by roads cannot be matched by the Railways everywhere."

Suburban Traffic

1.29. It is seen that the loss on suburban traffic has been estimated to be Rs. 12 crores per annum. Giving reasons for this loss, the Chairman, Railway Board stated during evidence: "In regard to suburban traffic, I will point out that the cost of travel per kilo metre in terms of the number of minutes of work a lowest paid worker has to put in is today much less than what it was 30 years ago. If a worker had to travel by suburban train, he had to work for 20 minutes to earn the money to purchase the ticket. Today, he is having to work much less than that. It would show that the Railways have been getting less."

1.30. He further added "In the old days the fares were fixed taking into account the traffic in peak hours. Then the return journey used to be less crowded. When there was dispersal of industry people started travelling both ways and the peak gradually became less and less of a peak. Then the next stage was over-crowding. Due to these factors the losses were not shown up to the same extent for a long time. But in the last 20—30 years, these losses have been steadily increasing because we have not been able to increase our season ticket fares. Even the over-crowding has brought no relief in this matter."

1.31. In reply to a suggestion that the fares on suburban trains be increased, the Chairman, Railway Board stated: "We are working under very severe constraints for reasons, which are well-known—the political reasons. Suburban fares have not been raised just as third class fares have not been raised adequately."

Non-suburban Traffic

1.32. The loss on non-suburban passenger traffic and other coaching traffic constitutes a major part of the total loss on account of social burdens. During 1970-71 out of a total loss of about Rs. 123 crores attributable to social burdens, the loss on non-suburban passenger traffic and other coaching traffic taken together was estimated at Rs. 47 crores. The Committee called for information regarding the break-up of the total loss class-wise. In a written note the Railway Board have stated: "The term non-suburban passenger train has been referred to in a broad sense. Non-suburban passenger trains also carry some elements of other coaching traffic such as luggage, parcels, reserved carriages, postal vans, etc. The vehicle kms. of passenger coaches constitute the bulk—over 90 per cent of the total non-suburban coaching vehicle kms. The loss of Rs. 47 crores, referred to in evidence, pertains to total non-suburban coaching traffic, the bulk of which in terms of vehicle kms. is in respect of passenger coaches.

1.33 It is regretted that owing to the inadequacy of statistical, accounting and other data as at present collected, it is not possible to break up and furnish to the Committee the total loss of Rs. 47 crores into the constituent elements as desired. Action has already been initiated to take in hand detailed costing of coaching services,

Relevant basic elements of costs in respect of 2,400 stations are being collected. It will take some time to test check and analyse the data and draw up meaningful conclusions."

1.34. From the information available with the Committee it is seen that the net earnings on working a passenger train one K.M. have declined steadily over the years as indicated below:—

Year	Net earnings on working a passenger train one KM (In rupees)	
	B.G.	M.G.
1966-67	(—)1·45	(—)2·86
1967-68	(—)1·34	(—)2·94
1968-69	(—)1·40	(—)3·50
1969-70	(—)1·82	(—)3·12

1.35. During evidence the Committee enquired whether any study has been made to identify the passenger trains services which are running at a loss. The Chairman, Railway Board deposed: "We have made, Sir. The passenger services which are losing are really the stopping passenger services, the services which stop at every station. We have got a slightly lower rate of tariff for people who travel less than 50 kilometres and people who travel more than 50 kilometres are governed by a slightly higher rate of tariff. It is the passengers who go by stopping trains and travel for less than 50 km. that are causing a loss. Our cost per train as for the stopping train, but we have not been able to increase our stopping train traffic to the mail train rate because of resistance."

1.36. To a question whether the economics of different classes of services in trains have been worked out, the witness replied: "Actually the losses are more in the higher classes, but if in the higher classes, the occupation is about 80 per cent, then they meet their cost. 89 per cent of our passenger revenue is from the third class passengers."

1.37. Later on, in a written note furnished to the Committee, the Railway Board have stated: "The Railway Administrations are not in a position at present to identify all unremunerative passenger train services. With the progress of costing of passenger and other coaching traffic and working out a procedure for arriving at the earnings of individual passenger trains, such identification may be possible in due course.

(2) The first phase of costing passenger and other coaching traffic would enable us to split up the expenditure on coaching services between passenger and other coaching (luggage and parcels) services. The second phase would enable us to work out the cost of Mail and Express trains and other slow passenger trains.

(3) It may, however, be pointed out in this connection that a census of occupation is taken twice a year on all sections. An

examination of the census results in respect of Branch Line passenger trains was carried out recently. As a result of this review, action has been taken by the Railways to reduce the number of passenger coaches on 250 trains, where it was found that the occupation was low even in respect of trains with a smaller number of passenger coaches, action has been taken to discontinue the service and 26 trains have been cancelled in this way. It may be added that greater progress in this direction could not be achieved owing to opposition of Zonal Railway Users' Consultative Committees and State Governments, the concurrence of the latter being virtually obligatory before any existing service is withdrawn."

1.38. As to why the First class Air conditioned passengers paid less than what it cost to the Railways was explained by the Chairman, Railway Board in the following words: "This is because we have to keep up certain standards of travel as a matter of policy. This has been going on due to historical reasons. But whenever the occupation is less, we try to reduce that type of accommodation. But it cannot entirely be eliminated because there will be complaints and representations in this regard."

1.39. Asked whether fares of these classes could not be increased to cover up the cost of service, the witness replied: "For the Air-conditioned Class we have increased the rate up to the limit beyond which we cannot go, because the number of passengers will then decrease. We have to take into consideration the charges for air travel as they are our competitors. So, we cannot increase this rate beyond a certain limit.

The same thing applies to 1st Class fares also. If we increase the 1st Class fares too much, the passengers will be tempted to go to the 3rd Class Sleeper or the Air-conditioned Chair Car."

1.40. To another question whether the first class and air-conditioned class paid for themselves or were being subsidised by 3rd class, the Chairman, Railway Board replied: "The 1st class has paid for itself, to my knowledge, while the air-conditioned class might not have paid for itself."

1.41. As regards the average percentage of occupancy of air-conditioned, I, II and Air-conditioned III Class services during the years 1968-69 and 1969-70, the Railway Board have in a written note stated: "Railways do not maintain any overall annual average occupancy ratio of the different classes of passenger accommodation, as precise, or even reasonably reliable, figures of berth/seat kms. operated are not available.

It may, however, be added that a census of occupation of passenger trains is conducted twice a year spread over a period of three months each, the first during the period April to June and the other during the period October to December. Census is taken of actual passengers in different classes at selected junction points covered during the run of the trains, and this is compared with the available capacity on the trains. No overall average is worked out from these results, as the distance travelled by each passenger is not taken note

of, which is an important element in any calculation of the occupancy of a particular class. It may be stated that the results of the census referred to above are used for reviewing the composition of different passenger trains adding or taking off coaches as necessary and also for discontinuance of services on branch lines, wherever feasible."

1.42. **During evidence it was made out that one of the reasons for the growing deficit on Railways was the increased cost of social burdens borne by them. From the information made available to the Committee it is seen that in 1970-71 out of a total loss of about Rs. 123 crores attributable to social burdens loss on non-suburban passenger traffic and other coaching traffic taken together was estimated at Rs. 47 crores. The Committee were, however, surprised to learn that the costing of various services such as passenger, parcel and other coaching traffic has not been undertaken so far. The economics of different services in passenger trains such as 1st Class, Air-conditioned, Third Class etc., have also not been worked out. Only now some data are being collected for evaluation purposes. While the Committee do not want to make any detailed suggestions in this behalf because the Railway Convention Committee may be going into the entire question of social burdens, they would nevertheless suggest that passenger trains which are unremunerative and the classes of services like Air-conditioned and First Class which do not pay for themselves should be expeditiously identified with a view to taking remedial action and reducing the loss to the minimum.**

Audit Paragraph

1.43. The deficit occurred mainly on four railways, that is Southern, North Eastern, Northeast Frontier and South Central Railways, which together accounted for a total deficit of Rs. 44.97 crores; partly counter-balanced by surpluses on the South Eastern, Western and Central Railways aggregating to Rs. 46.44 crores. The actual surplus/deficit on each Railway *vis-a-vis* the Budget anticipations and the actuals for 1968-69 is as under:—

Railway	1969-70		1968-69
	Budget	Actuals	Actuals
Central	(+) 3·36	(+) 5·60	(+) 6·65
Eastern	(+) 5·19	(+) 1·35	(+) 2·83
Northern	(+) 1·40	(+) 0·53	(+) 0·19
North-Eastern	(—) 8·09	(—) 9·19	(—)10·55
Northeast Frontier	(—)14·60	(—)15·76	(—)16·02
Southern	(—)14·15	(—)18·21	(—)15·83
South Central	(+) 6·72	(—) 1·81	(+) 4·21
South Eastern	(+)22·79	(+)26·53	(+)20·83
Western	(+)14·91	(+)14·11	(+)13·11
Production units and Misc.	(—)15·61	(—)13·18	(—)13·28
Total ..	(+) 1·92	(—) 0·83	(—) 7·86

1.44. It is noteworthy that the working of the Southern and South Central Railways had shown considerable deterioration during 1969-70 both over the previous year and the Budget anticipations. The position on the Eastern Railway had also belied the Budget Estimates.

[Paragraph 1(b), Report of the Comptroller & Auditor General for the year 1969-70 on Railways.]

1.45. According to the Audit paragraph the deficit in 1969-70 occurred mainly on four Railways, that is, Southern, North Eastern, North East Frontier and South Central Railways. Besides these, the working of the Eastern and Northern Railways also deteriorated during the year 1969-70 as compared to the previous year. The increase in gross receipts and working expenses in 1969-70 over 1968-69 on these six Railways and for the Railways as a whole is given below:—

(Figures in crores of Rs.)

Railways	Increase in Gross Traffic Receipts		Increase in working Expenses	
	Amount	%	Amount	%
Eastern	5·03	4·08	5·37	6·07
Northern	8·74	6·58	6·88	6·16
North Eastern	4·09	10·14	2·63	5·90
North East Frontier	2·84	8·03	2·50	5·48
Southern	2·48	3·14	4·23	5·36
South Central	1·98	2·60	8·13	13·25
All Railways	52·44	5·84	48·09	6·48

1.46. It will be seen that the increase in working expenses on Eastern, Southern and South Central Railways was much more than increase in receipts and that the increase in earnings on other three Railways was not adequate to meet the deficit on account of increase in working expenses.

1.47. The increase in cost of staff, fuel and repairs and maintenance during 1969-70 compared to expenditure in 1966-67 on the four deficit Railways *vis-a-vis* the increase for the Railways as a whole is as under:—

Cost	Railways as whole	Increase %	N.E. Rly.	Increase %	N.F. Rly.	Increase %
Staff						
1966-67	192·58		13·56		11·75	
1969-70	240·31	24·78	17·56	29·0	14·60	24·0
Fuel						
1966-67	110·17		7·50		4·59	
1969-70	151·17	37·2	10·01	33·7	5·88	28·10
Repairs & Maintenance						
1966-67	169·95		10·95		10·41	
1969-70	223·77	31·67	14·61	33·42	14·68	41·01

Cost	S. Rly	Increase %	S.C. Rly	Increase %
Staff				
1966-67	21·06		13·43	
1969-70	25·92	23·07	18·15	35·07
Fuel				
1966-67	12·61		8·66	
1969-70	18·24	44·66	11·42	31·87
Repairs & Maintenance				
1966-67	17·70		11·92	
1969-70	22·39	26·14	18·89	58·47

1.48. From the above it is seen that as compared to the increase in the cost of staff on the Railways as a whole the increase in the case of North Eastern Railway and South Central Railway was much more. Again the cost of fuel on Southern Railway was much more pronounced as compared to the figures of Railways as a whole. Similarly so far as the cost of repairs and maintenance is concerned the increase in 1969-70 as compared to the year 1966-67 was considerably higher than the overall average in the case of North Eastern, North East Frontier and South Central Railways.

1.49. As regards the efforts made to cut out wasteful expenditure the Chairman, Railway Board stated during evidence:

"In a large administration where we have a total expenditure bill of Rs. 700 crores to 800 crores, I would not be able to say that some wastages in some pockets here and there does not take place. But it is our earnest effort to eliminate it to the maximum extent possible. We are geared up for that and we have been making very serious attempts in this direction over the past three or four years."

1.50. **The Committee view with concern that in 1969-70 besides the three Railways namely Southern, North Eastern and Northeast Frontier which had been running into deficits, the working of the South Central Railway also showed a deficit. During the year under review the financial results of working of the Southern and South Central Railways showed marked deterioration as compared to the previous year. The increase in the working expenses on Eastern, Southern and South Central Railways was much more than increase in receipts and the increase in earnings on Northern, Northeast Frontier and North Eastern Railways was not adequate to meet the deficits on account of increase in working expenses. There is thus need for improving operations on these Railways as also of effecting economies.**

Audit Paragraph

1.51. The position of net revenue and its percentage to capital-at-charge, payments to General Revenues and additions to capital-at-charge for the four deficit years is given below:

(Amount in crores of Rs.)

Year	Net Revenue			Additions to Capital-at-charge (excluding new lines)	
	Amount	Ratio to Capital-at-Charge %	Payments to General Revenues	Current investment	Carry over after moratorium
1965-66	134·84	5·0	116·28	..	..
1966-67	114·12	4·0	132·39	136·28	12·38
1967-68	110·00	3·7	141·53	120·63	9·67
1968-69	142·81	4·6	150·67	103·58	24·31
1969-70	146·56	4·6	156·39	83·27	26·43

1.52. Despite sizeable improvement in the net revenue during the last years ended 1969-70 the working of the Railways continued to show large deficits due to steep increase in the payments to general revenues (the increase being Rs. 40.11 crores in four years) owing mainly to further additions aggregating to Rs. 517 crores to the capital-at-charge after 1965-66.

1.53. The break up of the actual outlay and physical achievements during the inter-plan period (that is 1966-67 to 1968-69) and during 1969-70 under important plan heads is given below:—

Plan Heads	Actual outlay (in crores of rupees)		Physical achievements	
	1966-67 to 1968-69	1969-70	1966-67 to 1968-69	1969-70
1. New Lines (including conversion) ..	56·21	10·70	1,092 Kms.	128 Kms.
2. Electrification	36·14	11·86	905 ,,	310 ,,
3. Rolling Stock	319·45	99·25		
(a) Locomotives			877 Nos.	220 Nos.
(b) Coaches (including E.M.U's.) ..			3,795 Nos.	1,497 Nos.
(c) Wagons			55,317(FW)	14,918 (FW)
4. Line capacity works (including doubling)	128·44	33·89	1,268 Kms.	293 Kms.
5. Track Renewals	87·89	21·18		
(a) Complete Tracks			4,627 Kms.	1,491 Kms.
(b) Rail Renewals			1,914 Kms.	593 ,,
(c) Sleeper Renewals			2,041 Kms.	684 ,,
6. Investment in Road Services ..	4·71	1·91		
7. Others	129·87	14·01		
Total ..	762·61	192·80		

[Paragraph 1(c), Report of the Comptroller & Auditor General for the year 1969-70 on Railways.]

1.54. From the figures given under the table in the Audit paragraph, it is seen that the ratio of net revenue to capital-at-charge, which showed a declining trend from 5% to 3.7% between 1965-66 and 1967-68, has shown an upward trend in 1968-69 and 1969-70 to

4.6%. It is also seen that the annual payments to General Revenues have increased from Rs. 116.28 crores in 1965-66 to Rs. 156.39 crores in 1969-70. This indicates that one of the reasons for the continuing deficits on Railways is the growing payments to General Revenues which arise as a result of additional capital investment.

1.55. During evidence the Committee pointed out that during the Third Plan period, Railways had spent Rs. 1,700 crores in the anticipation that the originating traffic would rise to 249 million tonnes by the end of the Plan. Against this the actual traffic that materialised was of the order of 203 million tonnes only which indicated that at the end of the Third Plan there was excess capacity available. Despite this during the three inter-plan years viz. 1966-67, to 1968-69, the Railways had made additional investment of Rs. 762 crores. The Committee enquired whether in view of the excess capacity already available investment in the subsequent 3 years could not have been avoided or reduced. In this connection, the Chairman, Railway Board stated: "Sir the excess capacity that was created was primarily in the eastern India Industrial belt. And that capacity cannot be transferred to the rest of the country. We have spent a lot of money on development of capacity, electrification and doubling and improvement of yards and improvement of signalling and all that. The expenditure that was incurred in the interplan period was examined very carefully.....the expenditure was by and large in the area of the North-South route and the route from Bombay to Madras and Bombay to Delhi. In the Western India and Southern India where a lot of foodgrains traffic and other essential traffic was bringing us revenue and where we were having difficulty in moving, we had to spend money to improve the line capacity and most of the expenditure in the inter-plan period has been either to complete the works which were started in the past or for works in this area. And even for the areas which are in progress, we are carefully examining whether some of them can be curtailed in scope or some of them could be deferred for the future."

1.56. The statement below gives details of works carried over from Third Plan and expenditure incurred thereon during 1966-67, 1967-68 and 1968-69:

(Figures in thousands of Rs.)

Railway	New lines			Conversions		
	1966-67	1967-68	1968-69	1966-67	1967-68	1968-69
Central	1,72,00	1,43,21	27,29	..	..	..
Eastern	14,13	12,46	22,00	..	..	..
Northern	4,11,12	2,45,03	1,50,60	..	..	..
N.E.	..	5,37	56	..	..	..
N.F.	2,16,07	80,90	6,93	6,97	1,02	1,50
Southern	3,31,00	2,69,00	4,14,00	(-) 1,60	..	..
S.C.	..	..	..	3,38,00	3,20,00	3,15,00
S.E.	2,83,70	2,47,31	5,73,13	..	..	..
Western	4,03,43	4,38,40	3,51,15	..	..	..
Total ..	18,31,45	14,41,68	15,45,66	3,43,97	3,21,02	3,16,50

Railway	Doubling and yard remodelling			Railway Electrification		
	1966-67	1967-68	1968-69	1966-67	1967-68	1968-69
Central	49,92	5,86,73	2,79,16	3,54,08	2,07,45	1,49,26
Eastern	3,10,91	77,00	52,91	..	..	..
Northern	93,61	15,50	(—) 8,94	..	..	..
N. E.	37,19	25,53	(—)227,27	..	..	..
N. F.	1,11,82	30,60	13,90	..	..	..
Southern	3,29,94	2,62,80	1,41,34	36,91	22,80	4,88
S.C.	2,90,48	2,37,36	2,75,65	..	..	..
S.E.	12,89,52	6,86,65	4,97,00	7,33,36	2,56,81	78,57
Western	1,29,30	87,92	69,58	..	..	..
Total ..	26,42,69	20,10,09	13,03,33	11,24,35	4,87,06	2,32,71

It is seen from the statement that out of the total capital outlay of Rs. 762.61 crores during the 3 inter-plan years only about Rs. 136 crores were spent on the works carried over from Third Plan. Thus a major portion of the capital investment in the inter-plan period was made on new works and acquisition of rolling stock etc.

1.57. The statement below gives the break-up of the actual outlay from 1966-67 to 1968-69 according to the source of financing namely capital, Depreciation Reserve Fund, Development Fund etc.:

Plan Heads	Actual Outlay 1966-67 to 1968-69				
	Cap.	D.R.F.	D.F.	OLWR	Total
1. New Lines (including restoration)	55·80	0·42	— 0·04	0·03	56·21
2. Electrification	35·06	0·53	0·48	0·07	36·14
3. Rolling Stock	181·98	137·28	0·11	0·08	319·45
(a) Locomotives					
(b) Coaches (including EMUs) ..					
(c) Wagons					
4. Line Capacity Works (including doubling)	98·73	9·27	11·32	9·12	128·44
5. Track Renewals	—0·02	87·22	0·39	0·30	87·89
(a) Complete tracks ..					
(b) Rail Renewals					
(c) Sleeper Renewals					
6. Investment in Road Services ..	4·71	..	..	..	4·71
7. Others	41·84	19·18	51·43	17·42	129·87
Total ..	418·10	253·90	63·69	27·02	762·71

1.58. From the above it is seen that during the period 1966-67 to 1968-69 out of a total investment of Rs. 418.10 crores on capital account, Rs. 181.98 crores were invested on Rolling Stock while Rs. 98.73 crores were spent on Line Capacity Works.

1.59. The Committee desired to know whether during the three inter-plan years any restriction was imposed on the acquisition of rolling stock etc. The Financial Commissioner for Railways stated during evidence, "If I remember, for one year, no wagons on additional account were ordered. I think for 1966-67, it was skipped. Every year, we have got a wagon ordering programme. For one year we skipped. The expenditure has to be incurred on procuring rolling stock of all types—diesel and electric locomotives which are now being manufactured in the country and for passenger coaches for which there is a crying need. The number of passengers is increasing, the lead has been increasing all the time. When we consider the volume of traffic in the international Railway statistical practice, there is a practice of adding the passenger kilometres to net tonne kilo metres and treating the total as traffic units. If you look at our traffic on this basis you will find that traffic units are increasing all the time, though not to the extent we anticipated in the Plan."

1.60. **The Committee note that even though the position of net revenues as a ratio to capital-at-charge has shown an upward trend in 1968-69 and 1969-70, the deficits are increasing primarily as a result of growing payments to General Revenues arising from additional capital investment, of which the current investment constitutes a major portion. The Committee have repeatedly emphasised the need for great selectivity in incurring capital expenditure on Railways. If the additions to capital are not made with a view to ensuring overall remunerativeness, the deficits may grow. The Committee would therefore like that all investment proposals should be thoroughly scrutinised so as not to accentuate the difficult financial position of the Railways.**

Investment in Road Services

1.61. From the break-up of the actual outlay during the inter-plan period, as given in the Audit paragraph, it is noticed that between 1966-67 to 1968-69 Railways made an investment of Rs. 4.71 crores in Road Services and additional Rs. 1.91 crores were invested in the year 1969-70. At the instance of the Committee the Railway Board have given the following list of Road Transport undertakings in which investments have been made by the Railways after 1965-66. The total capital contribution made in these corporations as on 31st March, 1971 is also indicated:

(In lakhs of Rupees)

Serial No.	Name of the State Road Transport Corporation	Amount of Capital invested by Central Government (Railways)		Total Investment made after 1965-66
		As on 31-3-66	As on 31-3-71	
1	2	3	4	5
1.	Andhra Pradesh State Road Transport Corporation	222·56	247·89	25·33
2.	Bihar Do.	139·47	241·80	102·33
3.	Gujarat Do.	422·71	510·21	87·50
4.	Kerala Do. ..	75·00	262·67	187·67

1	2	3	4	5
5.	Maharashtra State Road Transport Corporation ..	314·28	535·57	221·29
6.	Madhya Pradesh Do.	139·67	287·20	147·53
7.	Mandi Kulu Road Transport Corporation ..	12·70	12·70	Nil
8.	Mysore State Road Transport Corporation ..	288·33	341·23	52·90
9.	North Bengal State Transport Corporation ..	15·00	35·00	20·00
10.	Orissa Road Transport Co. Ltd.	6·00	6·00	Nil
11.	Pepsu Road Transport Corporation	24·68	41·42	16·74
12.	Rajasthan State Road Transport Corporation ..	50·00	80·00	30·00
13.	Assam State Road Transport Corporation (set up in 1970-71) ..	Nil	25·00	25·00
	Total ..	1,710·40	2,626·69	916·29

1.62. Explaining the rationale behind the Railway's investment in the Road Transport Undertakings, the Financial Commissioner for Railways informed the Committee during evidence: "The Committee on Transport Policy and Coordination which was presided over by a Planning Commission member thought that some road routes should be developed by the States. For instance, there may be some routes where the Railways are not able to serve and these routes should be developed by the Road Transport Corporation. When there are proposals for having services competing with Railways, our Directors may suggest that they can run in certain other routes in order to have this coordination. It was suggested first that railway should invest upto 25 per cent of the capital. The Capital is mostly for acquiring trucks, buses and other equipments. Perhaps they may also spend something on the buildings. Now the State Road Transport Corporations are finding it more difficult to raise money from the State Governments. So, they have suggested increasing the percentage of Railway contribution first to $33\frac{1}{3}$% and now to 49 per cent. We were all made to give in to the State Transport Ministers. At the last meeting of the Transport Department Council in Srinagar in August, 1971, it was decided to increase the share of investment by the Central Government to 49%."

He continued, "These are the State Road Transport Corporations. They are running mostly passenger services. So, except in certain cases where they are running long distance services, they are, not really competing with the Railways. In certain States, they take the advice of our representatives very seriously and give weight to it, but in certain other States they just over rule our representations on the Board of Directors."

1.63. The Committee desired to know the specific action taken to ensure coordination between rail and road services with a view to reducing/eliminating either the rail or the road services so that there is no unnecessary duplication. In a written note, the Railway

Board have stated, "The railway representatives nominated on the Board of Directors of the State Road Transport Corporations generally consist of two Railway Officers having adequate commercial and financial experience. The main functions of these representatives are to ensure that the Corporation work efficiently on commercial principle in accordance with the provisions of the Road Transport Corporation Act, 1950, the objectives of rail-road coordination are achieved and the activities conform to the general policy in force. They participate in the meetings of the Board of Directors of the Corporation and offer their views and suggestions in regard to different aspects of working, scrutinise the expansion programmes of the Corporation so that the introduction of new services do not take place on routes where the Railways already have adequate transport capacity. They also give suggestions for adjusting the timings of buses with train services, rationalisation of bus schedules, etc. so that the rail and bus timings are coordinated to the extend feasible. The Railway representatives being in minority are, no doubt, not in a position always to force a decision, but by putting forward their case, they can secure rail-road coordination to a great extent than would have otherwise been possible.

It may also be observed that the expansion programmes of the Corporations are undertaken as a part of general road transport policy in the country under the current Five Year Plans, it is, therefore not feasible for the Railways to secure a position for themselves in which such programmes will have no repercussions on rail traffic at all.

Under the circumstances, therefore, what the Railways can hope to achieve in such cases is that in matters of details they can induce the Corporations to make such changes as would avoid accentuation of rail-road competition."

1.64. As regards the remunerativeness of the Railways' investment in these undertakings, the Financial Commissioner for Railways stated during evidence, "I would submit that on the entire amount we are getting 6.25 per cent return out of which we are paying 6% dividend to the general revenue. We are really acting as a kind of middleman. The only thing is that the Planning Commission wanted to invest this money in the State Road Transport Corporations to help them. Only whether they should do through the Ministry of Shipping and Transport or some other body or the Ministry of Railways is the question. Perhaps they thought that if the Ministry of Railways gave the money, it would help us and ensure proper rail-road coordination. This arrangement is working well in two or three States. But in a majority of the States, it is not working well. But it cannot also be said that we are losing out of this investment because it comes out from our capital which we have borrowed from general revenues. We get an interest of 6.25 per cent from the Road Transport Corporations and we give 6 per cent dividend to the general revenue."

1.65. To a question whether Railways had any difficulty in realising the interest from any of these undertakings, the witness replied, "We have had difficulties in recovering the interest only in the case of one or two corporations because some of them are not

functioning satisfactorily. We are getting the interest alright except in one or two cases. We do not get a share of the profits in any case."

1.66. In a written note on the subject, the Railway Board have stated; "Of the 13 State Road Transport Corporations/Undertakings functioning at present in different States, with financial participation of Railways, the Corporations in the States of Bihar, Kerala, Madhya Pradesh, Himachal Pradesh (Mandi Kulu) and West Bengal (North Bengal) are running at losses. Railways, however, do not share the profit or loss of the Corporations. What they get is a fixed return on their capital invested in these Corporations in the form of interest under Section 28(1) of the Road Transport Corporations Act, 1950. The present rate of interest is 6.25 per cent. Some of the Corporations (viz. Mandi Kulu, North Bengal, Andhra Pradesh and Madhya Pradesh), due to their depleted financial position have been finding it difficult in recent years to pay interest to the Railways on their share of capital contribution. In respect of such Corporations and with a view to avoid heavy accrual of outstanding interest, interest due to the Railways is being adjusted against further capital contribution which the Railways are called upon to make in them from year to year to match the contribution of the State Governments. In respect of Mandi Kulu Road Transport Corporation in Himachal Pradesh, which has, however, been persistently defaulting in payment of interest, it has been decided not to make any further capital contribution."

1.67. The Committee called for information regarding the new road services introduced by each of the Transport Undertakings from 1965-66 onwards which run parallel to the Railways and which are detrimental to the earnings by Railways. The Railway Board furnished the following note:—

> "The following new road services have been introduced by the Mysore State Road Transport Corporation from 1965-66 onwards, which run parallel to the Railways and which may be considered detrimental to the earnings by Railways:—

	Distance (in Kilometres)	
	By road	By rail
(i) Bangalore-Tumkur	76	76
(ii) Bangalore-Mandya	99	94

1.68 It may be observed that just because the termini of a road service coincides with the rail heads, the service cannot be considered as running parallel to the railways, as the buses go into the interior and serve places far away from the railway lines. Besides, with the policy of progressive nationalisation of privately owned road transport services, taking over the services already running on a particular route by the Corporations cannot be termed as constituting a new service."

1.69. During evidence the Committee enquired whether Railways' association with these undertakings had resulted in reducing rail-road competition. The Chairman, Railway Board stated in reply: "In some States there is some influence. I remember due to our membership of the Road Transport Corporation in Maharashtra last year, the road licensing authority was discussed from giving road permits to trucks where they would have competed with the railway. It came in the papers and was widely publicised. But this was done only in Maharashtra where the Minister himself took some interest in the matter."

1.70. As to the criteria followed in determining the States where Railways make the investment, the Financial Commissioner for Railways informed the Committee that, "It depends upon the capital raised by the States. Our share is a percentage of theirs."

1.71. **The Committee find that about Rs. 26 crores have been invested by the Railways in various State Road Transport Corporations primarily with a view to regulate rail-road coordination. Even though the Railways are getting adequate return on their investment in the form of fixed rate of interest, the aim of rail-road coordination has not been achieved. The basic reason for this is that the representation of the Railway Board on the Boards of Directors of these Undertakings is not effective enough. The Committee recommend that the Railway Board should in concert with the Ministry of Transport and State Governments reveiw the position to devise methods for making the Railways' participation more effective.**

Shortage of wagons

1.72. In the course of evidence the Financial Commissioner for Railways informed the Committee that because of non-materialisation of traffic to the extent expected during the inter-plan years (1966-67 to 1968-69) the wagons procurement programme was drastically cut in one year. Referring to this statement by the Financial Commissioner for Railways, the Committee enquired how the availability of wagons for the movement of coal was affected in the year 1969-70. The Chairman, Railway Board explained: "Due to the law and order situation in the eastern India, wagon release had slowed down. Actually, we had worked out on the basis of certain wagon turn round, but due to the difficulties in eastern India, where 60% of our loading is located, the slowing down has affected the availabilty of wagons in the rest of the country."

1.73. He continued "Sir, we can move only under reasonable infrustructure and reasonable law and order conditions:. We cannot substitute for things to be done by other parties."

1.74. In reply to a question, the witness added: "We are making all efforts now and with better activity by the West Bengal Government and because of the deployment of our special protection force, we have been able to improve the position and the coal loading has gone up from 5200 to 6100. We expect to make further improvement."

1.75. As regards the supply position of wagons the Chairman, Railway Board deposed: "Till August, 1970, there was no difficulty in wagon supply. Actually a large number of programmed trains for movement of coal for brick kilns for State Governments were cancelled. Thereafter, we had difficulty in the coal fields with thefts, unlawful activities etc."

1.76. He continued "Purchase of wagons is to be considered in the context of the requirement of wagons based upon a reasonable turnround. If the turnround goes up due to difficulties over which we have no control, it would be over-capitalising to purchase more wagons, because wagons would be lying idle. We used to have in the past wagons which were stabled in the monsoon season as surplus and we were criticised for that, and were asked to regulate our purchases to see that we do not have idle wagons. In the month of September, we tried our very best to step up the coal loading and we did succeed in stepping up the coal loading, but 11,000 wagons that had been supplied to the collieries were detained and in one day that is allowed to them about a thousand wagons were pulled back empty. It is not as of the shortage of wagons only is there; the collieries have their own difficulties, and they want supplies to be made in a regulated way to exactly suit them, which is not possible in a country where we have so many constraints to be looked after."

1.77. The Committee desired to know the specific steps taken by the Railways since August, 1970 for relieving the shortage of wagons for the movement of coal. In this connection the Chairman, Railway Board stated: "We tried our very best in the first instance by talking to the West Bengal Government and to the local agencies and when we did not succeed, a high-level committee meeting was organised at which the Minister of State for Home Affairs and the Minister of Steel and two Ministers from the West Bengal Government were present, and certain steps were to be taken by the authorities concerned to see that an improvement is effected. It is consequent upon that we have denuded the whole country of the RPF and deployed them and concentrated them in the West Bengal area. Simillarly, the West Bengal Government also has made efforts and this has enabled us to improve, and I am confident that we will be able to improve further."

1.78. In a written note furnished at the instance of the Committee, the Railway Board have stated: "Movement of coal from West-Bengal-Bihar fields was normal upto August, 1970. After the peak loading achieved in 1969-70, there was some shortfall in loading from Bengal-Bihar fields during the first five months of 1970-71 upto August 1970 caused primarily by the paucity of demands, particularly for the brick industry. Coal loading from these fields suffered a serious drop from September 1970 only at first due to the strike of Carriage & Wagon staff on Eastern Railway and thereafter due to the deteriorating law and order conditions in West Bengal and the various anti-social activities. These anti-social activities continued to affect coal loading from West Bengal-Bihar fields upto July, 1971.

In August, 1971 a concerted drive was instituted to improve coal loading which resulted in substantial improvement in loading during August 1971 as compared to the previous months."

1.79. The following statement furnished by the Railway Board gives the figures of loading from Dhanbad sphere and from West Bengal-Bihar fields as a whole from August 1970 to February 1971:

Daily average coal loading from Dhanbad Sphere and West Bengal-Bihar Fields.

	From Dhanbad Sphere	From Bengal Bihar fields
August 1970	2,402	5,905
September 1970	1.885	4,763
October 1970	2,142	5,553
November 1970	2,165	5,537
December 1970	2,267	5,590
January 1971	2,118	5,473
February 1971	1,889	5,222
March 1971	2,331	5,600
April 1971	2,382	5,555
May 1971	2,223	5,512
June 1971	2,003	5,139
July 1971	2,207	5,310
August 1971	2,442	5,970
September 1971	2,234	5,522
October 1971	2,213	5,763
November 1971	2,267	5,725
December 1971	2,276	5,506
January 1972	2,420	5,764
February 1972	2,520	5,911

1.80. In this connection the Railway Board have stated: "The improvement achieved in August, 1971 could not, however, be sustained in September, 71 due to the dislocation of electric train services on Eastern Railway caused by the burning of transformers at Kumardhubi Sub-Station of West Bengal Electricity Board. Besides, extensive breaches, floods and rains etc. dislocated rail operations on North Eastern and N.F. Railways upto the middle of October, 71, causing hold up of nearly 10,000 loaded wagons on their way. Operation in November and December 1971 and the first half of January 72 suffered the heavy strains of moving foodgrains and other essential commodities for the refugees in North Bengal and Assam regions and the heavy special moves for defence personnel and equipment as also the prisoners of war and refugees.

1.81. Even though the pressure of special moves is still not over but with the special drives instituted to improve the mobility on Eastern and South Eastern Railways the overall loading from West Bengal-Bihar fields improved from about the middle of January 1972. The overall average loading from these fields improved to a level of 5764 wagons per day in January 1972 against 5506 in December 1971 and an average of 5484 wagons per day from September,

1970 to December 1971. In February 1972 loading improved further to about 5911 wagons per day plus 93 in Singrauli, an improvement of about 24% over the loading achieved from September 1970 to December 1971."

1.82. **The Committee note that the availability of wagons for movement of coal deteriorated considerably from September, 1970 and this position persisted till about July 1971. The deterioration has been attributed to a strike for some days on the Eastern Railway and the unsatisfactory law and order conditions in the West Bengal area. These difficulties were, however, got over as a result of the concerted drive instituted by the Railways in cooperation with the State Government and consequently the position returned to normal from August, 1971 onwards. The Committee feel that efforts to restore normalcy in the movement of coal should have been initiated much earlier. For the future the Committee would suggest that particular care should be taken at all levels to ensure that the movement of coal does not suffer because of non-availability of wagons.**

Operating Ratio

Audit Paragraph

1.83. The general deterioration in the operating ratio of the Railways which is the percentage of Working Expenses to the Earnings during 1966-67 and 1967-68 was commented upon in para 4 of the Audit Report, Railways, 1969. The Public Accounts Committee (1969-70) reiterated in para 1.65 of their 116th Report (Fourth Lok Sabha) their earlier suggestion to carry out periodical reviews of the working of the various Railways from the point of view of the overall financial results as the committee felt that such reviews would enable the Railway Board to identify promptly the areas where unwarranted increases in expenditure occurred and to take effective steps to control them. The Ministry of Railways informed the committee in October, 1970 that the suggestion was under the consideration of the Ministry.

1.84. The operating ratio of the Southern, South Central and Western Railways showed further deterioration during 1968-69, and 1969-70, the deterioration being significant on the South Central Railway. On the Eastern and Northern Railways there was considerable improvement during 1968-69 but this trend was reversed during 1969-70 as shown below:—

Railways	(Per cent)		
	1967-68	1968-69	1969-70
Eastern	82·80	78·38	79·70
Northern	90·75	83·40	83·45
Southern	98·70	99·69	101·54
South Central	79·31	80·62	88·70
Western	76·93	77·09	77·27

1.85. The increase of 8.08 during 1969-70 on the South Central Railway was due mainly to an increase of Rs. 7.86 crores in the working expenses of which Rs. 3.36 crores occurred under repairs and maintenance, Rs. 1.68 crores on cost of fuel and Rs. 1.10 crores on operation other than staff and fuel. Against this, the increase in revenue receipts amounted to Rs. 1.90 crores only which came mainly from the goods traffic.

1.86. The Administration explained that the incerase in the operating ratio was due to dislocation of traffic caused by cyclone and floods which hit the coastal areas of Andhra Pradesh in May, 1969 which resulted in loss of revenue (Rs. 1.70 crores) from passenger and goods traffic on the one hand and an increase of Rs. 2.01 crores in the working expenses due to restoration of damages to bridges, track and buildings etc.

1.87. Even after giving due allowance to the loss of revenue and increase in wroking expenses caused by cyclone the operating ratio for 1969-70 worked out to 84.30 per cent an increase of 3.68 per cent over 1968-69.

1.88. The increase in the operating ratio during 1969-70 on the Southern and Eastern Railways was also due to the increase in working expenses being more than that of the earnings. The bulk of the increase in working expenses on the Southern Railway occurred under repairs and maintenance and cost of fuel while on the Eastern Railway the increase occurred under repairs and maintenance and on operation other than staff and fuel.

[Paragraph 2, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

1.89. The statement given below shows the percentage of working expenses to earnings (operating ratio) of the Indian Railways for the years 1967-68, 1968-69 and 1969-70 (shown in justa position):

Railways	1967-68	1968-69	1969-70
Central	79·74	79·30	78·88
Eastern	82·80	78·38	79·70
Northern	90·75	83·40	83·45
North Eastern	110·70	109·51	104·49
Northeast Frontier	132·78	140·86	133·81
Southern	98·70	99·69	101·54
South Central	79·31	80·62	88·70
South Eastern	67·95	65·22	62·62
Western	76·93	77·09	77·27
All Indian Government Railways	84·55	82·60	82·66

1.90. From the above it is seen that in the case of North Eastern and Northeast Frontier Railways which have very high operating ratios, there is a declining trend. In the case of Southern, South Central and Western Railways, however, the position is steadily deteriorating in that their operating ratios are constantly rising over

the years. The operating ratios of Eastern and Northern Railways have also gone up in 1969-70 when compared to the figures for 1968-69.

1.91. During evidence the Committee enquired about the specific reasons for the deterioration in the operating ratios of the five Railways *viz.* Eastern, Northern, Southern, South Central and Western. The Financial Commissioner, Railways, stated: "Last year also, the Committee went into this, particularly re: Southern Railway, North Eastern and NF Railways. We explained the handicaps of the Railways, more metre gauge lines, more passenger traffic than goods traffic, severe competition from roads and also the situation at the extremity of the country, due to which they do not get the benefit of through traffic. A railway like South Central is able to get not only originating traffic but also through traffic whereas Southern Railway gets only the originating traffic. Take the GT. The rakes are maintained by the Southern Railway but they get credit for only the earnings from Madras to Gudur and they have to incur maintenance and other expenditure. Likewise, Railways in the extremities cannot show the same results. The division of zones has been made on the basis of administrative convenience not as self-contained entities. For instance, before the formation of the South Central Railway, Southern Railway was in a much better financial position because it ran upto Vijayawada. Now all these earnings are lost to the Southern Railway while it has the same overheads on workshops, terminal facilities etc.

1.92. As to the question why it has become worse particularly in the case of South Central, it is partly because of the floods and partly because they have to pay higher hire charges for the wagons .....The Eastern Railway had an operating ratio of 79.70 in 1969-70. Since then the operating ratio has worsened. It has become 93 per cent in 1970-71. On the other hand in the case of the Southern Railway, the operating ratio has improved from 101.54 (in 1969-70) to 98.44 (in 1970-71). It has come down by three per cent which is a very significant gain in the Southern Railway. In the South Central Railway, it has come down by 5.7 per cent".

1.93. Explaining the reasons for the marked deterioration in the operating ratio of South Central Railway, the Financial Commissioner, Central Railway, stated: "With regard to the South Central Railway, first there were floods, it was also referred to in the Audit Report. That is about Rs. 2.01 crores. Flood damage has a secondary effect. Instead of getting coal from Singareni collieries by the shortest route, they had to bring it by a circuitous route and the railway had to pay higher freight charges. This came to Rs. 0.87 crores.

Then there was the question of wagons. When a railway holds wagons which do not belong to it, it has to pay hire charges. This was increased from Rs. 2.50 per day to Rs. 7 as a result of the decision taken at the Conference of all the railways. The South Central Railway have no wagons of their own and as a result of this they have to pay for whatever wagons they use and it came to about Rs. 30 lakhs more on this account.

Then, there was an increase in the cost of coal. The price of coal has gone up. That came to about Rs. 21 lakhs. On repairs and maintenance, as I have already said, it was due to flood damage. That is why, it has gone up."

1.94. When the Committee pointed out that even after giving due allowance for the loss of revenue and increase in working expenses caused by cyclones etc. there was a noticeable increase in the operating ratio, the witness added, "A small part of this 3.68 per cent is due to increase in freight charges which they have to pay on account of coal which they used formerly to get direct from Singareni but which they had to get through a circuitous route. This was a secondary effect. Another aspect was the increase in the cost of coal by Rs. 21 lakhs.

We have to pay more claims for compensation, we tried to make a special drive for reducing the claims for compensation. One of the criticisms against the Railways is that not only sometimes the goods are lost but that even the payment of claims of compensation takes a lot of time. So, we made a special drive in that direction, and as a result of it, they paid Rs. 37 lakhs more."

1.95. The Committee enquired how was it that the modernisation of operations like electrification, dieselisation, improvement in capacity, yards, etc. and improved signalling was not reflected by an improvement in the operating ratio of these Railways. To this the Financial Commissioner, Railways, replied: "If we watch over a period of time, the efficiency indicators will show that such modernisation has paid valuable dividends. For instance, if we compare the figures of 1950-51, 1965-66 and 1969 70, we find that the traffic units per route kilometre has gone up and the number of wagons per unit of million net tonne kilometres has come down. From year to year, there have been variations. But over a long period of time, they have paid good dividends."

1.96. The Committee drew attention to recommendation contained in para 1.65 of their 116th Report (Fourth Lok Sabha) and enquired whether any periodical reviews of the working of the various Railways had been undertaken. The Financial Commissioner Railways informed the Committee, that, "Actually, what we are doing now is, we are having a monthly review of the progress of receipts and expenditure and we immediately alert the General Managers on the points which should be attended to. Last year, we took special steps in respect of fuel and repairs and maintenance. On fuel, it had good effects. We brought down the fuel expenditure, and we will be having the same control this year also."

1.97. **The Committee regret to observe that the operating ratios of the Southern, South Central and Western Railways are steadily deteriorating from year to year. The North Eastern and North East Frontier Railways which have very high operating ratios are, however, showing some improvement in that their operating ratios are gradually coming down. Whereas it may not be quite appropriate to compare the working results of one Railway with another because of the circumstances peculiar to each Railway, the Committee feel that**

comparison of performance of each Railway from year to year should reflect the result of measures taken to effect improvements and economies in the working of the Railways. The Committee would therefore like the Railway Board to continuously review the working of each Railway and take prompt remedial measures to augment earnings by improving quality of service and effecting all possible economies by more efficient operations.

Receipts

Audit paragraph

1.98. Unlike the previous year, the increase in gross receipts occurred mainly under passenger earnings (Rs. 5.86 crores) and sundry other earnings (Rs. 4.13 crores) partly off-set by short-fall in goods earnings (Rs. 5.72 crores) as shown below:—

(In crores of rupees)

Particulars	Budget	Actuals	Variations
1. Goods earnings	600·00	594·28	(—)5·72
2. Passenger earnings	273·00	278·86	(+)5·86
3. Other earnings (including suspense and miscellaneous receipts)	74·32	78·45	(+)4·13
Total Receipts ..	947·32	951·59	(+)4·27

1.99. For the first time in recent years the Budget estimates for 1969-70 did not envisage any increase in fares and freight. Certain changes were, however, made in the freight charges during the year like the collection of transhipment charges on all goods, the upward revision of wagon load classification of a number of items of grains and pulses; the levy of higher freight charges on non-programmed salt etc., which had the effect of bringing in more revenue. In the Explanatory Memorandum on the Railway Budget for 1970-71 it was stated that these changes would bring and an additional revenue of Rs. 3.00 crores during 1969-70.

1.100. The Budget estimates of goods earnings included additional earnings of Rs. 34.00 crores anticipated to accrue from the increase of about 9 million tonnes in the originating revenue earning traffic over 1968-69. This growth of traffic, however, did not fully materialise as the total originating revenue earnings traffic actually carried during the year was 174 million tonnes—an increase of only 3 million tonnes over that carried in the previous year. While presenting the Budget for the subsequent year (1970-71) in February, 1970 it was explained that the shortfall was mainly in steel plant traffic and in general goods.

1.101. At the time of presenting the Revised estimates for the year alongwith the Budget for the following year in February, 1970 it was explained that according to indications then available the

additional traffic might be only about 5.5 million tonnes. The Revised estimates of goods earnings were, therefore, placed at Rs. 10.00 crores less than the Budget after taking into account the additional earnings of Rs. 3.00 crores anticipated to accrue from certain adjustments in the freight as already explained above. Against a shortfall of six million tonnes or about 67 per cent in the originating revenue earning goods traffic over the budgetted increase, the actual shortfall in goods earnings was Rs. 5.72 crores or 16.8 per cent only.

1.102. The estimate of passenger earnings assumed a three per cent increase in passenger traffic over the previous year. Later, at the time of presenting the Revised estimates for the year in February, 1970 alongwith the Budget for the following year it was explained that consequent upon the amendment of Railways Act in June, 1969 prescribing heavier penalties for ticketless travel, earnings from passenger traffic had shown an improvement from July, 1969 and that it would be six per cent higher than the previous year. The Revised estimates of passenger earnings were accordingly placed at Rs. 9.25 crores more than the Budget. The actual passenger earnings however exceeded the budget by Rs. 5.86 crores only. The total originating passengers carried during the year was 2,338 millions as against 2,213 millions carried in the previous year.

[Paragraph 3, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

1.103. The Budget estimates for 1969-70 envisaged an additional revenue earnings traffic of 9 million tonnes over that achieved in 1968-69. The actual addition to the total originating revenue earning traffic during the year was of the order of only 3 million tonnes. The details of the shortfall as against targets under broad commodity groups as furnished by the Railway Board are shown below:—

(In million tonnes)

Commodity head	Traffic anticipated in 1969-70	Actual materialisation	Shortfall
1. Revenue earning coal	53·80	53·0	0·80
2 Raw materials to steel plants	19·30	16·5	2·80
3. Finished products from steel plants (including secondary movements)	7·30	7·1	0·20
4. Iron ore of export	9·90	8·8	1·10
5. Other general goods	80·50	88·4	1·10
	170·80	173·8	6·00

1.104. It is seen that the traffic to and from steel plants fell short by 3.0 million tonnes over that anticipated in the Budget for 1969-70. The other shortfalls are under coal, iron ore for export and other general goods.

Steel

1.105. Giving reasons for the shortfall in the steel traffic in 1969-70, the Railway Board have stated as under: "Production of the different Steel Plants in the year not only did not come up to anticipation, but fell short of the level reached in the previous year. This could not be visualised by the Railways. The Steel Plants suffered from various internal difficulties and labour problems. As a result of this low traffic, a large number of special type Hopper wagons intended for transport of raw material and some bogie rail trucks intended for transport of finished products idled. Net shortfall against anticipation on account of Steel Plants alone worked to 4.0 million tonnes against the overall shortfall of 6.3 million tonnes."

1.106. The following figures of rail movement and total production of steel have been extracted from "A Review of the performance of the Indian Government Railways (May, 1971)". The percentage increase in these figures are also given:—

Year	Production & Imports (thousands tonnes)	Increase	Rail Movement (thousand tonnes)	Increase %
1968-69	7,584	..	9,652	..
1969-70	8,279	9·15%	9,980	2·36%

1.107. As would be seen from the above, during 1969-70 there was an increase of more than 9 per cent in the total production and import of steel over the year 1968-69 whereas the rail movement has increased by 2 per cent only. The Committee enquired about the reasons for the sharp decline in the relative share of the railways in the movement of steel traffic. In a written note, the Railway Board have stated: "Against 6.8 million tonnes of pig iron and finished products from Steel Plants transported by the Railways during 1968-69 the movement in 1969 70 was 7.1 million tonnes. Traffic lifted from the Steel Plants, therefore, went up. The left over of moveable stock in different steel plants at the end of 1969-70 was also less than that at the end of 1968-69.

The item (iron and steel) in the 'Review of Performance of Indian Government Railwys (May, 1971). Table VIII' include not only pig iron, finished products and semi-finished products from Steel Plants and imported steel, but also secondary movements from foundries and rolling mills, movement from dumps and carry-over stock etc. This is why the percentage of movement had been generally more than 100 per cent of production and imports. The latter category of movements are variable depending on the pattern of trade. Movement of imported steel by rail also depends on the quantity required for distribution locally in the big port towns by

means other than Railways. Moreover, as explained in the foot-note to the same table, the production data of industrial goods relate mostly to calendar years whereas the rail movement figures relate to the financial year. It will not, therefore, be realistic to draw any conclusion about any increase or decrease in the Railways' share in the movement of steel traffic on the basis of the rail movement component of the production and imports. A better guide would be to judge the performance of the Railways from the lifting of pig iron and finished products from the different Steel Plants.

Movement of pig iron and finished products from the different Steel Plants as also the clearance of imported steel always receive the highest priority and no pains had been spared by the Railways to effect full clearance."

1.108. As regards the reasons for the shortfall in the traffic of coal, iron ore for export and other general goods the Railway Board have stated:

Coal

"There was a shortfall of 1 million tonnes against target in coal for Steel Plants (12.6 million tonnes against anticipation of 13.6 million tonnes). This shortfall was bridged to some extent by additional loading of 0.2 million tonnes in coal for other public consumers (34.3 million tonnes against anticipated of 34.1 million tonnes). The net shortfall in revenue earning coal was, therefore, 0.80 million tonnes.

It was not possible to make up more in coal traffic for other consumers due to very low demand for soft coke on Eastern Railway during May and June 1969 (about 260 wagons per day against a normal of about 400) and very low demand for brick-burning coal during January to March 1970 on account of heavy accumulation of stock at destinations. During December, 1969 to March, 1970, 336 sponsored rakes for brick-burning coal representing about 25,000 wagons were cancelled by the parties."

Iron Ore for export

"On the basis of the forecast received from the M.M.T.C., the Railways fixed the target at 9.9 million tonnes for 1969 70 against 8 million tonnes transported in 1968-69. Actual materialisation was, however, 8.8 million tonnes. This shortfall of 1.1 million tonnes was mainly concentrated over three sectors as under:—

Ex. Bailadilla to Vizag Port	0·71 m. tonnes
Ex. Kiriburu to Vizag Port	0·11 ,,
Ex. Bellary-Hospet to Madras Port	0·32 ,,
	1·14 ,,

The highest shortfall was from Bailadilla mainly due to the inability of the N.M.D.C. to offer the ores as forecast on account of mining difficulties. Loading had also to be suspended from 6th to

16th February 1970 on account of tippler at Vizag Port shut down for fixing Bucket Reclaimer and in March 1970 loading was regulated due to heavy accumulation of ores at the Port for inadequate shipping. Loading from Kiriburu had also to be regulated for the same reasons.

Loading from Bellary-Hospet to Madras Port had to be regulated in April, October and November 1969 and January 1970 due to heavy accumulation at the Port on account of inadequate shipping and lack of adequate ores at the rail-head during February and March 1970. The strike in Madras Port in June, July and November 1969 also affected despatch.

Movement from Bellary-Hospet area to metre gauge Ports on the Western Coast were also affected off and on, on account of inadequate ores. The Bargemen strike at Goa Port in May 1969 suspended movement for nearly a fortnight."

Other General goods

"Under this head, there was a drop of 0.8 million tonnes in foodgrains as compared to the traffic lifted in 1968-69. This was mainly due to drop in the quantum of imported foodgrains from 4.25 million tonnes in 1968-69 to 2.61 million tonnes in 1969-70. Transport of indigenous foodgrains went up from 11.61 million tonnes in 1968-69 to 12.52 million tonnes in 1969-70, but could not make up for the shortfall in transport of imported foodgrains. Practically, the entire portion of imported foodgrains are to be transported by rail whereas the percentage of indigenous foodgrains transported by rail is much lower (hardly 14 per cent) due to a lot of local dispersal and short-lead movements by road.

The movement of other general goods was seriously affected due to very low level of outstanding demand during a number of months in the year as may be seen from the following figures:—

Month	Outstanding Broad Gauge	Registrations on Metre gauge
July 1969	18,893	8,549
August 1969	8,307	5,585
September 1969	9,890	6,849
October 1969	10,400	8,825
November 1969	13,526	8,150

Movement of general goods was also seriously affected during the year on account of the following adverse features:—

(1) Serious dislocations to traffic on Eastern and Northeast Frontier Railways on account of various anti-social activities due to deterioration of law and order position.

(2) Repeated dislocations in the traffic on South Central Railway on account of Telengana and anti-Telengana agitations and subsequently from Feb. 1970 due to Mysore-Maharashtra border troubles.

(3) Serious dislocations in traffic on Northern Railway on account of agitations in Punjab and Haryana on Chandigarh issue during January and February 1970.

(4) Dislocations in the traffic on Northeast Frontier Railway on account of repeated agitations in Assam on the issue of Second Oil Refinery during July to September, 1969.

(5) Communal troubles in Ahmedabad area in September, 1969.

(6) Serious breaches on account of cyclone and heavy rains on South Central Railway from the middle of May to the end of June, 1969.

(7) Extensive breaches on Western Railway broad gauge main line in Bombay Division during August and September, 1969.

Outstanding demand for wagons at the end of the financial year 1969-70 was only 26,482 on the broad gauge and 9,334 on the metre gauge representing only a day's loading."

1.109. During evidence the Financial Commissioner for Railways explained that "In 1969-70 we had expected an additional traffic of 9.10 millions which was justified, because there was an upsurge in the economy in the closing months of the previous year 1968 69. For the last three months it was three quarter million tonnes a month i.e. 9 million tonnes in one year. Upto August 1969 it was going in accordance with that rate. Actually, in the General Managers' Conference, we were even thinking of raising the target from 9.10 millions, but what happened was that in August 1969 there was a fall from that rate. Even in December 1969 we had an increase of 5.5 million tonnes. But in January, February and March 1970 there was actually a short-fall not only in terms of the anticipated figure, but even compared with the previous year. This we had not anticipated. In these three months there was an exceptional shortfall in traffic, particularly in coal, and the steel plants did not run to the optimum capacity. Because of this, again, there was a shortfall which nobody expected, in the steel plant traffic from August 1969."

1.110. The following information regarding comparison of rail movement with production of selected commodities has been abs-

tracted from "A Review of the Performance of the Indian Government Railways", May, 1971:

(In thousands tonnes)

Commodities	1950-51	1955-56	1960-61	1965-66	1968-69	1969-70
1. Coal—Production Rail movement	32,825 30,911 (94·2)	38,821 35,888 (92·4)	52,620 50,396 (95·8)	69,456 66,741 (96·1)	74,940 68,638 (91·6)	79,482 70,979 (89·3)
2. Iron ore—Production Rail movement	Included in 'Other ores'		10,683 10,516 (98·4)	16,802 17,672 (105·2)	21,107 20,730 (98·2)	21,578 20,609 (95·5)
3. Iron & Steel—Production Rail movement	1,881 2,750 (146·2)	2,929 3,713 (126·8)	5,490 7,588 (138·2)	7,963 10,077 (126·5)	7,584 9,652 (127·3)	8,279 9,980 (120·5)
4. Cement—Production Rail movement ..	2,655 2,471 (93·1)	4,559 4,022 (88·2)	8,844 6,548 (83·5)	10,578 8,649 (81·8)	11,943 9,397 (78·7)	13,620 10,699 (78·6)
5. Oil—Production seeds Rail movement ..	5,158 1,595 (30·9)	5,734 1,794 (31·3)	6,623 1,517 (22·9)	6,346 1,470 (23·2)	6,845 1,360 (19·9)	7,609 1,172 (15·4)
6. Raw Jute—Production Rail movement	596 470 (78·9)	762 520 (68·2)	744 644 (86·6)	805 763 (95·0)	573 677 (118·2)	1,015 756 (74·5)
7. Raw Cotton—Production & imports Rail movement	735 525 (71·4)	831 751 (90·4)	1,188 536 (45·1)	965 485 (50·3)	1,056 473 (44·8)	1,061 443 (41·8)
8. Salt—Production .. Rail movement	2,662 1,576 (59·2)	3,027 1,887 (62·3)	3,436 1,981 (57·7)	4,715 2,569 (54·5)	5,040 2,728 (54·1)	5,172 2,461 (47·6)
9. Paper and Paper Board Production and Imports	208	32	445	648	776	875
Rail movement	193 (92·8)	260 (80·5)	442 (99·3)	670 (103·4)	795 (102·4)	855 (97·7)

Figures in brackets indicate percentage of rail movement to production and imports.

1.111. From the above it will be seen that the Railways continue by far to be the main carriers of the bulk of production of the basic and heavy industries like coal, ores, cement and iron and steel. However, the relative share of the railways in the carriage of these commodities has come down. In this connection it has been stated that "The drop both in tonnage and in the relative share of the railways in respect of oilseeds, raw cotton and cotton manufactures which are comparatively high rated, is a matter of concern."

1.112. In regard to composition of freight traffic, it has been stated at p. 23 of "A Review of the Performance of the Indian Gov-

ernment Railways, May 1971 that "the preponderance of low-rated commodities like coal, ores, stones, cement, fertilizers, fodder, foodgrains and salt in the traditional mix of the revenue-earning traffic is getting accentuated over the years. This group of commodities accounted for about 73 per cent of the total revenue-earning traffic in 1969-70, but contributed only 53 per cent of earnings from goods carried. The originating tonnage of these low-rated commodities increased by 60 per cent between 1960-61 and 1969-70, while traffic in the rest of the commodities increased by only 16 per cent. The group 'other commodities' recorded an increase in tonnage for the second year in succession, which is a welcome feature. This feature appears to have continued in the year 1970-71 also."

1.113. Although the ratio of volume of high rated commodities moved to the total volume recorded a slight increase in 1969-70 over 1968-69, it was very much below the level obtained in 1965-66 as shown below:

(Tonnes in Millions)

	Total Revenue earning commodities	Other than low-rated commodities	%
1965-66	162·0	50·1	31·1
1968	170·0	46·5	27·2
1969-70	173·8	47·7	27·4

1.114. The Committee desired to know the details of the results of the efforts made in the past to recapture the traffic lost to the road as also the steps proposed to be taken in addition to the measures already taken in the past in this behalf. The Financial Commissioner for Railways stated during evidence: "We are constantly grappling with this problem. The road transport or haulier can take whatever traffic he wants and also pick the traffic he wants but the Railways have an obligation to take all traffic that is offered including the low-rated traffic like coal and food grains which no road haulier wants to take because the rates are low. Now, every year we taken on the liability of low-rated traffic which causes loss whereas the road haulier picks the traffic which pays him most. We have created a special Organisation to go into various aspects namely the Marketing and Sales Superintendents. They are also finding out what are the factors which stand in the way of our taking more of these high-rated traffic. Sometimes our rates are found to be higher, and we then offer special station to station rate, to attract traffic from road transport. We also try to ensure better service.

Then, again, we find that one of the reasons for the loss in high-rated traffic in the Railways is because there are unfortunately, thefts and pilferages on a large scale. As the Minister has been saying these are increasing every year in spite of all our efforts. We have tried to strength the R.P.F. and we have had some success in combating this evil.

So, what we need to do is to see that we give a better quality of service so that there is less loss and fewer thefts, when there is a loss we see that compensation is paid quickly. We have been dealing with these problems in the last two or three years".

1.115. At the instance of the Committee the Railway Board have furnished a comprehensive note (Appendix I) on the working of the Marketing and Sales Organisation of Railways since its inception, the studies made by it and the impact it had on the growth of goods traffic on the Indian Railways.

1.116. As regards the results achieved by the working of Marketing and Sales Organisation on Railway, the Railway Board have, in a note stated: "As a result of various steps taken by Marketing and Sales Organisation Railways loading and earnings of selected high rated commodities increased by 3.1 per cent and 8 per cent in 1970-71 as compared to 1969-70. This increase was achieved despite several adverse factors faced by railways in 1970-71 such as law and order conditions, wild cat strikes by railway staff, general industrial recession, heavy foodgrain movement, poor crops in such high rated agricultural products as cotton and oil seeds, large scale theft of wagon parts and other railway equipments etc.

Railways have in 1970-71 also reversed the tendency for past few years of increased percentage of low-rated traffic to total goods traffic moved. Thus in 1970-71, 32.3 per cent of the total traffic moved was in commodities other than low rated as against a percentage of 27.2 achieved in this regard in 1968-69."

1.117. The Audit paragraph states that against a short-fall of 6 million tonnes or about 67 per cent in the originating revenue earning goods traffic over the budgetted increase, the actual shortfall in goods earnings was Rs. 5.72 crores or 16.8 per cent only. The Committee enquired about the reasons for the disproportionate variation in earnings especially when the lead has not increased significantly. The Railway Board have in a written note stated:

> "The Budget estimates of goods earnings for 1969-70 were put at Rs. 600.00 crores. This took into account an estimated increase of 9 million tonnes of originating traffic, over the previous year's level i.e. about 179.8 million tonnes of revenue earning traffic. The actual materialisation was 173.8 million tonnes, that is, 6 million tonnes less than the anticipation. It may be mentioned that the estimate of goods earnings included the element of "other goods earnings" which was of the order of Rs. 13.75 crores in 1967-68 and Rs. 13.82 crores in 1968-69. Excluding this element from the Budget estimate of goods earnings for 1969-70, the average earning per tonne works out to Rs. 32.60. Thus the shortfall of 6 million tonnes of originating goods traffic should account for a shortfall in earnings to the tune of Rs. 19.56 crores compared with the Budget anticipations.
>
> 2. The average lead of revenue earning goods traffic increased from 633 kms. in 1968-69 to 643 kms. in 1969-70, i.e. by

about 1.52 per cent. Applying 1.58 per cent to the goods earnings of 1968-69 (excluding 'other goods earnings') of the order of Rs. 548.97 crores, the increase in earnings on account of increase in lead may be put at about Rs. 8.67 crores.

After the presentation of the Budget for 1969-70, there were certain revisions of rates, such as, levy of transhipment charges effective from 1-8-1969, enhancement of supplementary charge on foodgrains from 6 per cent to 9 per cent from 15-6-1969, revision of wagon load classification for salt and allied commodities, and certain categories of foodgrains from 1-11-69. These were expected to bring in an additional amount of Rs. 3 crores. Thus, the increase in earnings on account of increase in lead and revision of rates works out to Rs. 11.67 crores.

The effective shortfall compared to Budget anticipations is thus only Rs. 7.89 crores (19.56—11.67), against the short-fall of Rs. 5.72 crores as per actuals for 1969-70. There is thus an unexplained element of only about Rs. 2.17 crores. It may be pointed out that the other goods earnings, consisting of demurrage, wharfage, siding charges, shunting charges etc., which were of the order of Rs. 13.8 crores in 1968-69 went up to Rs. 16.15 crores in 1969-70. This would account for the unexplained element referred to above, *viz.*, of Rs. 2.17 crores."

1.118. **In para 1.75 of their 11th Report (Fifth Lok Sabha) the Committee had pointed out that there had been steep decline in the percentage of rail movement of sugar and cotton manufactures to their total production. From the available information it is seen that even though the Railways continue to be by far the main carriers of the bulk of production of the basic and heavy industries like coal, ores, cement and iron and steel, the relative share of the Railways in the carriage of these commodities has appreciably come down. In the case of other commodities such as oil-seeds, raw cotton, salt and paper and paper boards etc., the percentage of rail movement is also steadily coming down from year to year. The Committee would like Railways to carry out a systematic analysis and take necessary measures to retain and increase their share in the transport of these commodities.**

1.119. **The Committee take note of the work done by the Marketing and Sales Organisation through its various services and agencies. They would, however, suggest that through proper studies the economics of each service such as Container Service, Freight Forwarders' Scheme, Super Express Goods Services, etc., should be evaluated so that necessary measures could be taken to improve the services and extend them in the interest of attracting more traffic to Railways.**

Performance of Production Units

Audit Paragraph

1.120. The total number of locomotives and coaches actually produced by the three Production Units during 1969-70 vis-a-vis the

Budget anticipations and the actuals for the previous year is shown below:—

Particulars	1969-70 Budget anticipation	1969-70 Actual Production	1968-69 Actual production
I. Chittaranjan Locomotive Works—			
(a) Steam Locomotives	70	45	68
(b) A. C. Electric freight Locomotives	60	31	48
(c) Diesel shunters	48	22	17
TOTAL	178	98	133
II. Diesel Locomotive Works—			
(a) B. G. Diesel electric Locomotives	75	58	60
(b) M. G. Diesel electric locomotives	30	24	10
(c) B. G. Diesel shunters	..	..	4
TOTAL	105	82	74
III. Integral Coach Factory—			
(a) Production of shells	740	595	532
(b) Electric Multiple Units	..	54 *	100
(c) Rail cars	..	..	8
(d) Furnishing of shells	670	608	635

*Break up among the items is not available.

1.121. Table below shows the unit cost of production in respect of locomotives in Chittaranjan Locomotive Works and Diesel Locomotives Works during 1968-69 and 1969-70:—

Types of locomotives	Average cost of Production (in lakhs of rupees) 1968-69	1969-70
Chittaranjan Locomotives Works—		
B. G.		
W. G. (Steam)	5·96	6·45
W. L. (Steam)	5·81	..
A.C.F.T. (Electric)	18·92	20·90
Diesel shunter	12·06	12·13
M. G.		
Y. G. Steam	..	6·06
Diesel Locomotive Works		
B. G. Diesel (WDM2)	22·52	22·28
M. G. Diesel (YDM4)	19·54	17·47

NOTE: The average cost for 1969-70 represents the cost for part of the locomotives produced during that year and not for the entire production.

[Paragraph 9, Report of the Comptroller and Auditor General of India for the year 1969-70 on Railways.]

1.122. In a note the Railway Board have stated that "The figures of production of locomotives and coaches of C.L.W., D.L.W. and I.C.F. furnished in the budget for 1969-70 were based on the estimates made by these three Production Units. These figures were revised in the 'Revised Estimates' for 1969-70 and again in the 'Final Modifications'

for 1969-70 depending upon the actual trend of production which in turn depend on availability of materials and changes in production priority for certain types of locomotives, and coaches during the year."

1.123. From the figures given in the Audit paragraph it is seen that against 178 locomotives anticipated to be produced at C.L.W. in 1969-70 only 98 locomotives were actually produced. Similarly in D.L.W. against an anticipated production of 105 locomotives 82 locomotives were produced during 1969-70. The Committee desired to know the reasons for the large variation between the production figures anticipated in the budget and the actual outturn in C.L.W. and D.L.W. during the year 1969-70. The Railway Board have, in a written note, stated: "The basis for budget anticipations is the expected performance of the Production Units based on the actual performance of previous years, up-dated by anticipations of additional facilities, manpower etc., and supplies of raw materials, components of imported origin, supplies of components by other allied public sector units like HEIL/Bhopal, H.S.L., indigenous development of components and materials in substitution of similar items of imported origin. There are many imponderables which go to contribute to the production targets of these Units at CLW and DLW, but the figures adopted for Budget proposals are specifically pitched on the higher side in anticipation of getting the maximum output from these units.

1.124. During the year 1969-70 unfortunately many of the anticipations did not materialise. Supplies from normally assured sources of raw materials etc., were well below targetted anticipations—especially supplies from TISCO, Rourkela and IISCO of sheets of various gauges, Axles etc., and the Calcutta Dock strike led to hold up of imports which adversely affected production. Supplies of Assemblies and sub-assemblies from HEIL/Bhopal of essential electric traction equipment were delayed thereby affecting production programme of D.L.W. Again, release of foreign exchange for imports of vital components got delayed by 4 to 5 months, necessitating slowing down of production at D.L.W. to maintain continuity.

1.125. The Committee enquired since the budgetted production figures were much less than the rated output how the shortfall in outturn was justifiable. In this connection the Railway Board have intimated: "The budgetted production figures are based on an assessment of all round supply position of raw materials, import items, indiginised items and the actual manpower availability in each of these Units. The rated output, however, normally reflects the installed capacity of the Unit based mainly on installed machinery and plant capacity and layout including covered accommodation, but does not take into consideration the position of supplies of raw materials and bought out items or the availability of trained personnel to operate the Unit and the time taken for the development of skills and productivity to the optimum level.

The shortfall in production was also due to delayed supply and drop in the outturn of traction motors and various items of statistic equipment from the traction motors shop of C.L.W. This was in turn due to teething troubles and problems encountered in the developmental stage in the production of silicon rectifiers, smoothing

reactors, master controllers, shunting motor and electric-magnetic contractors, inductive shunts, reversers, traction breaking switches and difficulties in the assembly of Traction motors. Difficulties were also encountered in the supplies of roller bearing axle boxes from NEI, brake equipment and compressors from Westinghouse, Saxby and Farmer and supplies of spring steel rounds from G.K.W. due to the lock-out in that firm.

The reduction in the production of steam locomotives at C.L.W. in 1969-70 as compared with the budget anticipation has to be viewed in the context of the diversification of production at C.L.W. No further order for steam locomotives was to be placed and steam locomotive production was to be entirely discontinued by 1972-73. The production of electric locomotives of different types and diesel shunters had to be gradually stepped up. With this background it became necessary to taper off steam locomotives production more steeply, from 1969-70, in order to release adequate number of staff for retraining for the purpose of employing them in, and increasing in due course, the outturn of electric and diesel locomotives and components required for these.

Regarding the shortfall in outturn from D.L.W., it may be stated that the drop was due mainly to non-receipt of electrical equipment, B.G. Generators, M.G. electric traction equipment from HEIL/ Bhopal. The supplies of these did not at all materialise to the schedule programme and this directly affected the outturn. There was also a delay in the receipt of B.G. axles from import sources mainly due to a strike in France and due to the ships taking the longer route round the Cape and this affected production to the target. Throughout the year 1969-70, D.L.W. experienced difficulties in supplies from import sources and indigenous suppliers."

1.126. According to Audit the Railway Board had stated in September, 1968 that about 325 electric locomotives could be required for the period 1966-67 to 1970-71. The total production during the period 1966-67 to 1969-70, however, was 166 locomotives only. Asked to explain the reasons for this shortfall, the Railway Board stated: "The projected production of electric locomotives during the old 4th Plan period (1966-67 to 1970-71) was 325 AC locomotives. The actual production of electric locomotives from C. L. W. during 1966-67 to 1970-71 was as under:—

1966-67	57
1967-68	30
1968-69	48
1969-70	31
1970-71	41+9
	216*

* Out of the 216 electric locos turned out 207 were ACFT, 6 ACMT and 3 DC.

The very frequent revisions of supply dates and failures of HEIL/Bhopal in supplies of electric traction equipment throughout the year 1966-67 to 1970-71 affected the production programme severely.

The manufacture of traction motors had been taken up in C.L.W. for development and indigenisation of this vital item but in the course of the manufacture of these, in the initial stages teething difficulties were experienced requiring prolonged testing and corrective action and hence adequate capacity could not be built up to the extent expected in this period. Similar difficulties were also encouraged in developing the manufacture of Master controllers and other statistics equipment. Difficulties were also encountered in the supplies of assemblies and sub-assemblies of essential electric traction equipment, supplies of roller bearing axles boxes from NEI, brake equipment and compressors from Westinghouse, Saxby and supplies of spring steel rounds from G.K.W. due to lock-out in that firm.

The large scale diversification of the type of locomotives also to an extent contributed to the drop in production in so far as manufacture had to be taken up of entirely new series of locomotives involving a lot of planning and ancillary works, against the original 325 ACFT locomotives it was found necessary in the course of these years to urgently manufacture some DC locomotives as well as ACMT type of locomotives."

1.127. To a question whether the shortfall in production resulted in continuation of the costlier steam traction even on electrified sections, the Railway Board replied: "The shortfall in production was to some extent set by the slight delay in the energising of a few sections originally planned for electrification earlier, due to which the necessity for some number of locos was not felt. Also, a few short-distance trains which had originally been taken into consideration for haulage by electric traction were deleted from the list mainly to avoid frequent changes of motive power at short intervals from electric to steam/diesel etc. as that would have contributed to idling of other modes of power at the changeover points. Again where the major portion of the run for a train lay in steam motive power section with only a short distance to be covered by electric motive power such trains were operated right from the start to finish with steam motive power. For example, trains from Howrah on the Bandel Kata-Naihati section were all operated by steam from Howrah."

1.128. The table below gives the particulars of total production and expenditure vis-a-vis the budget in three production Units:—

	Total Production (1969-70)			Expenditure (000) (1969-70)		
	Budget	Actuals	Variation %	Budget	Actuals	Variation%
C.L.W.	178	98	(—) 33·70	24,19,65	19,08,56	(—) 21·12
D.L.W.	105	82	(—) 21·90	18,63,50	14,41,30	(—) 22·65
I.C.F.	740	Shells 648	—) 12·3	,7,93,24,	16,23,53	(—) 9·46
	670	furnishing 668				

1.129. From the above it is seen that in the case of C.L.W. the variation in the actual and budgetted figures of production was of the order of 33.70 per cent but the variation in the actual and budgetted expenditure was only 21.12 per cent. Similarly in the case of I.C.F. the production was reduced by 12.3 per cent but the reduction in the expenditure was only 9.46 per cent.

1.130. The Audit paragraph also brings out that the average cost of production of locomotives produced in C.L.W. during 1969-70 was much more as compared to 1968-69. As to the reasons for the increase in the average cost of production in 1969-70, the Railway Board have stated:—

"*Reasons for increase in average cost of production in* 1969-70 *ober that in* 1968-69

Steam Loco: *WG*—The average cost of production of 19 WG locos (out of 32 locos turned out during the year 1969-70) for which cost reports have been finalised, has increased by Rs. 48,294 over the average cost of production in 1968-69. Briefly, the reasons for this increase are: (i) increase in direct labour cost partly due to increase in direct man hours per loco resulting from manufacture of more item of components in the works itself and partly due to increase in labour hourly rates consequent on increase in D.A., increase in wages in time scale etc., (ii) Increase in direct material cost due to increase in prices of raw materials and components purchased from trade:

(iii) increase in overheads due to increase in wages of indirect labour consequent on increase in D.A., increase in wages in time scale, increase in the cost of indirect stores etc.

ACFT Electric Locomotive: The average cost of ACFT electric locomotive in 1969-70 has increased over that in 1968-69 by about Rs. 2 lakhs per loco. Reasons for increase in cost were briefly:

(a) Increase in direct labour cost due to increase in man hours per loco arising out of increase in the quantum of work done per loco, increase in labour hourly rate consequent on increase in D.A. etc;

(b) Increase in direct stores cost due to increase in the price of HEIL transformers, shop manufacture of Traction Motor in C.L.W. works (which is a sophisticated new item in the initial stages of manufacture in C.L.W.), etc.

(c) Increase in overheads due to increase in wages and increase in indirect stores, as also increase in direct labour cost per loco explained above, on which the overhead is levied as a percentage.

BG Diesel Shunters:

The increase in the cost of production in 1969-70 over that in 1968-69 which was marginal viz. Rs. 7,000/- per loco was due to increased D.A., wages in time scale and increase in the cost of materials imported as well indigenously purchased."

1.131. The Committee also desired to know the estimated cost of production for each type of locomotive, coaches, etc., the actual cost and the reasons for the variation. In this connection, the Railway Board have stated: "Ordinarily no estimates of cost of production are prepared for each type of rolling stock programmed to be produced during a year. The average cost of production during the previous year serves as the basis for comparing and controlling the cost of production in the current year, which is the purpose of any estimate of cost. There is adequate control over labour as all the manufacturing operations have been brought under "incentive working" in CLW and ICF and to an appreciable degree in D.L.W. The utilisation of material is adequately controlled in production pre-planning. Under such circumstances the previous years cost amply serves the object of an estimated cost."

1.132. In reply to another question as to what extent has fall in actual production with reference to budgetted production affected absorption of overheads per unit, the Railway Board have stated: "The short fall in production in Rolling stock with reference to initial programme of production for the year which is fixed cosiderably in advance has not affected the absorption of overhead costs as the overhead expenditure is regulated according to revised budgetted production which conform to actuals. In addition to locomotives the Production Units are also engaged in additional activities of manufacture of components for future production, spare boilers (in CLW), spare parts for maintenance purpose (in DLW). Therefore even if there is some short-fall in the production of Rolling Stock, there will be corresponding increase in other productive work so that the absorption of overhead expenditure is not affected."

1.133. The Committee desired to know how do the cost of production in the three produtcion units compare with the landed cost of similar units. In a written note, the Railway Board have stated:

"The average cost of production of locomotives and coaches during the year 1970-71 in the three Railway Production Units is indicated below:

	Excluding proforma charges	Including proforma charges
	(Rs. lakhs)	(Rs. lakhs)
CLW Electric Locomotives—		
ACFT	21·45	23·85
ACMT	25·67	28·47
Diesel Locomotives—		
B. G. Shunters	18·03	24·80
N. G. diesel	11·23	12·51
DLW Diesel-Electric Locomotives—		
B.G. (WDM2)	22·46	25·03
M.G. (YDM4)	17·46	20·03
I.C.F. Fully Furnished Coaches—		
1st Class (B.G.)	2·45	2·69
1st Class (M. G.)	1·86	2·08
IIIrd Class (B.G.)	2·34	2·58
IIIrd Class (M. G.)	1·59	1·63

As regards the question of comparing the cost of production in the railway production units with the landed cost of similar units, it may be stated that after establishing production in the Railway Production Units, locomotoives and coaches have not been imported in recent years. The present day production cost in the railway production units will not, therefore, be comparable with the landed cost of locomotives and coaches imported years ago. Moreover several improvements have been made in the designs for locomotives and coaches being manufactured in the railway production units based on the experience gained in the operation of the stock in Indian conditions.

It may, however, be mentioned for information that the average landed cost of Broad Gauge Diesel Hydraulic Locomotives of similar Horsepower as WDM2 produced currently at D.L.W. ordered for import from West Germany in 1967-68 was Rs. 39.07 lakhs and Metre Gauge Diesel-Electric Locomotive YDM4A type being manufactured currently at D.L.W. ordered for import from Canada in 1967-68 was Rs. 18.32 lakhs.

The average cost of Broad Gauge Electric Locomotive ordered in 1963 for import from West Germany was Rs. 25.36 lakhs.

For over 15 years now passenger coaches have not been imported by the Indian Railways, but according to an advice received in 1950 from M/s Schlieren, Switzerland the average cost of imported Swiss make 1st Class Coaches was Rs. 2.20 lakhs and third class coaches Rs. 1.65 lakhs."

1.134. The Committee drew attention to the recommendation contained in para 3.42 of the 119th Report (4th Lok Sabha) of the Estimates Committee and enquired whether the Railway Board have made a comparative study of the performance of the diesel locos produced by DLW *vis-a-vis* the imported locomotives. The Railway Board have informed that "The Railways have been asked to make a comparative study of the performance of the diesel locos produced by the Diesel Locomotive Works, *vis-a-vis* the imported locos. The result of the study is awaited from the Railways."

1.135. As regards the manufacture of components and indigenous contents of the locomotives manufactured at CLW and DLW, the Railway Board have stated: "With the steps already taken, a larger degree of self-sufficiency is expected to be achieved at the end of 4th Plan period. DLW have progressively increased the indigenous content of the BG & MG diesel-electric locos to 85% and 80% respectively. CLW have gradually increased the indigenous content of electric locomotives to 78.6% on BG diesel locomotives to 70% and 50% on MG main line diesel locos. As regards the Estimates Committee's recommendation to draw up a target date by the end of 1970-71 to manufacture all components hitherto imported, it is submitted that a clearer picture would be available only after some more time, say at the end of 4th Plan period and in the meantime the drive for indigenisation continues. It may, however, be mentioned that even ultimately some essential raw material and special components will have to be imported and 100% indigenisation is not likely to be achieved."

1.136. The Committee note that against 178 locomotives anticipated to be produced at Chittaranjan Locomotive Works in 1969-70 only 98 locomotives of different types were manufactured. Similarly in the Diesel Locomotive Works, Varanasi, only 82 locomotives were produced in 1969-70 against an anticipated production of 105 locomotives. The shortfall in the production has been attributed to non-materialisation of anticipations in regard to supplies of raw materials and components from local as well as foreign sources. In the case of DLW besides other extranous factors, the release of foreign exchange for import of vital components was delayed, which necessitated slowing down of production. So far as supplies of raw materials and components are concerned, the Committee would urge better planning and advanced procurement so that these do not hold up production schedule. The Committee are perturbed to note the delay of 4 to 5 months in the release of foreign exchange for imports of components which affected adversely the production programme. The Committee desire that there should be better coordination and advanced planning to secure foreign exchange allocations in order to import in time the requisite components to sustain the production programme.

1.137. The Committee feel that any shortfall in the targetted production which is always related to the installed capacity of a production unit, not only adds to the overall cost of production but also results in under-utilisation of the installed capacity. As against the projected production of 325 locomotives during the period from 1966-67 to 1970-71, the actual production of only 216 locomotives at CLW during the same period would mean that a portion of the capital investment remained unutilised during this period. This could also in a way imply over-capitalisation with all its attendent disadvantages. The Committee would therefore like that all out efforts be made to ensure that the installed capacity of the production units is utilised to the optimum level.

1.138. As regards the marked increase in 1969-70 when compared to 1968-69 in the cost of production of W.G. Steam locos and ACFT electric locos produced by CLW, the Committee are not convinced with the reasons given such as increase in the cost of labour and raw materials etc. which are common factors in all the production units. The natural inference therefore would be that because of shortfall in production the overhead expenses debitable to each unit actually produced got enhanced and hence the overall production cost has gone up. To that extent the contention that the shortfall in production has not affected the absorption of overhead costs does not sound convincing.

1.139. Another point on which the Committee would like to comment is that although the cost of production of locomotives or coaches may not be comparable to similar locomotives and coaches imported earlier, an attempt should be made to find out the ex-works cost of similar or comparable units being turned out by the collaborators in their own country as also the prices prevailing for comparable rolling stock turned out by leading manufacturers in the world.

1.140. The Committee are confident that with sustained efforts it should be possible to bring down our costs further and thus improve our competitive position in the export market.

1.141. **The Committee would like that the comparative study of the performance of the diesel locomotives produced by DLW and electric locomotives produced by CLW** vis-a-vis **the imported locomotives should be completed at an early date so as to effect improvements in our locomotives.**

1.142. **Concerted efforts should also be made to progressively increase the indigenous contents of the locomotives manufactured in CLW and DLW. There should be a time bound programme for developing manufacture of such components which are at present being imported, so that we can attain self-reliance at the earliest.**

CHAPTER II

PLANNING AND EXECUTION OF SCHEMES

Planning for acquisition of the locomotive power on the Indian Railways

Audit Paragraph

2.1. In planning for the acquisition of new rolling stock, the Ministry of Railways (Railway Board) had, upto the Third Plan Period, followed the incremental method of calculations by which the rolling stock requirements of the anticipated additional traffic only were assessed. The Public Accounts Committee (1967-68) in their twenty-second report (Fourth Lok Sabha) recommended that the Ministry of Railways should review the methodology of planning. The Ministry of Railways (Railway Board) changed the methodology of planning from incremental to the overall traffic, in respect of wagons, from April, 1968 onwards but continued to calculate the locomotive requirements on the incremental method till July, 1969 when they adopted the net tonne kilometre basis for assessing the locomotive requirements with reference to overall traffic. By this method, the total number of locomotives required in 1970-71 was worked out at 9383 for B.G. and 4185 for M.G. Even according to this method of calculation, the total number of locomotives required for the actual traffic that had materialised during 1965-66 to 1968-69 were considerably less than the locomotive holdings as shown below:—

	No. of locomotives in steam equivalents					
	B.G.			M.G.		
	Holding	Requirement	Surplus	Holding	Requirement	Surplus
1965-66 ..	8,680·0	7,475·0	1,205·0	4,061·0	3768·0	293·0
1966-67 ..	8,640·5	7,509·0	1,131·5	4,058·5	3,707·0	351·5
1967-68 ..	8,770·5	7,532·0	1,238·5	4,120·0	3,698·0	422·0
1968-69 ..	8,847·5	7,723·0	1,124·5	4,177·0	3,773·0	404·0

2.2. The Ministry of Railways (Railway Board) stated (December, 1970) that procurement of locomotives had to be arranged in the light of traffic targets finalised by the Planning Commission in consultation with the Ministries concerned and that the surplus of locomotives which itself was due to non-materialisation of the anticipated traffic on account of general recession in the country and unforeseen circumstances relating to law and order, civil disturbances, pilferage, labour strikes etc., was only notional as there was heavy overaged content in the locomotive holdings during the period under consideration. The overaged locomotives were stated to have been retained in service to meet the requirement of anticipated traffic to avoid a big power gap. This indicates that the surpluses were held

in terms of an unduly large number of overaged locomotives, which the Railway Board themselves consider to be of notional existence only but which nevertheless leads to adverse financial effects in terms of cost of maintenance, cost of operation including crew and other staff, excessive consumption of fuel etc.

[Paragraph 11, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

2.3. During evidence the Committee desired to know the outcome of the study made in 1965 regarding the requirements of locomotives both for BG & MG lines. A representative of the Railway Board deposed: "The study carried out in 1965-66 was with reference to the actual requirements of locomotives for the Third Plan and the position as it would be obtaining at the end of the Third Plan. An officer on Special Duty was appointed, who went into the matter, and as a result of his assessment he found that on the basis of 206 million tonnes of freight traffic, there would be about 250 broad-gauge locos surplus while on the metre-gauge there would be a shortage of about 17 locomotives. On the other hand, he also pointed out that there would be a large number of over-aged locomotives on line also and the percentage of over-aged locomotives on line, as per his calculations was 25% on BG and 15% on MG as at the end of III Plan. This study was circulated to the various Zonal Railways for perusal of the Chief Operating Superintendents and Chief Medical Engineers etc. were invited to Delhi to discuss the matter with the Officer on Special Duty. Some Railways did not agree that there would be surplus all the discussions did not reveal that there would be surplus to that extent. This is so far as the study for the Third Plan is concerned—which was completed in 1965-66. A little thereafter, the Board set about assessing its requirements for the Fourth Five Year Plan in the light of the targets that had been set."

2.4. The Committee were informed that in the study made in 1965-66 the incremental method was used whereas in the assessment made for the Fourth Plan the NTKM method was adopted. As regards the difference between the two methods, the witness stated: "The incremental method formula was based on the tonnage of traffic to be lifted in the years to come. For instance, if you make an assessment today on an incremental basis for the Fourth Plan, it means that you take into consideration what additional traffic you have got to lift over the existing level. The existing holding is not taken into consideration. We do not go into the surplus or shortage as on date, but we only take into consideration on an incremental basis traffic expected to be lifted today is 200 million tonnes and we expect that in the Fourth Five Year Plan we will lift 240 million tonnes, we will calculate and assess the additional requirements of locomotives on the 40 million tonnes irrespective of what we are holding today whether it is more, or less, or just sufficient for the 200 million tonnes of traffic.

In the NTKM method, which was adopted from 1969 onwards, we take into consideration the total tonnage of traffic to be lifted up to the end of the Plan and assess our requirements on the final total tonnage of traffic. From that we substract what we are holdnig and arrive at the net requirements for the future".

2.5. To a question as to why the incremental method was changed to NTKM method, the witness replied: "I will take up the goods traffic first. Sir. Your point is why we changed over from the incremental method to the overall traffic method which was in existence so many years upto about the middle of the Third Plan. Upto this period the total amount of tonnage lifted was rising and there was no question of traffic remaining static or going down. In fact we wanted more and more locomotives. So at this stage there was no question of thinking that at any given point of time, we had any surplus, but on the other we were short of locos. Indeed when the Second Plan ended the Railways were short of capacity and short of locomotive power. So there was no surplus which we could have taken into consideration in planing years ahead. When the Third Plan ended and the recession years came, then we felt that we may be holding something surplus either in engines or wagons which we would take into consideration in planning ahead. So we adopted a changed methodology.

The other thing was that the incremental method took into consideration only the wagons required and we applied a formula of improved efficiency factor on the additional stock only and not on the existing stock that did not affect the wagon holding. So in July 1969, the Ministry of Railways, therefore, adopted a new method *i.e.* net tonne kilometre method to assess within a reasonable range of accuracy the total requirement of locomotives required for all services except for passenger services and departmental work".

2.6. Regarding the method of calculation of requirements of locomotives for the passenger traffic, the witness explained: " We take the total daily vehicle kilometres and divide them by vehicle kilometre per vehicle day in use to arrive at the number of coaching vehicles—passengers vehicles—required and we assume one engine will take 10.5 vehicles. We divide that number by 10.5; we have the total number of locomotives it required for the coaching services. We assume that one engine will be required for cretain number of passenger coaches, that is the basis we adopt".

2.7. During evidence the Committee pointed out that by adopting the more scientific or sophisticated method *i.e.* NTKM method, the requirement of the locomotives increased. Asked whether in computing the larger demands under the new method sufficient allowance for the existing stock was made, the representative of the Railway Board replied: "In 1969, the assessment to which we are still adhering, was made by a Committee of officers when they recommended that the NTKM method should be adopted. At that stage, we took into consideration the average number of locomotives required for a given volume of traffic, which latter was worked out on the basis of a discussion between the Railways and the other Ministries and the Planning Commission for determining the total originating traffic anticipated. We took into consideration all the over-aged locomotives we had and that assessment showed that so much was the holding, so much was required and so much was surplus or deficit. So, the existing holdings figure, included the improved locomotives or over-aged locomotives also".

2.8. In regard to the figures of holdings and surplus of locomotives with the Railways, as calculated by the Audit, the witness stated: "The 1965-66 exercise was not a projection but an assessment of the

then holdings *vis-a-vis* requirements. As regards the excess calculated by Audit, we had in January, 1971, pointed out that the basis for calculation was not correct and acceptable."

2.9. He added: "There is a difference and we are prepared to convince anybody that our calculation is on a realistic basis."

2.10. In reply to a question as to why the correct figures were not intimated to Audit the witness stated: "We pointed out certain errors in calculating by Audit but did not supply alternative figures in respect of alleged excess. The assessment which has been made by Audit is on the basis of certain amount of tonnage actually realised. There is therefore bound to be a difference, apart from everything else, between the assessment made on the basis of certain prospective targets. If you look at this retrospectively on the basis of tonnage actually lifted, it would not be comparable, and that aspect should be given consideration."

2.11. The Chairman, Railway Board, however added: "I accept that there has been a failure to give the correct figures to the Comptroller and Auditor General in time. I shall see that this thing does not happen. I would only plead that we may be given an opportunity to give the correct figures to the Auditor-General.

2.12. The Committee desired to know the figures of their holdings etc. as worked out by the Railways. In this connection, the representative of the Railway Board stated: "In 1965-66, according to the assessment made by the OSD, he found on the broad gauge about 250 surplus. Only in 1969 when an overall assessment was made we found that we were not surplus on the basis of certain tonnage to be lifted at the end of Fourth Plan period. We were planning for 265 million tonnes at the initial stage for the Fourth Plan. The 1969 assessment based on 265 million tonnes did not show any surplus. Later the Plan target was reduced to 240 million tonnes. We have reassessed and we found there would be a lesser shortage. If we attain less than 240, there would be some surplus which we shall certainly cut up. This on the broad guage."

2.13. The Committee drew attention to the following observation made by the ARC's Study Team on Railways:

> "An analysis should be made by each zonal railway to determine their actual requirements of locomotives and the surplus should be kept in good repair for use in emergency. To keep a large number of engines in circulation until they are actually required, is uneconomical and should, therefore, be discouraged."

2.14. Asked whether the suggestion contained in the above observation was considered, the representative of the Railway Board stated: "That has been done from year to year. The plans of the zonal railways are discussed with one officer of the Board every now and then, and on the basis of the discussion, the surplus that is found in a given volume of traffic moving at that time is kept in good order and we can supply an engine at any time."

2.15. Subsequently in a note furnished at the instance of the Committee, the Railway Board have stated: "It had been made clear in the Railways" earlier reply to Audit that the basis of computing the availability of locomotive power on the Railways at the rate of 2.5 steam locos for each of the total diesel/electric fleet was not correct. The ratio of steam locos to diesel/electric locomotives is 1:2.5 in respect of main line through goods service, 1:1.5 for passenger powers, and 1:1.25 in case of shunting/inferior service locomotives. Based on this premise, the figures should be as follows:

	B.G.	M.G.
(*i*) Requirement of locomotives as on 31-3-66 as assessed by the Railway Board for 1965-66 level of traffic ..	8,325	4,017
(*ii*) Requirement of locomotives on additional account for a traffic target of 225 million tonnes in 1970-71 as assessed by the Board in April 1968	844	298
(*iii*) Total requirement of Locomotives in 1970-71 as per Board's assessment—item (*i*) and (*ii*)	9,169	4,315
(*iv*) Requirement on replacement account	1,210	465
(*v*) No. of locomotive planned for procurement during 1966-67 to 1970-71 after allowing a credit of 254 BG locomotives for excess provision in the Third Plan	1,800	763
(*vi*) Locomotive holding as on 31-3-66	8,680	4,061

Thus the theoretical difference between the requirements and the availability of locomotive power on 31.3.1966 was 355 locomotives on the BG and 44 locomotives on the MG. Even this was due to the anticipated traffic not having materialised, as against which, the Railways were holding as on that date, 1887 BG steam locomotives and 618 MG steam locomotives which were overaged. These overaged locomotives should normally have been condemned, but were retained in service to meet the requirements of traffic. Had these locomotives been withdrawn, the so-called surplus of 355 BG and 44 MG locomotives would have, in fact, turned into a shortage of 1532 BG and 574 MG locomotives. Moreover, if the performance at low efficiency of these overaged locomotives is taken into account, even this marginal theoretical surplus would perhaps be wiped out.

It was clarified that any direct reference to the locomotive power being surplus was thus as incorrect as indirect implications that performance of the locomotives was poor because of surplus holdings on the Railways. Procurement and retention of locomotive power has to be viewed in the light of traffic targets finalised by the Planning Commission, from time to time, in consultation with the relevant Ministries. There are various factors, such as leads of commodities, proportion of empty haulage unforeseen interference with railway communications, by way of natural calamities or adverse law and order situation, which affect the transport capacity. Any review of requirements in retrospect on the basis of actual materialisation of traffic would thus be misleading. Further, the review now being done pertains to the inter-plan years which were beset with recession in the economy, which seriously affected the industrial sector and in turn, had serious repercussions on the Railways' performance.

Similarly, it would not be correct to say that there was deterioration in the utilisation of locomotives, particularly in the case of steam locos owing to the existence of surplus power. With the progressive dieselisation and electrification, steam locomotives have gradually been relegated to the slower services, e.g., coal and industrial pilots, sectional trains, shunting and van-goods services. Against 88.44% NTKMs under steam traction on the entire BG rail system achieved in 1960-61 the corresponding figure in 1968-69 was 30.47%. On the contrary, the percentage under diesel and electric traction increased from 9.84 to 45.98 and 1.82 to 23.55. respectively, during the same period. Likewise, on the MG, while the percentage of NTKM by steam traction came down from 98.42 in 1960-61 to 62.92 in 1968-69 under diesel and electric traction, it increased from 1.45 to 36.05 and 0.13 to 1.03 respectively.

The drop in usage and diesel/electric locomotives was partly due to the traffic not materialising according to anticipation on many sections. On other sections with the increase in the percentage of utilisation of sectional capacity under these modes of traction, *inter se* crossings and precedences increased when compared to the time the new modes enjoyed absolute priority on account of the limited number of diesel or electric-hauled trains. It would thus not be correct to judge the performance on absolute indices in respect of each traction. Under conditions of mixed traction, where also the proportion of each mode of traction varies, the efficiency should be judged on the basis of an all-inclusive index. Diesel and electric locomotives for this purpose have been expressed in terms of standard WG/YG steam engines. It would be observed from the data given below that the equated number of standard steam locomotives utilised for moving a million NTKM per day has come down from 25 in 1950-51 to 19 in 1968-69 on the BG and from 65 to 40 on the MG (the slight increase in the years 1966-67 and 1967-68 reflects a lower level of traffic in those years).

Year	No. of goods locomotives (in terms of WG/YG steam locomotives) utilised for moving 1 million NT Kms. of freight traffic per day	
	BG	MG
1950-51	25	65
1955-56	22	50
1960-61	20	46
1965-66	20	41
1966-67	21	42
1967-68	21	42
1968-69	19	40

2.16. **The Committee note that the figures of surplus of locomotives as calculated by Audit are not being accepted by the Railway Board now and it was pleaded by the Chairman, Railway Board, during evidence that an opportunity might be given to give the correct figures. From the written note furnished to the Committee by the Railway Board it is observed that the figures in regard to requirement and surplus of locomotives during 1966-67 to 1968-69 have still not been furnished. The Committee would, therefore, like that the complete information indicating the method of calculation of locomotive holdings, requirements and surplus for all these years may be furnished duly vetted by Audit.**

2.17. **However, coming to the specific question of locomotive holdings on the Railways, the Committee would like to emphasise that as the assessments of locomotive requirements made from time to time form the basis for their procurement in future, these calculations should always be based on realistic norms. The Railway Board should also evolve a satisfactory basis for future planning and acquisition of locomotives.**

Northern Railway—Loss due to delay in the execution of Water Supply Scheme at Suratgarh

Audit Paragraph

2.18. Due to scarcity of water at Suratgarh, an important junction on the Bikaner Division of Northern Railway, water required for locomotives and for domestic and other uses of the Railway colony etc., is being brought in special trains from Sarupsar, 21 K.Ms. away, at an annual cost of Rs. 3.32 lakhs. In order to eliminate the water scarcity and to obviate the running of water specials, the Railway Administration approved in August, 1959 a scheme for supply of water at Suratgarh from the Rajasthan Canal scheme. The detailed estimate for the work was prepared in August, 1960 but the work was commenced in April, 1964 i.e. after a period of 3½ years By November, 1967 the construction of overhead tanks, pipe line, water columns, filtration plant and staff quarters was completed at a cost of Rs. 3.93 lakhs. The construction of diggies (tanks into which the canal water is drawn for storage and pumping out to the water supply system) and connected works was not undertaken as the land required for this could not be acquired. The scheme has, therefore, not yet materialised even after a lapse of 10 years.

2.19. When the above scheme was still on the anvil, the Railway Administration sanctioned in March, 1963 an estimate for another scheme of trial boring for a tube well at a cost of Rs. 9,188. The result of the trial bore done in April, 1964 was adjudged successful as regards the quality of water. As the yield was below expectation another estimate for gravel development of the tube well bored was sanctioned in March, 1966 at a cost of Rs. 20,753 (later revised to Rs. 28,377). On completion of the work in June, 1967 at a cost of Rs. 32,588 it was found that neither the yield was as much as expected nor was the water fit for drinking and loco purposes. The tube well was, therefore, sealed.

Due to the delay in the completion of the water supply scheme the Railways Administration continue to incur heavy avoidable expenditure on the running of water specials.

[Paragraph 22, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

2.20. According to Audit para the water supply scheme was approved in August, 1959, the detailed estimate for the work was prepared in August, 1960 but the work could be commenced only in April, 1964. As regards the reasons for delay at various stages, the Railway Board have in a note submitted at the instance of the Committee stated: "The work was included in 1960-61 Works Programme. The approval was communicated to the Railway in March, 1960 while the detailed estimate was sanctioned in January, 1962. Thus the time taken for preparation and sanction of the detailed estimate is about 22 months. The detailed estimate was prepared by the Division in August 1960 and submitted to Headquarters in December, 1960 after getting it duly vetted by the divisional Finance. As the estimate had to be scrutinized in various branches in consultation with Division, it took considerable time before it could be sanctioned by the competent authority.

As soon as the detailed estimate was sanctioned, indenting of stores was initiated. The materials started trickling only in the year 1964. As all works were suitably corelated, the location of the structures could be finalised only after location of the diggies (for which land was to be acquired). As such, the field work could be started only in April, 1964."

2.21. The Committee were informed that the work was expected to be completed within one year and six months from the date of commencement subject to receipt of materials and taking possession of land from the State Government.

2.22. To a question as to the reasons for the non-completion of the work, the Railway Board have replied: "Delay in getting possession of the land due to reasons beyond the control of Railway Administration was the main cause for non-completion of the work. It may, however, be mentioned that the sub-works, which were within the control of Administration and usefulness of which did not depend on construction of diggies were completed in November, 1967."

2.23. The Committee enquired about the action taken by the Railway to acquire land. In a written note the Railway Board have intimated: "The Railway Administration has since taken over possession of 1.806 acres of land on 20-5-71. The work of diggies has been completed and put into commission on 25-10-71."

2.24. In regard to the completed works viz. staff quarters overhead tank and filteration plant etc., the Committee enquired whether they were being fully utilised. They were informed: "The assets that have been created by the Railway Administration are being fully utilised for the purpose for which they are meant as would be evident from the following:—

The overhead tanks on high staging and the standard water columns are fully utilised for filling the engines within the requisite

economical time thereby eliminating detention to trains. The filtration plant and overhead tanks attached thereto are being used for filtration of drinking water to the staff and passengers. The staff quarters are also being utilised for housing the staff."

2.25. The Committee desired to know as to why when the scheme for drawal of canal water had already been sanctioned, was another scheme of exploring the possibility of installing a tubewell sanctioned. The Railway Board have intimated: "Dislocation of train services was expected to be caused when the canal distributory, from where the diggies were to be fed, was closed for a period exceeding the reserve capacity of the diggies. It was, therefore, considered necessary by the Railway Administration to have a trial bore for exploring the possibility of obtaining a dependable source of water. Depending upon the yield from the tubewell it was intended to function either as a supplement to diggies water supply scheme and/or as a standby to the same scheme."

2.26. The Audit para points out that the trial bore done in April, 1964 did not give the required yield but the Administration proceeded with the work. Giving reasons for this, the Railway Board have stated: "It is true that the yield of water has not been upto the expectation. However, considering the fact that Suratgarh is in a desert area, it is but natural to exploit fully whatever water resources become available. The Railway Administration had therefore rightly planned to make full use of the available water supply from trial bore and improve the quality of water by adequate treatment."

2.27. In another note the Railway Board have stated: "The water obtained from this trial bore contained permanent hardness. Since this was not fit for loco feed purposes and was also not considered satisfactory for drinking purposes, the Railway Administration is intending to treat the water before it could be made fit. Till such time the water softening plant is installed and brought into commission, the Railway Administration have been constrained to seal the trial bore temporarily so as to protect the trial bore from being choked by debris falling inside the trial bore."

2.28. It has been further stated that "Railway Administration is now proposing to instal Kannicot type water softening plant for softening water at this station. Arrangements are now being made to instal the softening plant at a cost of Rs. 1.20 lakhs. The trial bore will be utilised after the water softening plant is commissioned by about end of June, 1972."

2.29. The Committee regret to observe that the scheme for improvement of water supply at Suratgarh approved in 1959 could fructify only in 1971 i.e. after more than eleven years. The time taken in sanctioning the detailed estimates as also in starting the work was considerable. The Committee feel that delay at various stages could have been avoided with proper planning and coordination.

2.30 It has been stated that the main cause for the non-completion of the work was delay in getting possession of the land from the

State Government. This indicates that the question of acquisition of land was pursued by the Railway Administration with the State Government in a routine manner. If the matter had been taken up at the appropriate higher level, the land could have been acquired much earlier and delay in the completion of the work avoided. The Committee would like that the whole matter should be thoroughly investigated with a view to fixing responsibility for delay at different stages.

Southern Railway—Premature construction of a third goods terminal at Madras

Audit paragraph

2.31. A third goods terminal at Korukkupet in Madras built at cost of about Rs. 1.05 crores was commissioned in December, 1965. In the justification for this work (included in the Works Programme of 1964-65) it was stated that both the then existing terminals at Salt Cotaurs and Royapuram had reached a point of saturation and there was no possibility of expanding the facilities at these places to deal with the anticipated increase in traffic during 'the next 15 to 20 years'. It was further stated that the number of wagons received in the Madras area was 170 per day (86 at Salt Cotaurs and 84 at Royapuram) and 70 additional wagons per day were expected to be dealt with in the new terminal. The aggregate traffic anticipated to be dealt with at the three terminals together was thus 240 wagons per day. This level has not been reached even five years after commissioning the third terminal. The Railway Administration have stated (November, 1970) that the slow growth of traffic was due to economic recession, that the traffic has started picking up and that during the first five months of 1970-71 the average daily receipts were of the order of 207 wagons, the peak receipts being 228 wagons per day, in July, 1970, a figure which is fairly close to the traffic of 240 wagons per day anticipated at the time the works were justified and sanctioned.

It may, however, be observed that Salt Cotaurs alone had handled 168 wagons per day in January, 1960 and if the capacity of 84 wagons per day of Royapuram is added to this, the total capacity of these existing two terminals was 252 wagons per day which was much higher than 240 wagons, to handle which the third terminal was built at Korukkupet.

[Paragraph 31, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

2.32. The Committee desired to know the justification for the provision of a third goods terminal when there were already two terminals one at Salt Cotaurs and another at Royapuram. The representative of the Railway Board deposed during evidence: "The capacity and the existing number of wagons being dealt with at these two terminals was resulting in heavy detentions of wagons both at the terminals and the yards and in the interest of better utilization of resources and in the light of the anticipated growth of traffic, it was decided to develop a third terminal. This is the main justification."

2.33. He further added: "The need for finding another place to deal with a large number of wagons was felt when we found that the traffic could not be conveniently dealt with at the existing two terminals. We anticipated additional traffic. It is always better to find a place where opportunity offers, because if we delay in taking a decision, the site gets developed, the area gets built up."

2.34. The Audit para states that the new terminal was planned to deal with the anticipated increase in traffic during 'the next 15 to 20 years'. The Committee enquired whether it was prudent on the part of the Railway Administration to embark upon a project costing over Rs. 1 crore to meet the traffic anticipated to materialise in the next 15 to 20 years. In a written note, the Railway Board have stated, "The third terminal at Korukkupet was a developmental scheme executed when there was no possibility of expanding the facilities at the two existing terminals to deal with the anticipated increase in traffic. The surrounding areas were all built up. The pressure of traffic at Salt Cotaurs and Royapuram were heavy, and the question of easing the congestion due to unsatisfactory matching yard facilities was assuming importance. Rapid industrialisation in and around the metropolitan city of Madras offered a promise of substantial growth in rail traffic and it was necessary to provide adequate terminal facilities in order to maintain satisfactory customer service.

When an additional terminal was being planned, it had to be done both on the basis of immediate operational needs as well as keeping in mind the potential for growth in traffic over the next 15 to 20 years. The actual growth of traffic has, however been less than anticipated mainly on account of the recession which has inevitably had its adverse impact in all spheres of industrial and economic development throughout the country. Now when the economy has been taking a turn for the better, the quantum of traffic dealt with at these terminals has been showing up. Details of number of wagons handled at each of the three terminals (excluding MES coal and other traffic such as Basin Bridge Loco coal and Parcel Loads, earlier shown against Salt Cotaurs) are as follows:—

Year	Salt Cotaurs proper	Royapuram	Korukkupet	Total
1959-60	82	74	..	156
1960-61	71	75	..	146
1961-62	63	74	..	137
1962-63	81	71	..	152
1966-67	78	46	28	152
1967-68	77	35	37	149
1968-69	79	40	38	157
1969-70	77	42	37	156
1970-71	75	41	48	164
1971-72 (6 months)	84	44	58	186

(The first 6 months of the year 1971-72 have been encouraging in as much as 186 general goods wagons were dealt with on an average per day at Salt Cotaurs, Royapuram and Korukkupet.)"

2.35. From the above statement it is seen that against the combined capacity of the three terminals the actual traffic handled at these terminals was much less. In fact the average traffic handled by the three terminals during the year 1966-67 to 1970-71 was more or less the same as was handled by the two terminals at Salt Cotaurs and Royapuram between 1959-60 to 1962-63.

2.36. As regards the combined capacity of the three terminals and the actual traffic handled at these terminals, the representative of the Railway Board stated, "When the justification was made, it was determined 86 for Salt Cotaurs, 84 for Royapuram and 80 for Korukkupet. So, the combined capacity was determined at about 240 and the latest figures indicate that we have reached an average of just over 200 and a little more. But the intake of traffic naturally fluctuates. It varies from month to month. The average has come to 200 that is, partly achieving target they had anticipated. But, I am sure, with the revival of economy and the development of traffic in the course of year, the third terminal would fully justify itself. Also this terminal was completed in 1965. In the normal course we conduct a productivity test after 6 years. So this is about the stage when we would be conducting it."

2.37. During evidence the Committee pointed out that considering the actual traffic that materialised it appeared that huge capital had unnecessarily been looked up. Thereupon the witness stated: "In addition to what has been stated in the para like recession, less traffic etc. the loss which would have been occasioned by delays in handling at Royapuram and Salt Cotaurs traffic which was beyond this capacity should also be taken into consideration, for instance, the increased detention of wagons, increased detention of shunting engines, consequently increased fuel consumption. Besides in years to come we may not have got accommodation suitable for requirements of such a terminal. It would have been taken by somebody else and development elsewhere might have been more costly."

2.38. The Committee called for statistics regarding detention to wagons, shunting engines etc. in the three goods terminals during the period 1959-60 to 1970-71. The following statement furnished by the Railway Board gives the figures regarding average detention to wagons in hours:

Year	Salt Cotaurs	Royapuram	Korukkupet
1959-60	33·4	..	..
1960-61	53·0	..	..
1961-62	50·3	..	..
1962-63	60·4	50·6	..
1963-64	47·9	41·3	..
1964-65	72·2	51·6	..
1965-66	68·1	47·3	32·9
1966-67	72·0	56·6	42·9
1967-68	67·6	48·8	54·3
1968-69	50·0	38·7	59·4
1969-70	51·6	40·4	54·8
1970-71	54·2	40·8	44·7

2.39. It is seen from the above that following the opening of the new terminal at Korukkupet, the average detention to wagons at Salt Cotaurs and Royapuram has not been reduced to any significant extent.

2.40. The Committee enquired how was the capacity of Salt Cotaurs terminal taken as 86 wagons per day, when this terminal had dealt with as high a number of wagons as 168 in January, 1960. In a written note, the Railway Board have stated: "The figure of 168, representing the daily average number of wagons handled during January, 1960 at Salt Cotaurs did not relate to the wagons dealt with at this particular terminal alone but included the following, for facility of statistical compilation:—

(i) 15 wagons of Parcel loads meant for Madras which had to be dealt with in a siding adjacent to Salt Cotaurs on account of the remodelling of the Madras Central Station which was then under way;

(ii) 48 wagons of Coal loads meant for the Madras Electricity Siding servicing the Madras Power House; and

(iii) 20 Loco Coal wagons for Basin Bridge Loco Shed.

2.41. If the number of wagons dealt with at the above 3 points aggregating to 83 (15+48+20) is excluded from 168, the net wagons dealt at Salt Cotaurs proper, work out to only 85 wagons, as against the capacity of 86 at Salt Cotaurs as given in the justification for the provision of a third terminal at Korukkupet."

Asked as to the criteria used for assessing the number of wagons dealt with at a terminal, the representative of the Railway Board stated "Royapuram and Salt Cotaurs were handling the total traffic received in that area. The traffic received is of different types. There is loose traffic like coal, minerals, bamboos. There is general goods traffic requiring covered accommodation like wheat, pulses, etc. Then there is traffic coming in smalls, in less than wagons loads; there the wagon has to be opened, the packages have to be sorted out and placed in separate lots according to their nature, destination. So capacity depends upon the mix of the traffic received. For instance, for loose traffic, we do not want any cover; we unload in the open, than depending upon the time we allow for removal of wagons, we calculate the capacity."

2.42. He further added: "One more point about the manner of determining capacity varies very much with the traffic received. If you receive a lot of livestock, the normal capacity of 30 may go upto 100, but this should not create the impression that in all circumstances we will be able to deal with 100. If it is hay grass etc. it is very easy; it is unloaded and taken away in no time leaving room for other wagons to be dealt with."

2.43. In reply to another question as to why the assessment of the capacity of the terminal at Salt Cotaurs proved wrong, the witness explained: "It did not fail. In reply to an earlier query, I said Salt Cotaurs was handling the traffic of two other sidings served by the terminal, that is, loco shed and power house, because wagons

first came from Tandiarpet to Salt Cotaurs, then want to these sidings. The release of these wagons was counted against the release from Salt Cotaurs for statistical purposes. But these wagons were not handled at Salt Cotaurs, as there was no place for extension and it was all built up area. Otherwise, we would have tried to increase the capacity there instead of building another terminal."

2.44. The Committee pointed out that if the explanation regarding the capacity of the Salt Cotaurs terminal now given before them, had been furnished earlier to Audit, there would have been no misunderstanding. To this the representative of the Railway Board replied: "I entirely agree. It is the fault of the Railway that this information was not given."

2.45. **The Committee note that a third goods terminal at Korukkupet in Madras was built at a cost of about Rs. 1.05 crores in December, 1965 on the ground that the aggregate traffic in Madras area would be about 240 wagons. The Committee, however, find that the total number of wagons handled in Madras area since 1965 have remained on an average less than 170 till 1970-71; it was only in the first six months of 1971-72 that there was an increase to 186 wagons on an average per day. The Committee also find that despite the construction of the third terminal goods shed, there has been no marked reduction in the average detention to wagons.**

2.46. **The Committee note that the Railways are carrying out an evaluation of the facilities provided at Korukkupet terminal goods shed. The Committee would be interested to know the findings.**

2.47. **The Committee have no objection to development of adequate facilities for handling traffic (passenger or goods), particularly in metropolitan areas provided these are fully justified on economic considerations. The Committee would like Railways to remember that any capital investment by way of provision for additional goods shed etc. carries obligation to pay dividend to the exchequer, and decision for investment, therefore, should be made after most careful consideration of all factors.**

2.48. **The Committee note that the Railways have explained during evidence that the figures mentioned in the Audit Paragraph about the peak handling of wagons at Salt Cotaurs are inclusive of the coal loads meant for the Madras Electricity Siding and loco coal wagons for Basin Bridge Loco Shed etc. The Committee wish that the necessary clarification should have been given to Audit at the time the draft Audit Paragraph was received by the Railways. The Committee would like Railways to make sure that in future great care is taken in processing the draft Audit paragraphs and that all relevant facts are brought fully to the notice of Audit without delay.**

Dieselisation of certain sections of Eastern Railway

Audit paragraph

2.49. The dieselisation of the sections in the Shibganj Loop i.e. Khana-Sainthia-Barharwar-Sahibgani-Jamalpur-Kiul of Eastern Railway (starting from October, 1963) was considered as a temporary arrangement initially to augment the line capacity for increased

traffic. This section's capacity to run additional trains was at the same time sought to be increased by means of provision of crossing stations, tokenless Block Instruments and doubling of the important artery, Sainthia-Barharwa section. The line capacity works including the doubling of the important section between Sainthia and Barharwa was completed in stages between 1964 and 1968 (the last stage of the doubling was completed and opened for traffic by August 1968). It was anticipated that the increased level of traffic of 1970-71 estimated in 1964 could be theoretically handled by steam traction as for as the portions of the loop from Khana to Barharwa (where the line from Farakka joins the loop) was concerned. It was only in section beyond (i.e. Barharwa-Sahibganj-Jamalpur-Kiul) that difficulties were expected to arise owing to increased goods traffic from Farakka side, additional passenger trains to be run during Fourth Plan, etc. It was anticipated that pending doubling of this section dieselisation might be permitted as a temporary measure.

2.50. The increase in traffic as originally anticipated in October, 1964 did not materialise from 1966-67, particularly in the section of Sahibganj loop beyond Barharwa. Even in 1969-70 the traffic handled in this portion of the loop remained more or less stationary and the bulk of the traffic is carried by steam traction (1969-70). In so far as the section upto Barharwa is concerned, with the completion of doubling (August, 1968) and consequent increase in capacity, the level of traffic offering was within the capacity of steam traction.

2.51. The Ministry of Railways (Railway Board) however, decided in October, 1968 to retain the diesels permanently to work on the Sahibganj loop sections of the Eastern Railway and have since approved the construction of a separate diesel shed at Burdwan to augment the diesel maintenance facilities at a cost of Rs. 20 lakhs (July, 1967).

2.52. It is stated that the number of spare steam engines are of the order of 117, i.e. 10.7 per cent of the holdings in Eastern Railway (1969-70). A transfer of part of the diesel locos at least those working in the Sahibganj Loop on Eastern Railway to other Railways, depending on their relative requirements, just after the completion of doubling, etc., in accordance with the Ministry's original decision would have facilitated better utilisation of these locos and earning of higher mileage. The performance of the steam engines on the Eastern Railway would also improve thereby, as on the Eastern Railway, the spare steam locos work out to nearly 12.7 per cent of the steam traction and earn at present (1968-69) only 13 thousand net tonne kilometres per day against 40 thousands in 1961-62 though the hours worked by them per day remained the same.

2.53. Apart from better utilisation of the locos, the use of coal for traction in Eastern Railway would be more economical than its use elsewhere, situated farther away from coalfields. In their recent studies on the feasibility of dieselisation of some of the sections of Southern and Western Railways which are remote to coal field areas, the Ministry themselves justified introduction of diesels on grounds of comparatively cheaper fuel cost of diesel oil in the manner referred to above.

2.54. The Ministry of Railways (Railway Board) explained (January, 1971) that the retention of diesels on the section of Sahibganj Loop on a permanent basis and provision of new diesel shed at a cost of Rs. 20 lakhs therefor, was justified as the alternative of reintroducing steam traction involved provision of line capacity and loco shed facilities, etc., at a cost of Rs. 76.24 lakhs. Further, this was also in accordance with the Ministry's earlier decision (May, 1963/August, 1964) to stop production of steam locos and adopt Diesel/Electric as the future mode of traction.

2.55. It may be stated, however, that the line capacity works were actually planned in sections beyond Barharwa, and the level of traffic in the section having remained static, the traffic is being managed mostly by the Steam Traction without these facilities till date. (1969-70).

[Paragraph 33, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

2.56. In a note submitted to the Committee the Railway Board have stated that diesel traction is, in fact, introduced normally on those sections which carry a level of traffic which steam traction cannot cope with and where otherwise line capacity works would have to be provided at high cost. While allotting diesel locos for working on individual sections, relative requirements of various sections are taken into account.

2.57. The Committee desired to know the justification for the temporary dieselisation of the sections of Sahibganj loop from 1963-64. In a note, the Railway Board have stated, "Diesel Locomotives were introduced on the Sahibganj Loop for moving the *via* Farakka traffic during the progress of doubling the Sainthia-Barharwa single line section between the years 1964 and 1968. During this period, not only was the capacity strained due to Engineering blocks having to be given, but the speed restrictions as a result of the works. Provision also had to be kept for handling additional traffic anticipated to materialise on the section during this period."

2.58. Explaining the reasons for the permanent retention of diesels on the Sahibganj loop, the Railway Board have stated, "The retention of diesels on the Sahibganj Loop was done both on considerations of capacity as also recurring savings, as compared with steam traction. Originally when diesels were introduced, it was felt that they will have to work on the section temporarily for a period of 5 years. In fact, when the Railways came upto the Board for permanent retention of diesel for working on this section, the proposal was initially not agreed to on the consideration that capacity would have to be developed beyond Barharwa, after which retention of diesel might not have been justified.

The Eastern Railway was accordingly directed to come up with their proposals for additional line capacity and loco shed works required for reintroducing steam traction. The works proposed by the Railway involved an expenditure of Rs. 59.84 lakhs on line capacity, beside Rs. 16.40 lakhs on maintenance facilities, and Rs. 23.10 lakhs on signalling schemes. As against this, the cost of providing shed

facilities for permanent retention of diesels was expected to be only Rs. 16 lakhs. It was mainly in consideration of this fact that the Board decided in favour of retention of diesel traction on this section.

It may also be mentioned that meanwhile the Board had already taken a decision to taper off steam loco production, the future mode of traction being diesel and electric. In view of this, withdrawal of diesels would again have been at best, only for a temporary period, which was not desirable as eventually the section would yet have to operate on diesel traction."

It is seen that the decision to introduce diesels temporarily on the Sahibganj loop as also to continue them on permanent basis was primarily based on the projections made in 1964 about the level of traffic in various sections of the loop upto 1970-71. The Committee enquired what was the expectation of traffic level upto 1970-71 in different sections of the loop as estimated in October, 1964 in terms of total number of trains run during busy season of the year. The Railway Board have stated: "The expectation of freight traffic was based on an anticipated increase of 30 per cent by the end of Fourth Plan period over that carried during the Third Plan period. In addition, a 15 per cent increase in passenger train services during the same period was also assumed. Accordingly, the following services were expected to materialise on the various sections of Sahibganj Loop by the end of 1970-71:

	Passenger	Goods	Departmental	Total
Khana—Rampurhat	9	20	1	30
Rampurhat—Sahibganj	12	26	1	39
Sahibganj—Jamalpur	10	11	1	22
Jamalpur—Kiul	9	10·5	1	20·5

With the doubling of Sainthia-Barharwa section, various sections of Sahibganj Loop have been regrouped to correctly reflect the capacity on these sections. The requirement of services (in 1970-71) according to the regrouped sections, envisaged would, therefore, be as under:—

	Passenger	Goods	Departmental	Total
Khana—Sainthia	9	17	1	27
Sainthia—Barharwa	12	26	1	39
Barharwa—Sahibganj	10	16	1	27
Sahibganj—Jamalpur	10	11	1	22
Jamalpur—Kiul	9	10·5	1	20·5"

The actual materialisation of traffic from 1964-65 in terms of total number of trains run as also the charted line capacity available for the different sections of a loop is given in the statement below:

Section and Year	Charted capacity	Utilisation during busy season of the year
1	2	3
(1) *Khana—Sainthia—*		
1964-65	23	18·5
1965-66	23	17·0
1966-67	23	18·0
1967-68	26	18·5
1968-69	26	14·5
1969-70	26	15·5
1970-71	26	17·5
1973-74*	26	17·5
(2) *Sainthia—Barharwa—*		
1964-65	25	23·5
1965-66	28	22·5
1966-67	28	23·5
1967-68	30	23·5
1968-69	30	24·5
1969-70	50	24·5
1970-71	50	23·5
1973-74*	50	27·5
(3) *Barharwa—Sahibganj—*		
1964-65	22	17·5
1965-66	22	19·5
1966-67	22	19·5
1967-68	24	19·5
1968-69	24	20·5
1969-70	24	16·3
1970-71	24	15·0
1973-74*	24	17·0
(4) *Sahibganj—Jamalpur—*		
1964-65	20	16·0
1965-66	21	16·5
1966-67	21	16·5
1967-68	24	16·5
1968-69	24	16·5
1969-70	24	15·9
1970-71	24	15·5
1973-74*	24	18·0
(5) *Jamalpur—Kiul—*		
1964-65	20	16·5
1965-66	20	15·5
1966-67	20	15·5
1967-68	22	15·6
1968-69	22	15·5
1969-70	22	16·6
1970-71	22	14·5
1973-74*	22	17·0

* Anticipated.

From the above it is seen that in all the sections of the loop the level of traffic remained more or less stationary between the period 1964-65 to 1970-71. In fact even in the case of Sainthia-Barharwa section where the line capacity was increased at considerable cost the actual utilisation remained far below the charted capacity. In this connection the Railway Board have explained, "While it is true that in terms of number of trains run the density of traffic on this section has remained more or less stationary in the past, the traffic has increased in terms of throughout and as would be seen from the following figures there was increase in the traffic over the years despite the general recession in the country:

Section	Throughout in terms of 4-wheeler wagons (Up direction)					
	63-64	64-65	65-66	66-67	67-68	68-69
Sainthia—Barharwa ..	610	670	640	640	640	780
Barharwa—Farakka ..	400	410	420	410	450	540
Barharwa—Sahibganj ..	350	410	410	400	400	400

2.59. The Committee enquired why the Railway Board could not anticipate the non-materialisation of traffic at the beginning of the Fourth Plan (1966-67) and defer the plan of retaining the diesels to the sections beyond Barharwa and avoid construction of Diesel shed in July, 1967 at the cost of Rs. 20 lakhs. In reply the Railway Board have stated, "Railway development programmes are planned so as to fit in the overall planning in other relevant sectors of the national economy, as per the targets fixed by the Planning Commission. Generation of Railway capacity (line capacity works and/or rolling stock) entails a long gestation period. The development of the schemes on the Railways have perforce to be taken well in time so as to ensure that development in any sector of the economy does not suffer for want of adequate transport facilities.

The traffic on this section was anticipated to increase for which dieselisation of the loop was proposed. It was expected to move traffic at the level of 400 wagons a day *via* Farakka and also stone and other materials to the Down country terminals. In fact, the traffic *via* Farakka was expected to reach a daily average of 400 wagons by October, 1965 and 600 wagons after 1967. Wherever riverine conditions were favourable, the movement of traffic *via* Farakka had been in excess of 400, rising upto 461 wagons on an average in April, 1969

The short-fall in the anticipated quantum of traffic has been made owing to the general recession in the country which was unforeseen, and beyond the control of the Railways. Lately the adverse law and order position in the Eastern Section took its own toll. Traffic *via* Farakka has to be frequently regulated and sometimes the loaded traffic diverted on the longer route for transhipment *via* Bhagalpur/Garhara. There were substantial unsatisfied demands for movement on this route."

2.60. It is stated in the Audit para that the traffic in sections beyond Barharwa to Kiul is being managed mostly by steam traction. Asked to furnish details of traffic hauled by steam and diesel tractions from 1966-67 to 1970-71, the Railway Board have stated that the requisite information is being collected. In a separate note it has however been stated that six diesel locos based at Howrah were initially allotted for working through goods trains on Sahibganj loop.

2.61. In reply to another question as to why were the diesels not withdrawn when it was known as early as in 1966-67 that the traffic in the loop sections beyond Barharwa was being managed mostly by steam, the Railway Board have stated that the information was being collected.

2.62. The Committee enquired whether it will not be relatively more economical to use more of steam traction than diesel, wherever possible on economic and operational grounds, on the Eastern Railway than on sections of Southern and Western Railway. In this connection the Railway Board have stated, "It is accepted that as a matter of policy, wherever possible on economic and operational grounds, more of steam traction than diesels should be used on Eastern Railway, than on sections of Southern and Western Railway, but.....the decision to retain dieselisation on this section was to avoid heavy investments on developing line and shed capacities for a temporary period."

2.63. **The Committee find that the decision taken in October, 1966 to continue use of diesels on the Sahibganj Loop which had been introduced as a temporary measure was based on the consideration that the cost of investment on the line capacity works required for haulage of the expected traffic by steam traction would be much more as compared to the expenditure involved in retaining the diesels on a permanent basis. It is, however, seen that before taking a decision no realistic appraisal of the traffic requirements was made. The traffic projections made in 1964 in regard to the level of traffic in different sections of the loop in 1970-71 had remained unrealised. During the period 1964-65 to 1966-67 the traffic had remained more or less stationery and hence augmentation of line capacity was not at all necessary. Had this aspect been taken into account it would have been realised that the traffic on the section could well be managed with steam traction without provision of any new line capacity works. As the Audit have pointed out that even upto 1969-70, most of the traffic in sections beyond Barharwa to Kiul was being managed mostly by steam traction. Although the Railway Board have not furnished details of traffic being hauled by steam and diesel traction separately it can be presumed that only few diesels are deployed on the section. The Railway Board have also accepted that "as a matter of policy, wherever possible on economic and operational grounds, more of steam traction than diesel should be used on Eastern Railway, than on sections of Southern and Western Railways."**

2.64. **In view of the above, the Committee would recommend that the whole question may be re-examined with a view to find out**

whether the small portion of the traffic on the Sahibganj Loop being hauled by diesels cannot be managed with steam traction and also whether the diesels deployed on this section cannot more advantageously be pressed into service on other important sections of Railways where the diesel traction is more economical.

Northern Railway—Remodelling of the yard at Chunar

Audit Paragraph

2.65. Remodelling of Chunar Yard at a cost of Rs. 25 lakhs, to deal with the additional traffic expected to materialise from the Churk-Chunar branch line at the end of the Third Five Year Plan, was sanctioned in June, 1961. The work was commenced in January, 1962 and the remodelled yard was brought into commission in September, 1963. The actual outlay on the project to end of July, 1970 amounted to Rs. 28 lakhs.

2.66. A work study for the Chunar Yard conducted by the Railway Administration in early 1969 revealed that by rationalising the operations of marshalling, examination of wagons, formation of trains and supply of empties; performed at Mughalsarai, Churk and Cheoki, the Chunar yard could be completely dispensed with and an annual saving of Rs. 4.3 lakhs achieved. The rationalisation was, thereupon, brought into effect from 1st March, 1969, but the yard has not been closed as certain operations are still stated to be performed there.

[Paragraph 48, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

2.67. The Committee desired to know the justification for remodelling of the yard at Chunar at a cost of Rs. 25 lakhs. In a written note, the Railway Board have stated: "The following were the main justifications for remodelling of Chunar Yard:—

(i) Chunar would be the serving yard for the section Chunar to Chopan which had been newly constructed. This yard was also expected to deal with the developing traffic of Churk-Chunar-Garhwa Road section with the growth in production of the Hindustan Aluminium factory and the cement factories at Churk and Dalla. This was also meant to be the route by which certain quantum of coal traffic would be moved from Karanpura fields by Garhwa Road-Chopan-Chunar route towards the northern region.

(ii) This yard was also meant to deal with the additional growth of traffic in the Third Plan period moving from the Eastern and Northern Railways *via* Mughalsarai."

2.68. The following details of number of trains for main line and branch line and wagons anticipated to be dealt with at the time of remodelling and as actually dealt with have been furnished by the Railway Board:

Number of wagons handled in terms of 4-wheelers at Chunar:

(i) *At the time the remodelling work was sanctioned (i.e. 1960-61) and year by year from 1967-68 onwards:*

1960-61	1967-68	1968-69	1969-70	1970-71
32,916	47,063	51,576	52,863	65,493

Number of terminating and originating passenger trains:

(ii) Years	Terminating	Originating
1967-68	1 daily	1 daily
1968-69	1 daily	1 daily
1969-70	2 daily	2 daily
1970-71	2 daily	2 daily

Number of main line goods trains each way handled at Chunar in 1961-62 and year by year from 1967-68 onwards.

1961-62	1967-68	1968-69	1969-70	1970-71
22	24·1	26·3	27·4	24·4

(iv) *Number of main line passenger trains each way handled at Chunar in 1961-62 and year by year from 1967-68 onwards:*

1961-62	1967-68	1968-69	1969-70	1970-71
Not available	11	11	11	11

2.69. In this connection the Railway Board have stated that, "The figures given above will show that although there is not much of growth in the terminating and originating branch line passenger trains at Chunar, there had been a gradual increase in the workload both in dealing with the branch line and the main line goods traffic."

2.70. The Audit para states that a work study of the Chunar Yard conducted by the Railway Administration in 1969 revealed that by rationalising the operation at various points the Chunar yard could be completely dispensed with an on annual saving of Rs. 4.3 lakhs could be achieved. The Committee enquired whether before the sanctioning of the remodelling of the Chunar yard any study was conducted regarding the possibility of rationalisation of activities at the various connected points with a view to examine the investment against the background of an integrated view of the operations of the area as a whole. To this the Railway Board replied: "Before

the sanctioning of the remodelling of Chunar Yard, no work study was undertaken on adjacent yards on either side of Chunar. Mughalsarai Up yard had been expended and mechanised for dealing with 3600 wagons of interchange with the Northern Railway at the end of the Third Plan period. If this traffic had materialised, it would not have been possible for Mughalsarai to give any relief to any yard by way of additional marshalling. If a work study was undertaken of Mughalsarai—Chheoki yards before the remodelling of Chunar yard, the same would not have produced any results nor it would have prevented the remodelling of Chunar yard taking place in any way. As the conditions existed at that time, the installation of additional facilities at Chunar would have been absolutely essential in the context of anticipation of the traffic by both the Railways as well as the Planning Commission."

2.71. Asked whether there was a regular procedure for investigating the various refinements etc. that could be carried out at various connected points before deciding to make investment on a particular project, the Railway Board replied: "Before final decisions are taken on investment on any particular project, investigation is also made of the existing facilities available at continguous points. Only when there is no possibility of making adjustments of the existing facilities to meet the prospective traffic, that additional investments in new projects are agreed to."

2.72. In another note it has been stated that the following items of work are being done at Chunar and these items warrant the continuation of the yard:—

(i) Change of train engines of Chunk Specials orginating from Chheoki, Allahabad and Juhi yards and Renukoot specials from Central Railway *via* Chheoki.

(ii) Placement in and withdrawal from the various siding/depots at Chunar.

(iii) Attaching of the up and down stock received from the branch line to 172Dn and 171Up main line work trains.

(iv) Holding down traffic in the Chunar yard because of frequent difficulties in receipt of train by Mughalsarai."

2.73. **The Committee regret to observe that the Chunar Yard remodelled at a cost of Rs. 28 lakhs, with a view to deal with the additional traffic anticipated to materialise, has now been found to be avoidable. The Committee cannot but deprecate the huge investment made on the remodelling work.**

2.74. **The Committee recommend that as a matter of policy before deciding on a large investment on major yards the possibility of rationalising the operations at the connected yards terminals etc., should be investigated in depth. Such an exercise should in fact form an essential part of the justification which should be critically gone into before according sanction.**

2.75. **The Committee would also recommend that efforts should now be made to derive maximum benefit from the Chunar Yard by ensuring that it is put to optimum use.**

CHAPTER III

PURCHASES AND STORES

Chittaranjan Locomotive Works—Import of transformers for electric freight locomotives

Audit Paragraph

3.1. The Railway Board placed orders for manufacture of A.C. freight locomotives on the Chittaranjan Locomotive Works numbering 268 in all, out of which 150 were to be provided with imported transformers and the balance with those from M/s. Heavy Electricals (India) Limited, Bhopal. The manufacture was spread over from 1965-66 onwards and a review in November, 1967 envisaged outturn of a cumulative total of 155 locomotives to end of 1967-68, 74 locomotives in 1968-69 and the balance in 1969-70. A decision to import 40 more transformers was taken in November, 1967 on reviewing the then supply position from M/s. Heavy Electricals (India) Limited and the requirements of production during 1968-69. Foreign exchange for 30 transformers was, however, released by the Railway Board in March, 1968. Before this release of foreign exchange the programme for 1968-69 was proposed by the General Manager, Chittaranjan locomotives works to be curtailed from 75 locomotives to 56 Locomotives, the reasons being the limited rate of supply from M/s. Heavy Electricals (India) Limited and non-availability of imported items before April, 1969. Further foreign exchange for 20 more imported transformers was released by the Railway Board in the last week of April, 1968. The purchase orders for these two batches were issued in May, 1968. The delivery was to commence from February, 1969 in respect of the first batch and from December, 1968 in respect of the second. The increase in the number of the transformers to be imported was to fill up further gap in the supply from M/s. Heavy Electricals (India) Limited. The production target for 1968-69 was revised to 60 locomotives by the Railway Board in June, 1968.

3.2. The production of locomotives, however, could not be kept up according to schedule, the progress being 148 locomotives to end of 1967-68 and a further 48 locomotives during 1968-69. The indigenous supply of transformers was sufficient to meet the needs of production. The shortfall in the target has been explained as due to:—

(i) modifications that had to be carried out on the 14 IR-7 series locomotives assembled and tested upto April, 1968 and their delayed despatch.

(ii) continued trouble with some of the major equipment requiring replacement during commissioning, testing and inspection and consequent delay;

(iii) shortage of certain essential material.

3.3. The existence of a large number of stabled locomotives of previous IR-Series as well as the difficulties in regard to certain indigenous components were known even before November, 1967 as rectification/reconditioning work on such defects were to be carried out in Chittaranjan Locomotive Works as decided by the Railway Board in August, 1967. The decision to import transformers was taken solely on the basis of slow rate of supply from indigenous manufacturer.

3.4. The imported transformers were received from August, 1969 onwards. The production programme for 1969-70 was 57 locomotives leaving a balance of 15 locomotives for 1970-71. The actual production of locomotives in 1969-70 was less than the programme due to the same difficulties as in 1968-69.

3.5. The import of transformers has resulted in an extra expenditure of Rs. 22.01 lakhs besides involving foreign exchange expenditure of Rs. 60.52 lakhs.

3.6. The Railway Administration explained (October, 1970) that the imports were arranged in order to provide a buffer stock and that after September, 1970 the stock of Heavy Electricals (India) Limited transformers came down to nil (taking into account the needs of locomotives in process) necessitating the use of imported transformers for loco production and that the supply of transformers even during 1969-70 was uncertain.

[Paragraph 14, Report of the Comptroller & Auditor General for the year 1969-70 on Railways.]

3.7. During evidence the Committee enquired about the reasons for taking a decision in November, 1967 to import 40 transformers. The representative of the Railway Board deposed: "We had very few transformers in hand for the locomotives that were being produced. So a decision was taken to import transformers. We had a meeting with the Chairman, HE(I) L on 4-11-1967 and he confirmed on 1-11-1968 that it would be better for Chittaranjan to have a cushion by the import of transformers."

3.8. From the information made available to the Committee it is seen that orders for transformers were placed with HEIL, Bhopal as below:—

36 Nos. in January, 1963 (Later reduced to 31 Nos.)
12 Nos. in February, 1966
8 Nos. in April, 1966
67 Nos. in September, 1966

3.9. Against these orders HEIL, Bhopal commenced supply in March, 1967. The Committee were informed that HEIL, Bhopal were expected to produce transformers @ 6 rising to 8 per month as per commitment made by them. Commitments and actual supplies made

by HEIL, Bhopal from time to time are indicated in the statement below:

Year	As promised 5-3-1966	As promised 19-1-1967	As promised 27-7-1967	Actual delivery
By				
31-3-1967 ..	31	4	HEIL advised that shortfall	3
1967-68 ..	97	66	would be made good and the	25
1968-69 ..	120	93	deliveries promised on 19-1-1971	45
1969-70 ..	..	96	maintained there-after.	33
1970-71 ..	..	..		27
				133

3.10. From the above it is seen that against a target of 70 transformers promised by the end of 1967-68 only 28 transformers were delivered by the HEIL, Bhopal. As to the reasons for the delay in delivering the transformers, the Chairman and Managing Director of HEIL, Bhopal has explained the position in his D.O. letter No. CM:G:123/3 dated the 1st January, 1968 which was addressed to the General Manager, C.L.W. Chittaranjan.

3.11. The relevant extracts are reproduced below:

"While admitting the delay in delivering the tarnsformers for the AC Freight Locomotives, I would like to bring to your notice certain facts which have been responsible for the setback in their manufacture. Though the Letter of Intent was received on 16-1-63, the original rating indicated for the transformer was changed subsequently to meet the Railway requirements. The specification for the larger transformer was not cleared by the Railways until M/s. Oerlikon manufactured the first unit and tested it for performance acceptance. Considering that the design was finally established in February, 1965 no material procurement could be taken up by us earlier. Even under normal conditions, the procurement time for imported materials is of the order of 10 to 12 months. In consultation with the Railways, a number of proprietary items were ordered on M/s. Oerlikon and there was a considerable delay in their delivery of some critical items. Materials like Copper and Insulation, details were received only during March 1966 and that too for a limited number of sets only. Railways had in the meantime established in indigenous source for coolers and trying out and proving the indigenous unit for combined performance also involved considerable time. There was also slight delay in the receipt of the tap changers, an item of supply from the Railways. However, in spite of these handicaps the first transformer was manufactured within 8 to 9 months from the date of receipt of basic materials like Copper and Insulation"

"* * * * * *

Even so every effort is being made to push up the rate of production and we hope to achieve at least four units per month during the current year. So far twelve units have been sent and five more are ready for despatch. On a realistic assessment I find that we will be able to despatch four units a month from January 1968 onwards. Some additional Heaters are expected to be in position by June/July 1968 and this would help considerably in increasing the monthly rate of production beyond July next year."

* * * * * *

"6. * * * * * *

There are always some teething troubles in any new line of manufacture, but in this continental design we are faced with certain operations for which our production line is not laid out. We have got over this difficulty to a large extent and I feel sure that we will soon reach a rate of output which will meet CLW's requirements fully."

3.12. The following statement furnished by the Railway Board at the instance of the Committee gives details of the actual and planned production of locomotives by C.L.W., Chittaranjan.

Year	Locomotives		
	Planning as on 4-11-67 Total locos ACFT & ACMT	Revised as on 20-11-67 Total locos ACFT & ACMT	Actual production ACFT & ACMT
By—			
31-3-1967	118	118	118
1967-68	37	37	30
1968-69	63	69	48
1969-70	54	54	31
1970-71	54	54	47
			274
			(268 Ft + 6 MT)

3.13. It is seen that from 1967-68 onward the production of locomotives had had a setback with the result that compared to the planned output of 214 locomotives only 156 locomotives were actually turned out from 1967-68 to 1970-71. As regards the reasons for the shortfall the Audit have informed the Committee as under:

"This was mainly because of a number of defects developed in the electric locos assembled/manufactured by Chittaranjan Locomotives Works as a result of which a number of locos were lying stabled. The matter of these defects was discussed in Board in a meeting presided over by the Chairman, Railway Board in August, 1967 and the Chittaranjan Locomotive Works was directed to take up the rectification of such locos/wheel sets. General Manager, Chittaranjan Locomotive Works

envisaged that this would affect out-turn of locos by Chittaranjan Locomotive Works. The Railway Board themselves reduced the targets for 1968-69 from 80 to 74 in November, 1967 and the General Manager, Chittaranjan Locomotive Works urged reduction to 56 in March, 1968. The actual production level was even lower at 48."

3.14. During evidence the Committee pointed out that in 1967-68 and 1968-69, 28 and 45 transformers respectively were received from the Heavy Electricals India; Ltd., Bhopal besides the 150 transformers imported during the period. This made up a total of 223 transformers by the end of 1968-69. As against this the total production of locomotives by the end of 1968-69 was of the order of 196 only. Therefore, at the end of 1968-69 the CLW should have a balance of 27 transformers. Further during 1969-70 in addition to 33 transformers supplied by HEIL, Bhopal, 38 transformers were imported and 33 locomotives were produced during the year. Asked whether in view of the availability of transformers and reduction in the planned production of locomotives import of transformers' could not be avoided. The Representative of the Railway Board stated: "Sir, first and foremost I would like to submit in a little different way what you are saying. We may not take the annual supply of transformers. I have here a month-wise statement showing the actual transformers in hand against the indigenous which have been assembled. I may mention that if we need to put the transformers into locomotives, we have a four month cycle of locomotive manufacture—from the time we let it down and the transformer to go for the first time, before the balance of the connections can be made. So, for an out-turn of 5 locomotives, we need about 24."

3.15. The Committee called for information about the month-wise receipt, consumption and stock position of the transformers with the C.L.W. The Railway Board accordingly furnished the following statement:

Statement of receipt, consumption and stock position of transformers purchased from M/s HEIL and M/s Group

Month	Receipt			Consumption	Stock at hand
	From M/s. Group	From M/s. EH(I) L	Total		
April/67	..	..	..	5	11
May	..	..	..	1	6
June	4	3	7	2	10
July	..	..	..	2	8
August	4	2	6	3	11
September	6	..	6	5	12
October	..	1	1	..	13
November	..	3	3	2	14
December/67	..	1	1	..	15
January/68	..	8	8	2	21
February	..	2	2	..	23
March	..	2	2	12	13

Statement of receipt, consumption and stock position of transformers purchased from M/s HEIL and M/s Group—contd.

Month	Receipt			Consumption	Stock at hand
	From M/s. Group	From M/s. EH(I)L	Total		
April/68	..	8	8	4	17
May	..	3	3	8	12
June	..	2	2	..	14
July	1	2	3	4	13
August	..	4	4	8	9
September	..	4	4	4	9
October	..	..	..	4	5
November	..	4	4	..	9
December/68	..	4	4	..	13
January/69	..	4	4	..	17
February	..	2	2	..	19
March	..	6	6	16	9
April	..	..	..	..	9
May	..	14	14	..	23
June	..	2	2	4	21
July	3	..	3	8	16
August	7	2	9	..	25
September	5	..	5	5	25
October	5	..	5	9	21
November	3	4	7	..	28
December/69	..	..	..	..	28
January/70	3	4	7	3	32
February	..	2	2	3	31
March	4	18	22	3	50
April	..	2	2	3	49
May	..	..	..	3	46
June	1	..	1	7	40
July	6	4	10	4	46
August	..	..	..	6	42
September	..	..	..	6	36
October	..	..	..	1	35
November/70	3	..	3	4	34*

*34 includes defective transformers either with CLW or with HEIL which number 7.

3.16. From the statement it is seen that the stock-at-hand position of the transformers with the C.L.W. from April, 1967 to November, 1970 was not bad at any stage. In fact from the middle of 1969 when the imported transformers started flowing in the stock-at-hand increased and by the end of 1969-70 there were as many as 50 transformers on hand. It is also seen from the statement that once the supplies from HEIL, Bhopal started in June, 1967, these were regularly coming in from then onward.

3.17. **The Committee note that as the supplies of transformers from Heavy Electrical (India) Limited, Bhopal on whom orders for 118 transformers were placed between January 1963 and September, 1966 had not materialised to the extent promised, the Railway Board decided in November, 1967 to import 40 transformers to build a buffer stock and avoid any break in the production of locomotives. It is seen that in the initial stages due to some teething troubles Heavy Electricals (India) Limited, Bhopal were not able to keep up the supplies as promised but from January, 1968 the supplies were more or less according to the schedule indicated by the Chairman and Managing Director of HEIL, Bhopal in his letter of 1st January, 1968. As against this the actual production of locomotives did not materialise according to anticipations. Against a target of 214 locomotives only 156 locomotives were turned out by CLW between 1967-68 to 1970-71. Thus although the decision to import transformers was based only upon the shortfall in the production of transformers the other equally important factor namely the production programme of locomotives which would determine the need for transformers was neglected. In the circumstances the supplies of transformers from Heavy Electrical (India) Limited, Bhopal would have proved adequate for the manufacturing programme of A.C locomotives by C.L.W.**

3.18. **The Committee are forced to the conclusion that there was a failure on the part of CLW/Railway Board (i) to make a realistic appraisal of the production targets of the A.C. locomotives, and (ii) to estimate the availability of transformers from indigenous source to match with their production programme. This resulted in an avoidable import of transformers costing Rs. 60.52 lakhs in foreign exchange besides an extra Rupee expenditure of Rs. 22.01 lakhs compared to the cost of indigenous transformers. The Committee would like the Railway Board/manufacturing units to take a lesson from this instance and ensure that machinery and equipment are imported from abroad only if these are required in the interest of sustaining a realistic manufacturing programme.**

Indigenous development of manufacture of tokenless block instruments for single line

Audit Paragraph

3.19. The Ministry of Railways (Railway Board) decided in 1962, to instal tokenless block instruments on single line sections in replacement of the token block system to augment the section capacity. The Ministry evolved a tentative design of an advanced type of tokenless block instrument and floated a global tender in 1963 for the procurement of 879 instruments required by the Railway and decided finally (January, 1964) to place an order for 300 Nos. on a Japanese firm for fully imported block instruments (later increased to 444 Nos. in January, 1965) to cover urgent requirements of line capacity works on the Railways. Simultaneously, with a view to developing the indigenous production of these instruments, letters of intent were issued in February, 1964 to two firms for supply of 200 Nos. in one case and 238 Nos. in the other with the stipulation that bulk orders for the above quantity would be placed only after satisfactory trial and approval of the sample instruments.

3.20. The imported instruments (444 Nos.) were received by November, 1965 and commissioned. As regards indigenous development of these instruments, only one of the two firms who had offered a completely indigenous item could submit an advance sample (November, 1965) after a great deal of effort and money. It is to be noted that the foreign exchange content was Rs. 375 out of the total cost of Rs. 6000 per piece. The advance sample was tested through field trials and found to comply fully with the tentative Railway specifications and acceptable to the Ministry of Railways (Railway Board) subject to some slight improvements and modifications (February, 1966).

3.21. In accordance with the letter of intent issued to the firm in February, 1964, the offer should have been followed by a contract for bulk order within 4 months after submission of the sample in November, 1965. However, the Railway Board could confirm through a contract, the terms of price and other conditions as laid down in the letter of intent for a bulk order for 244 Nos. only in May, 1966. No action was taken in the meanwhile to address the firm to extend the validity of the offer beyond 4 months. The firm declined to execute the order (June, 1966) at the price and terms fixed in February, 1964, since according to them, the order was confirmed by the Ministry of Railways (Railway Board) after the validity of their offer had already expired in March, 1966. The indigenous manufacture of these instruments involved sizeable investment in the manufacture of sophisticated relays, etc., the cost of which is well as the cost of fully imported instruments had risen since 1964 and especially after the devaluation of the rupee in June, 1966.

3.22. The indents of the Railways for these instruments were pending for compliance since 1961-62. The Ministry of Railways (Railway Board) did not think it necessary to negotiate with the firm for revised terms as they considered the firm's non-acceptance of the order (June 1966) as a breach of contract and immediately called for fresh tender. The Ministry of Law, however, advised (July, 1966) that a contract did not actually come into existence with the above firm.

3.23. In the retender for the procurement of these instruments in July, 1966, this firm offered to manufacture and supply these instruments at a cost of Rs. 9450 and further expressed their willingness in August and September, 1966 to reduce their price to Rs. 8150 (with foreign exchange content of Rs. 590) per instrument, which they stated was the minimum workable cost for a small scale industry, for this item. The Ministry of Railways (Railway Board) did not consider their offer. It may be mentioned that the lowest of the offers for fully imported instruments received from established foreign firms in the same tender was Rs. 11,575. The order for these instruments was placed (September, 1966) on another firm which quoted lower rates of Rs. 6000-65000 per instrument. The latter firm had, however, no previous experience of this item and promised to develop the same indigenously afresh. They had, however supplied other equipment in the past and were considered by the Railway Board to be capable of developing manufacture of this item. The Ministry further decided in February, 1967 not to

place any orders on the firm which had already developed a proved prototype of the instrument successfully for a year from February, 1967.

3.24. The firm on whom the development order was placed in September, 1966 did not produce any acceptable instrument till December, 1967 and the contract had to be terminated thereafter (i.e. in July, 1968). Further efforts by the Ministry in 1967 and 1968 to get the manufactured by other Indian firms indigenously under subsequent tenders were not successful. A tender was also called in May, 1968 to procure the relays and transmitter for assembling the instruments in a Railway Workshop, but there was no adequate response. Meanwhile, urgent additional requirements were covered by import from a Japanese firm i.e. 78 instruments (cost Rs. 10737 each) under a contract finalised in December, 1967 by Southern Railway Administration and 14 instruments (cost of Rs. 10256 each) under a contract finalised in January, 1968 by the Railway Board. The import was for a slightly improved type known as push button type block instruments. While push button type is a later design and offers some advantage in wear and tear without being costlier, etc., in essentials and from the point of view of operation of signals, the handle type, previously developed by the Indian firm would also serve Railway's purpose. The Ministry of Railways (Railway Board) have subsequently placed orders on two firms for the indigenous development of these instruments on one firm for 198 instruments in April, 1969 at a cost of Rs. 13813 each (with foreign exchange content of Rs. 2,068 the estimated period of completion being three years three months from April, 1969 and on another for 198 Nos. in September, 1969 at a cost of Rs. 14,170 each (with foreign exchange content of Rs. 4,800) for the first 100 Nos. and Rs. 13,815 each (with foreign exchange content of Rs. 3395) for the balance 98 Nos. Both of them have yet to submit a sample instrument (November, 1970).

3.25. The total difference in cost involved in the procurement of all the 396 instruments now on order on the above two firms, as compared with the offer of the indigenous firm which had produced a proved prototype and whose offer was turned down over three years ago was Rs. 22.78 lakhs.

3.26. The Ministry of Railways (Railway Board) explained (October, 1969/November, 1970) that the firm which produced a prototype in 1965-66 were not considered for placement of bulk order in September, 1966, as they had merely produced a single prototype and did not set up facilities for large scale manufacture. Further, their price was considered high as compared to another acceptable indigenous offer on whom they took the prudent step of placing a bulk order to cover the requirements of Railways.

[Paragraph 16, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

3.27. The Committee desired to know whether in 1962, when a decision was taken by the Ministry of Railways (Railway Board) instal tokenless block instruments on single line sections in replacement of the token block system, any assessment was made as to how many sections needed replacement and whether any phased

programme was chalked out for implementation of the decision. To this the representative of the Railway Board replied "The sections where these instruments were to be fitted were determined. It was not precisely indicated in which year they would be fitted but they had already reached a level of traffic which needed a faster working instrument for movement of trains." The witness further added: "This is a gradual process. Right from 1963 we were taking up the fitment of these tokenless instruments, which was going to expedite the movement of trains over individual sections. In 1963 our plan was to fit 220 stations having 440 instruments. This continued to increase and 550 stations needing 1100 instruments is the present programme."

3.28. Asked whether any time schedule had been laid down for deplacement of token block system, the witness stated: "In 1963 there were a number of sections which were required to be fitted on priority. There were sections, like the Sahibganj loop, where it was a matter or urgency. But there were other single line sections also where it was expected that it would be required shortly. 440-odd instruments were required over a period of three years or so."

3.29. When the Committee pointed out that against the requirement of 440 instruments in 1963, global tenders had been invited for procurement of 879 instruments, the witness deposed: "It would also include projection of the requirements over the next three or four years."

3.30. From the information made available to the Committee, it is seen that against the tender No. SIG-6 opened on 17-6-1963, a letter of intent was issued on 21-2-1964 in favour of Firm 'A' stipulating that it was proposed to place an order on them for the supply of 238 instruments at Rs. 6000 each involving foreign exchange of Rs. 375 each, provided the sample to be submitted by the firm fully complied with the specifications after field test. The firm was to keep the offer open for acceptance by the Railway Board for four months from the date of submission of the sample.

3.31. During evidence the Committee were informed that the firm had agreed to develop the prototype within 8 months but actually it took 21 months to produce it. Asked why the firm did not adhere to the time schedule, the representative of the Railway Board explained:

"Sir, this order was placed as a development item. I wish to submit to you that there is a clear distinction between the placement of a straight contract and a development contract. We have in the recent past in our process of indigenisation placed hundreds of contracts on development basis. This is not really a time bound one; some specific time is mentioned but we know all the difficulties that are there in developing a new item for the first time. Therefore, we do not really take a development contract very seriously so far as the time is concerned. Even when the firm took 21 months instead of 8 months to deliver the prototype we knew that they will take a longer time. I will also submit that this was a line clear instrument. We approached the people who are engaged in mechanical signalling industry of which, the line clear apparatus, the point machine are the allied equipments and we got them interested to develop this new item."

3.32. Referring to the statement regarding time factor in the development contract, the Committee enquired whether legal opinion was obtained on the terms of these agreements. To this the witness replied: "No, Sir. We have not gone to the Law Ministry on this issue, particularly it is a pattern on which we have had experience before. Even when we were developing wagon building in this country, we placed an order on entrepreneurs for manufacture of wagons. Some came up quickly, some later. We did not hold them on time-bound contract basis."

3.33. In a written note later on submitted to the Committee, the Railway Board have intimated: "No legal opinion was obtained. A development contract by its very nature, cannot be a time bound proposition, as no firm can possibly estimate accurately the time that will be taken in development. This is because there are likely to be technical and other teething difficulties in the indigenous development of an item, with consequent delays. Delays if any on the part of the firm, in the development of an item, are treated sympathetically and leniently, in the overall interest of encouraging indigenous development and consequent saving in foreign exchange."

3.34. To a question, whether it was not possible for Railways, who had a vast organisation, to first develop a prototype and then ask the manufacturers to manufacture according to the prototype, the representative of the Railway Board replied: "It is not possible to make a prototype in a railway workshop in each case. We do make prototypes in our own workshops and develop it and even mass manufacture them, we have got some production units. Even now a particular sophisticated type of tokenless instrument is being made in one of the workshops in Southern Railway. It is not that we do not make it, but we cannot make it a hard and fast rule that in every case, the item which has so far been imported, it must be made indigenously in our workshops before it is given to any firm."

3.35. The Committee pointed out that in terms of the letter of intent, Railways were required to place an order within four months after the submission of the sample by the firm. Asked why no communication was addressed to the firm within the stipulated period, the representative of the Railway Board stated: "The condition in the contract and in the letter of intent which was issued in February 1964 was that after the submission of a satisfactory proto-type, we should place orders for bulk manufacture before the end of four months. They submitted the prototype in November 1965 and the tests were completed in February 1966. Mathematically, there was still time for the four months to elapse. But the proto-type was found to need more than 20 modifications. Basically, it was working all right, but it needed 20 modifications before this prototype could be passed. Subject to this, the bulk order could be placed, but this testing was almost upto the last date—I think the last date would be 18th March because they had submitted the proto-type sample on 19th November. We felt that since it was a development contract, time was not the essence but that perfection of the proto-type would smoothen the bulk manufacture. Therefore here was some delay on our part in completing the formalities for the placement of the bulk order. It took us to the 7th May instead of 18th March. In these six weeks, the firm realised that they could not make the bulk

manufacture for which they had quoted at Rs. 6,000. So they went into the terms of the contract and said that unless they can have a higher price they are not going to manufacture it and therefore the original contract would be invalid on the basis of the delay in placement of the bulk order."

3.36. At this stage the Committee pointed out that in view of the large number of modifications suggested in the prototype, the firm could have been asked to carry out the modifications and also extend the time limit which was running out. If this had been done the firm could have possibly been pegged down to the price. In reply the representative of the Railway Board stated: "I entirely agree, Sir, it is our mistake."

3.37. In reply to another question, the witness however, added: "We did not think that the firm, after having made this effort of producing a sample, would be so insistent on sticking to the exact time."

The Committee desired to know the reasons for the firm's refusal to execute the contract. In this connection, the representative of the Railway Board stated in evidence: "They did not want to manufacture it at that price; they wanted higher price."

3.38. From the information made available to the Committee it is seen that on 7-5-1966, a formal contract based on the price and other terms specified in the letter of intent of 21-2-1964 was forwarded by the Railway Board to the firm. The firm *vide* their telegram dated 21-6-66 regretted inability to accept the price and other terms of the contract. Subsequently discussions were held wth the firm on 24-6-66 and 27-6-66 and in these discussions, the consequences of not accepting the price and other terms were explained to them."

3.39. During evidence the Committee enquired whether in view of the devaluation which had in the meantime taken place, the increase in prices as a result of devaluation was taken into consideration while discussing the deal with the firm. The witness replied: "Yes ..... we did take into consideration."

3.40. The Committee desired to know whether the prices of the instruments and components registered any increase between 1964 and 1966. In a written note on the subject, the Railway Board have intimated: "No precise information is available on this point. However a statement showing prices quoted by tenderers who quoted both against Tender SIG-6 opened in June 1963 and SIG-10 Supp. I opened in July 1966, for tokenless block instruments is given below:—

Name of the firm	Tender Sig-6		Tender Sig-10-Supp.—1	
	Price each	Foreign Exchange each	Price each	Foreign Exchange each
1. Textool	Rs. 5,057	Rs. 3,733 fully imported.	Rs. 6,000	Rs. 600 part indigenous.
2. Fonra Bros	Rs. 6,000	Rs. 375 part indigenous.	Rs. 9,450 each subsequently reduced to Rs. 8,150.	Rs. 590 part indigenous.
3. Mitsui	Rs. 4,964 each subsequently reduced to Rs. 4,832.	Rs. 3,437 fully imported.	Rs. 11,575	Rs. 8,730 fully imported.
4. W.S.F.	Rs. 5,850	Rs. 2,175 part indigenous.	Rs. 12,330	Rs. 5,610 part indigenous.

Against tender opened in June, 1963, orders were placed in 1964. It will be seen that M/s. Textool quoted the same prices of Rs. 6000 in July, 1966, as was quoted by M/s. Fomra Bros. in June, 1963. If the price quoted by the same firms is considered, the price increases were approximately as under between 1964 and 1966 for the instruments:

M/s. Textool	20%
M/s. Fomra	36%
M/s. W.S.F.	116%
M/s. Mitsui	139%

The extent of price increase varied considerably from firm to firm. Major portion of the increase after 1964 could be presumed to be due to devaluation of the Rupee which substantially enhanced the Rupee value of the imported portion."

3.41. It is also seen that on 2-7-66 when a Tender Committee of the Railway Board considered two offers received in response to a tender opened on 30-3-66 for procurement of 18 Nos. of these instruments, it was found that "the lowest offer was about twice as high as the last accepted price for a comparable item."

3.42. It is seen that in a letter dated 5-7-66, the firm wrote that the Board's contention that the letter dated 21-2-64 was a firm commitment was not correct. On 15-7-66, the Ministry of Law from whom legal opinion was sought indicated that the letter of intent dated 21-2-64 did not result in any binding contract and the Railway Board cannot effect any risk purchase or take any other action to recover damages from the firm.

3.43. A fresh tender was issued on 14-7-66 by the Railway Board for 300 Nos. of similar instruments. According to Audit paragraph the firm also participated in this tender and offered to manufacture and supply these instruments at Rs. 8150 (with foreign exchange content of Rs. 590) per instrument. The details of the offers received against the tender are given in the statement below:—

Serial No.	Name of firm	Rate quoted each	Foreign exchange involved per instrument
1	M/s. Textool	Rs. 6,500 for first 60 Nos. and Rs. 6,000 for balance.	Rs. 600.
2	M/s. Singal & Control Devices	Rs. 9,300 for 250 Nos. and Rs. 9,250 for 300 Nos.	Rs. 580.
3	M/s. Fomra Bros. Engineering Works.	Rs. 9,500 for 250 Nos., Rs. 9,440 for 300 Nos. subsequently reduced to Rs. 8,200 for 250 Nos Rs. 8,150 for 300 Nos.	Rs. 590 reduction in price was offered.
4	M/s. Mitsui	Rs. 11,853·45 for 250 Nos., Rs. 11,575 for 300 Nos.	Rs. 8,726 fully imported.
5	M/s. W.S.F.	Rs. 12,330	Rs. 5,610 partly indigenous.
6	M/s. Simens	Rs. 25,818	Rs. 16,986 fully imported
7	M/s. Ericssons	Rs. 16,647	Not furnished fully imported.

3.44. The Tender Committee at their meetings held on 8th and 9th August, 1966 considered the offers and accepted the offer of M/s. Textool which was the lowest. In their proceedings the Committee have recorded:

"M/s. Fomra Bros. on whom a formal contract was placed on 6-5-66 for 244 tokenless block instruments single line have declined to accept the contract vide their telegram dated 21-6-1966 i.e. nearly 1½ months after placing the formal contract, stating that the price and other terms were not acceptable to them. A risk purchase notice has been served on them on 28-6-66.

* * * * * *

M/s. Textool, although well equipped would be manufacturing this item for the first time. It will therefore be stipulated in the contract that a pair of advance samples instruments are approved after field trials should they commence manufacture of bulk supply."

3.45. It is also seen that in a letter dated 5-9-66, the firm (HIS Fomra Bros) while communicating their offer of reduction in the price quoted by them against the tender inter alia stated:—

"We have communicated to the Board vide our letter dated 5th August, 1966, the reduction in the price for the supply of Tokenless Instrument against the above Tender. This represents a workable cost for a small scale industry as we are. This reduction we need hardly say is a real sacrifice made to avoid losses and at the same time keep the industry alive.

These instruments are only required for the Railways and hence if an order is denied to us not only the efforts and the investment put in for the development of this indigenous item be vast but also put us into financial loss and the closure of our unit. We emphatically submit that we hardly deserve this as a pioneer unit which has done hard work to supply the needs of the Railway over the past several years, and only in the spirit of serving the railways that the development of these instruments were undertaken with the uncertainties involved.

Though the Board is faced with difficulties in considering our offer against one made by a firm in the big scale category taking into consideration that the instruments are ready for production, we would submit that sympathetic consideration be extended to us.

We would suggest for consideration that the Board fix the price at our cost of production plus a permissible profit taking into consideration our status as a small scale unit and the investment made by us for development."

3.46. During evidence the Committee while referring to the above quoted letter of the firm enquired why this offer was not accepted. To this a representative of the Railway Board replied:

"Having called a tender in July, 1966 and having accepted an offer of 6,500 rupees from Textool, we could not consider the higher offer at Rs. 9,450 which was further negotiated to Rs. 8,150 also. Therefore, the consideration which they had asked for, we could not give because there was this offer of 6,500 from Textool and on whom we placed the order."

3.47. To another question whether before accepting the offer of the firm which had quoted the lowest rate any investigation into the capacity of the firm was made, the witness stated: "We are quite certain that they were able to make it."

3.48. Regarding the work done by this firm towards the development of the prototype the Committee were informed during evidence:

"The Textool agreed to submit a prototype in three months, that is, December 1966. In April, 1968, they produced the first prototype which means 18 months after the placement of the order. This did not work properly and soon after because they were involved in a lockout for a prolonged period."

3.49. In a later note, the Railway Board have stated: "M/s. Textools submitted a prototype sample in April 1968 but this was found after trial, to be far from satisfactory and could not be accepted for use on the Indian Railways. The order on the firm had to be cancelled in July, 1968."

3.50. The Audit paragraph states that in February, 1967 a decision was taken not to place any orders on the firm. Asked as to why this decision was taken in spite of the Law Ministry's advice that there was no breach of contract, the Railway Board stated as follows:

"It was decided in February, 1967, that dealings with the firm should be stopped for a period of one year from 23-2-67, in respect of purchases by the Railway Board. The reasons for such action were briefly as under:—

(a) M/s. Fomra Bros. had taken undue advantage of the legal position. If they had any intention of refusing the contract, they could have done so when they were aware of the cost of production.

(b) The item involved being a developmental item, substantial technical assistance had been given to the firm and even the delay of 13 months in the submission of samples had been condoned. Their refusal to accept the contract indicated an unbusinesslike attitude on the part of the firm who took advantage of a technical plea that placement of order was delayed."

3.51. Regarding the work done by the firm in the matter of development of prototype in 1965-66, the Tender Committee, which met in March, 1966 to consider the award of the contract to the firm, *inter alia* stated:

"In regard to the letter of intent issued to M/s. Fomra Brothers for 238 Nos. of Tokenless Block Instruments D.C. coded type, the firm have since submitted the sample which has been subjected to exhaustive tests and has now been passed by a Committee of CSTEs, RDSO and ACRS/Calcutta, *vide* minutes of the meeting dated 23-2-66 placed below. The order on M/s. Fomra Brothers could, therefore, now be confirmed. The order was placed on them at a cost of Rs. 6,000 per unit (without the supply of two additional external relays at an estimated cost of Rs. 450, which if included will bring the cost to Rs. 6,450) against the price of Rs. 5,250 at which the instruments were ordered on M/s. Saxby and Farmer. This price preference of about

23 per cent was allowed to M/s. Fomra Brothers as they had offered a completely indigenous item, involving foreign exchange of Rs. 375 per unit only for import of raw materials as against the order on M/s. Saxby and Farmer involving foreign exchange of Rs. 2,438 per unit (average). Since the quantity required was very large and the entire quantity could not be obtained from M/s. Fomra Brothers within the time required by us, the quantity ordered on them was limited to 238 Nos. and the balance of 2069 Nos. was ordered on M/s Saxby and Farmer. M/s. Fomra Brothers had to spend a lot of money and nearly two years to develop a completely indigenous Tokenless Block Instruments. It is, therefore, very desirable that the indigenous development, achieved after a great deal of effort and money, to produce not only the tokenless block instruments but to produce for the first time in India a type of relay for these instruments which will also be useful for other types of tokenless block instruments as well as for the CTC system, is utilised to the maximum extent, particularly in the context of the present serious foreign exchange position."

3.52. The Committee called for informaion about the efforts made by the Railway Board in 1967 and 1968 to procure the instruments indigenously. In this connection the Railway Board have furnished the following note:

"After placement of the development order on M/s. Textools on 30-9-66 for 320 Nos. instruments, Tender No. Sig. 12 was opened on 11-7-67 for four items of tokenless block instruments. Against the tender 14 Nos. Push button type instruments were ordered in January, 1968 for import from Japan on M/s. Mitsui and Co. There were no suitable offers against the other items.

Another Tender No. SIG-14 was opened on 16-1-68 for Push-buton type tokenless block instruments. It was decided in June 1968 to place an order on an Indian firm for indigenous manufacture with imported components at Rs. 16,945 each involving foreign exchange of Rs. 7,173 each. However, no order could be placed for want of foreign exchange and it was also noticed that prices were lower against a subsequent tender No. Sig. 19.

Meanwhile, it was considered that Southern Railway could undertake manufacture and assembly of the instruments of relays, transmitter and receivers could be imported. Accordingly, tender No. Sig. 17 was issued and opened on 17-5-68. As there was no adequate response against the tender, the proposal could not be pursued.

Another tender No. Sig. 19 was issued and opened for Push-button type instruments in October 1968. It was possible to place development orders on two reputable firms against this tender. Supplies are expected to materialse from the two firms.

The Southern Railway have also since been able to develop manufacture of Push button type tokenless block instruments to a limited extent. They have been able to manufacture 40 instruments so far."

3.53. **The Committee are disappointed with the manner in which the case for indigenous development of an intricate signalling instrument namely token-less block instrument for single line was dealt**

with by the Railway Board. In the first instance it is seen that after the submission of the prototype of the instrument by the firm on the 19th November, 1965, a firm contract was required to be placed on the firm within four months i.e. by 18th March, 1966. Even though the tests on the prototype were completed in February, 1966, the Railway Board failed to place the order on the firm by the due date or to seek extension of time or to communicate with the firm about the modifications suggested in the prototype. As admitted by the representative of the Railway Board during evidence this was a serious lapse for which the Committee would like the responsibility to be fixed.

3.54. Secondly there is no indication that after the firm refused to accept the contract any negotiations were held with them about the price and other terms and conditions in order to resolve the matter. The discussions held with the firm on 24-6-66 and 27-6-66 only attempted to convey to the firm, "the consequences of not accepting the price and other terms." In the context of devaluation and increase in the prices which were known to Railway Board it was only reasonable that the matter should have been fully gone into. The haste with which new tender was floated on 14-7-66 only indicates that the Railway Board did not care to negotiate with the firm who according to them had shown an "unbusiness-like attitude."

3.55. Thirdly when the same firm made a fresh offer in response to the new tenders floated on 14-7-66, it was not considered because this was not the lowest. However, while accepting the lowest offer from another firm, the Railway Board overlooked certain important points. These were:—

(i) No proper investigation into the capability of the firm, whose offer was the lowest, was made. This was of particular importance because the Railway Board were well aware that the instrument was a complicated one and the previous firm had taken about two years to produce an acceptable prototype.

(ii) The price quoted by the firm whose offer was accepted was not realistic in the context of other offers received. The Railway Board have admitted that between 1964 and 1966 the extent of price increase ranged between 20 per cent to 139 per cent. It would also be pertinent to mention that the firm in question (whose offer was not considered) while offering a reduction in the price quoted by them earlier suggested to the Railway Board to fix the price taking into consideration the cost of production and a permissible profit.

3.56. From the foregoing the Committee are led to the conclusion that the case has not been handled in the best interest of Government. Had the Railway Board considered the realities of the situation they would have entered into meaningful negotiations with the defaulting firm, whose merits they fully realised, and arrived at mutually acceptable terms. Their failure to do so has cost the exchequer some valuable foreign exchange and the indigenous development of the instrument has also suffered a set back. The Committee would like the Railway Board to ensure, that the present and anticipated requirements of Railways for tokenless instruments are fully met by indigenous services and at most competitive prices. The Committee would like to be informed of the actual progress made in this behalf.

Procurement of defective rails from abroad

Audit Paragraph

3.57. The Ministry of Railways (Railway Board) imported under a contract finalised by the Indian Railway Steel Purchasing Mission, London in August, 1957 with an European firm, 12000 long tons of 60 lbs. rails at a cost of Rs. 90 lakhs (FOB) for relaying of important trunk routes on the North Eastern and Northeast Frontier Railways. The entire quantity of the 12000 tons of rails was received in India beween September and December, 1958 and consigned to the North Eastern and Northeast Frontier Railways (about 7134 long tons for the Northeast Frontier Railway and the balance quantity for North Eastern Railway). The contract provided for guarantee against any defect imputable to manufacturers and not detected upon acceptance at the Mill, for a period of five years from the date of manufacture i.e. to end of December, 1963.

3.58. These rails were laid in important main line track in 1958 and 1959 (i.e. about 51.60 track miles on the North Eastern Railway and 76.75 track Kms. on the Northeast Frontier Railway). Certain quantity of these rails was also laid in loops and unimportant lines.

3.59. Thirteen cases of fractures of these rails were noticed between February and October, 1961 on the North Eastern Railway. The first 6 fractures were referred to the Chemist and Metallurgist, North Eastern Railway, who reported in June, 1961 that these were half moon fractures which resulted in the formation of hair line cracks on the foot of the rail and transverse shatter cracks on the rail table indicating a defective manufacturing technique. The rail fractures were referred to the Research, Designs and Standards Organisation (M&C), Chittaranjan (September, 1961) who did not agree with the view that the hair line cracks or transverse cracks noticed on the rails were due to defects in the manufacture since the chemical, micro and macrographic tests all yielded satisfactory results to the UIC specification to which these rails were ordered. Further it was held that such cracks were due to uneven surface of the C.S.T. 9 sleepers on which these rails were laid. The matter was discussed in a joint meeting held between the R.D.S.O. and the North Eastern Railway Administration in August, 1962, which held the view that since only 13 rails out of 50000 Nos. laid in the track had revealed cracks during the course of 16 months of service and as no further cracks were reported thereafter, it may not be possible to lay any responsibility clearly on the manufacturer for the cracks observed on these rails. The failure of these rails was reported to the foreign suppliers in March, 1963 (i.e. within the guarantee period) by the Ministry of Railways (Railway Board). In September, 1964 eight samples cut from fractured rails were sent to the foreign suppliers, as desired by them to obtain their opinion about the causes of the fractures but they replied in May, 1965 that the test results obtained by them were satisfactory and wanted further samples cut from the rails showing the fractured ends to obtain a more exact appreciation of the causes of the ruptures of these rails. Although there have been some more fractures of these rails in track after 1961 on the North Eastern Railway, the Ministry of

Railways (Railway Board) decided (October, 1966) that no useful purpose would be served by pursuing this matter further with the suppliers.

3.60. On the Northeast Frontier Railway, there were repeated occurrences of the fractures of these imported rails since October, 1968. A rail flaw detector was detailed in August, 1969 and a check over seven kilometres of track length showed an average of nearly 60 per cent of these rails to be bad owing to visible or invisible cracks or fractures. In a test report furnished to the Board in December, 1969 on these defects, the R.D.S.O. held the view that the defects and the transverse fissure failure of these rails were due to the inherently dirty nature of steel. Several bad rails with visible minute cracks have been replaced by spot renewals. Special patrols both during day and night have been put on the sections of this Railway where these imported rails have been laid. There was also a derailment of a passenger train on 8-1-1970 due to sudden breakage of the rail in the track under the train during its run. As a result, though these rails have served a period of only 10 to 12 years against their normal life of 60 years, the Northeast Frontier Railway Administration, with the approval of the Ministry of Railways (Railway Board), decided (December, 1969) to replace all these rails on their Railway during the course of next two years on grounds of safety, the first batch of renewal of 20 track kilometres length having already been started as an out of turn work during 1969-70 at a cost of Rs. 31.30 lakhs and the remaining batch of renewal (57 Kms.) in 1970-71 at a cost of Rs. 67.07 lakhs.

3.61. There has so far been no similar proposal to replace these imported rails on the North Eastern Railway or on other sections of Northeast Frontier Railway since no fractures have taken place on those sections.

3.62. Thus, despite the fact that the material was considered to be according to specification, some of these imported rails failed in track after 1961 on the North Eastern Railway and there were repeated occurrences of fractures since October, 1968 on the Northeast Frontier Railway requiring complete track renewal. But when the initial fractures of 1961 and again of 1965 were attributed to defective manufacture after examination of the rail pieces by the Chemist and Metallurgist, North Eastern Railway the findings were over-ruled by the R.D.S.O. who conducted their own examinations. Later, in October, 1966 the Ministry did not also consider it necessary to furnish the foreign firm with further samples cut from the rails showing the fractured ends as desired by them, though seven more fractures of these rails in track were recorded by North Eastern Railway between 1962 and 1967 and it was clear that by not pursuing this further, the opportunity of enforcing the warranty claims would be lost. With the closing of the case by the Board in October, 1966, the matter again came up with the report of repeated fractures on the Northeast Frontier Railway after October, 1968 and the R.D.S.O. now hold the view that while the chemical, micro and macrographic tests all yielded satisfactory results to the UIC specifications, these fractures are due to inherently dirty nature of the steel. These defects relate to the quality of steel supplied, and if they had been brought out at the time of

initial inspection at the delivery stage or later within the warranty period, the claims against the firm under the warranty clause could have been pursued instead of being dropped.

3.63. The premature replacement on the Northeast Frontier Railway has entailed loss of nearly 4/5ths of the normal service life of these rails in track (i.e. replacement just after 10 to 12 years, of their laying in track against their expected service life of 60 years) or Rs. 20.89 lakhs.

3.64. The Ministry of Railways (Railway Board) stated (January 1971) that the question of sending further samples of defective rails to the suppliers was considered unnecessary in November, 1966 as no defects were found in those rails on detailed examination by the highest chemical and metallurgical authority on the Indian Railways. Further, these rails being 60 pounders are expected to carry not more than 120 gross million tons traffic and this target had already been achieved by these rails in their service life of 12 years on a heavily worked section on the Northeast Frontier Railway. They also stated that there was no spate of fractures on other sections of Indian Railways where these rails were laid, since the rails laid on those sections had not carried 120 gross million tons of traffic so far.

[Paragraph 26, Report of the Comptroller and Auditor General for the year, 1969-70 on Railways.]

3.65. During evidence the Committee desired to know whether the imported rails were tested before acceptance and if so what was the result of such a test. The Chairman, Railway Board deposed: "These rails are of Thomas quality which is in use on the Continent. In India they were being used for the first time. Because we were not able to get rails from indigenous sources, a steel purchase mission was sent and to get competitive prices they considered the question of purchasing Thomas quality rails also. The Thomas quality rails are according to the specifications of the International Congress Association called UIG specification. These are not according to the Indian Railway standards specification. After going into the pros and cons it was decided to purchase some Thomas quality rails. The conditions of the contract required that the test certificate given by the works will satisfy the purchaser that these are according to specifications. There was also a provision for the Director General ISD, London, to send his officer from time to time to see the rolling and see that the manufacturing process and the testing process were according to acceptable standards. These were the methods adopted before these rails were finally purchased."

3.66. In another context the witness stated: "Rails are manufactured according to a well recognised process all over the world. And it is a continuous rolling-breaking into blooms and putting through the rolling mills and then cutting to the size. And they reject certain portions which come out in the biginning and the end, and any flaws etc. are eliminated. Thereafter, there is a physical inspection."

3.67. He further added: "The rails are not examined at the stage of manufacture before they are supplied to the purchaser under any

contract in any country for a detection of flaw by micro or macro examination. The specifications laid down will not permit it, and the fact that the bulk of our contracts go through properly will show that our specifications are generally in order."

3.68. Asked whether the rails were inspected at delivery stage, the Chairman, Railway Board replied: "Actually the UIC specification was followed and the examination that was specified in the contract had been carried out. The Works Inspector had given the test certificate and the DGISD of London had sent his Officer from time to time to see firstly that the procedure is correct and secondly by certain spot checks to see what they were doing was correct."

3.69. It is seen that the initial test report of the Chemist and Metallurgist of the North Eastern Railway revealed that the rail fractures were the result of a defective manufacturing technique and attributed responsibility to manufacturers, for the following reasons:

(1) The formation of hair line cracks on the foot of the rails during the manufacture has not been eliminated.

(2) Transverse shatter cracks have formed at the vulnerable points on the rail table due to non-compliance of proper cooling cycle in the rails.

(3) Probably the ratio of ingot section to finished rail section has not been followed.

(4) It may be a matter of interest to find out whether proper cropping of the ingots has been done in these manufactures. The investigation of this case, therefore, clearly establishes the theory that was laid down regarding the failure of rails due to such manufacturing defects and that the responsibility for these failures rests with the manufacturers.

When subsequently some cases of fractures were reported to the Joint Director (Chemical and Metallurgical), Chittaranjan, he inter alia made the following observations :

"The results of chemical analysis, hardness tests, macroscopic and general microscopic examination of the three samples indicated that the material out of which the rails had been manufactured was of satisfactory quality. Visual examination of the surface samples in the vicinity of the fracture did not reveal any abnormal surface defect, which could have initiated failure In sample Nos. 1 & 2, the fracture had occurred vertically through the web and foot. The nature and contour of the fracture in the foot indicated that this probably found a part of a half moon crack or break in the foot and the other portion of the samples, not received here, might help to confirm this.

The crystalline nature of the fractured surfaces, the presence of half moon crack on the foot and the fracture just occurring on a sleeper in all the samples suggested that the cause of the failure was due to improper bedding of the rail on the sleeper. It is a generally accepted fact that the half moon shaped crack on one of the flanges of the felt footed rails is caused by improper beddings."

3.70. While referring to the conflicting views expressed by the Chemist and Metallurgist, North Eastern Railway, who carried out the initial tests and the RDSO who conducted their own examination of the fractured rails, the Chairman, Railway Board stated in evidence : "We had laid these rails on the North Eastern and Northeast Frontier Railways. The number of cracks reported from NE Railway was small and this was immediately taken up and investigation was made. The NE Railway chemist and metallurgist did not know perhaps that these rails were purchased as per UIC specifications. Considering the IRS specification, he said, these are the defects. But the metallurgist of the RDSO who knew the specifications fully considered it as meeting the specifications of UIC and gave the view that this was due to bad seating of the rails on the sleeper plates. When this was done, some speed restrictions were imposed and this matter was taken up with the manufacturers and some samples also were sent. In the succeeding years, the number of breakages became nominal and the speed restrictions were removed. Since then, on the NE Railway we have had no difficulty about these rails. Rail breakage upto a small percentage has to be accepted as a fact of life. Some of these defects are inherent at the time of purchase of the rails but we are not able to see them because we do not work a flaw detector on every rail at the time of purchase. But by and large, the supply of rails come through without difficulty. The rail breakage in British railways is much higher than the percentage noticed on the NE Railway. Because on the NE Railway the problem did not appear serious and breakages were found to be nominal in succeeding years, it was not considered necessary to send the samples again. Even if they had been sent, they would not have sent us more information about these rails than what is known to us. We have got a regular system of sending broken rails for examination to chemists and metallurgists, whether they are indigenous rails or foreign. This is part of the system of the working of the engineering department to ensure safety of track.

As per the failure of NF Railway, this came up long after the guarantee period. When the tests were made out, the Joint Director (Chemical and Metallurgical) stated that this was firstly due to fatigue and that in some of the rails, he found evidence of dirty steel, dirty in the metallurgical sense. This was not seen by surface examination. This could be seen only by micro and macro examination by putting a flaw detector over every rail, which is not physically possible."

3.71. In reply to a question, the Chairman Railway Board replied : "The Chemist and Metallurgist of the North Eastern Railway had started initially on a totally wrong assumption that the rails were manufactured according to IRS specifications He did not know that these are according to UIC specifications."

3.72. When the Committee pointed out that in view of the difference of opinion in the two experts viz. Chemist and Metallurgist, North Eastern Railway and Joint Director (C&M), Chittaranjan, the Railway Board should have sought further expert opinion, the Chairman, Railway Board replied: "Expertise comes up with

experience and knowledge. The Jt. Director, Chemical and Metallurgical in the RDSO is a person who is having much more experience than the other person. He went to the spot, inspected the site, carried out physical, chemical and other tests. In the course of his works, he visits the National Metallurgical Laboratory. He has taken all the facts into consideration before he gave his opinion and there is no reason to believe that his opinion needs to be cross-checked again."

3.73. The Committee drew attention to the following statement in the Audit para: "Although there have been some more fractures of these rails in track after 1961 on the North Eastern Railway, the Ministry of Railways (Railway Board) decided (October, 1966) that no useful purpose would be served by pursuing this matter further with the suppliers."

3.74. In reply to a question as to why the case was closed in October 1966, the Railway Board have in a written note stated: "Further samples cut from rails showing the fractured ends to the foreign manufacturer as called by them in May '65 were not supplied because it was considered that no useful purpose would be served in complying with the firm's request but at the same time it would have entailed additional expense in sending the samples. The case was thereafter closed in November, 1966 because no defects could be detected in the samples already sent to the firm and it was not possible to establish that the suppliers were responsible in any way for the fractures. A copy of note recorded by the Joint Director, Civil Engineering on 25-11-1966, from Railway Board's file No. W-6-2/66/63-W6/MR/14/141(B) leading to the closure of the case, is reproduced below:—

> "Discussed by JD/Track and he stated that this is a W-6 case relating to an earlier contract and as such, to be dealt with by me.
>
> I have gone through the case. In view of the reports sent by the suppliers which state that no defects could be detected in the samples sent to them and also in view of the opinions expressed earlier by JD(M&C), DS(C) RDSO vide paras 2 & 4 of the then AMF's D.O. letter at S. No. 41 of file 61/W6/MR/5 and the then AMW's orders at Page 34/N thereof, there is no point in pursuing this case.
>
> We may not, therefore, send further samples to the suppliers."

3.75. The Committee were informed that there was no case of failures of these imported rails prior to 1968 on the North East Frontier Railway and therefore, no speed restrictions were imposed on that account.

3.76. The Committee enquired whether the fractures of the rails as on the North East Frontier Railway were the usual occurrences in the other Railways also. To this the Chairman, Railway Board replied "I would not say that, Sir.".

3.77. Asked whether the fractures were due to defects in the rails or for some other reason, the Chairman, Railway Board stated: "It is difficult to come to a definite conclusion on this point. There may be many contributory causes".

3.78. The RDSO, who investigated the cases of fractures on the North East Frontier Railway have in a test report given in November, 1969 observed as under:

"Quality of the material of all the above six rail samples in respect of their chemical composition and tensile strength (calculated on the basis of average hardness) was found to be conforming to the requirements of UIC 860 specifications for Thomas quality medium manganese rail steel (TMM).

General macro and micro-graphic characteristics of all the rail samples were also found to be satisfactory. Remnant type of segregation in the head section of sample No. 1515/5 was considered to be of minor nature.

Visual characteristics of all the above samples and the following evidences arrived at, from the above findings, clearly established that the "transverse fissure" failures of the above rails, were due to the initiation of fatigue cracks from the extra-ordinary long and thick inclusion streaks/stringers present inherently in the steel:

(i) presence of nucleus of the progressive failure within the middle region of the head section at a depth between 8 and 10 mm (Approx) below the rail table in all the samples.

(ii) numerous extraordinary long sulphide/slag matter inclusions streaks/stringers.

(iii) formation of cracks by linking through the above inclusions which were found to be connected in the region of nucleus of the progressive fracture.

Summing up, it is, therefore, concluded that the "transverse fissure" failures in all the above rails were due to their inherently dirty nature of steel."

3.79. Referring to the above report, the Committee enquired whether the "inherently dirty nature of steel" did not constitute a manufacturing defect and if this report had been available within the guarantee period, could claim due to manufacturing defect have been made against the supplier. In a note on the subject, the Railway Board have stated: "The term 'dirty nature of steel' is a metallurgical expression indicating the presence of unusually long and thick inclusions in the steel. Such inclusions can be detected only by microscopic examination. But the UIC specifications applicable to the supply of these rails do not stipulate Microscopic examination and therefore it was not possible to detect such faults during inspection carried out at the time of supply.

If, however, the rail fractures on N.F. Railway had occurred within the warranty period and investigations of such fractures had revealed the presence of inclusions we could perhaps have taken up this matter with the manufacturers".

3.80. The Committee were informed that the average life of rails depended on the intensity of traffic. On the main lines, the average ranged between 10 to 20 years. Asked whether the percentage of cracks on North Eastern and North East Frontier Railways was the same as on other Railways, the Chairman, Railway Board replied, "The pattern of rail breakage cannot easily be seen. When we take out the rails from the main line and before we lay them on another line, the modern practice is to cut the ends of the rails, weld them and lay them. Before they are welded, a flaw detector is taken over every rail and during the process a number of rails have to be rejected because internal flaws are noticed at that time. These internal flaws are flaws which develop from time to time and come to light from time to time. A rail may not show it today but after five years it may show it. There is no explanation for this except that some incipient flaw develops."

3.81. He further added: "I would not say that rail fracture is very common but it is a fact of life on the railways. On every railway in the world we have rail fractures up to a small percentage".

3.82. The Committee pointed out that after 1961 fractures were noticed on NE Railway and in 1968 a spate of fractures occurred on the NF Railway as a result of which speed restrictions were imposed and patrolling was arranged. Asked whether similar experience was felt on other Railways, the Chairman Railway Board replied: "I was referring to the rail breakage and the incidence of the same in the context of what happened in the North Eastern Railway. On the North Eastern Railway it did not show further development and we were able to remove the speed restrictions. That was according to the pattern that we observe normally on the Indian Railways. As far as the North East Frontier Railway is concerned, I am afraid, there was little we could do to detect it till it became too late. They had done their life to the extent of half; 61 million tonnes of traffic had already passed over them. We just could not detect them earlier nor could we take it up under the guarantee clause".

3.83. In regard to the usual percentage of rail breakage on the Railways, the Chairman, Railway Board informed the Committee as under:

"On the British Railways, the average number of rail fractures is one in 10,000 tons. And the average number of rail fractures per year on the basis of the information that we had on the North Eastern Railway come to one in 11,000 tons. On the North East Frontier Railway, it was not higher than that."

3.84. In reply to another question he added: "It is very difficult to say when a fracture can come up. Every year, we have a system of the joints being opened for the purpose of greasing. . . . . .

Most of the cracks come at the rail ends, and the joints are opened by the Keyman of the Engineering Department. He uses the wire brush to cleanse it and he sees whether there is any defect before he applies greases. If it is there, he again tests it. During this inspection we get information regarding the cracks and we change the

rails. If the man reports one or two cracks in the Section, the Inspector himself goes and goes into them. This is the system that has been working for the last 120 years on the Indian Railways."

3.85. During the course of evidence, the Chairman, Railway Board stated that in the North East Frontier Railway the rail fractures took place after the rails had completed about half the life time and after 61 million tonnes of traffic had already passed over them. In a written note furnished at the instance of the Committee, the Railway Board have given the following figures regarding the quantum of traffic carried over these rails in track on N.F. Railway:

Year	Gross Million Tonnes
1958-59	2·61
1959-60	2·69
1960-61	3·06
1961-62	3·08
1962-63	3·72
1963-64	6·36
1964-65	6·65
1965-66	6·18
1966-67	5·38
1967-68	7·26
1968-69	7·27
1969-70	7·18
Total ..	61·14

3.86. Referring to the figures of traffic furnished by the Railway Board, the Committee pointed out that in the Audit part it had been stated that these rails in their service life of 12 years on a heavily worked section on the NF Railway had already carried traffic of more than 120 gross million tonnes. The Chairman, Railway Board there upon stated:

"I would deeply apologise that the information that was given was wrongly calculated: they did not work it out in detail. We have now calculated the figure year by year from statistics and have also cross-checked it. It is 61 million tonnes. I tried to give this information to the Auditor-General's office three days ago as soon as I came to know about it. I would like to apologise for this lapse."

3.87. The Committee called for information as to how the figure of traffic carried, as given to Audit, had been worked out. In a written note the Railway Board have stated:

"In the Railway Board's reply to Audit, it was mentioned that the rails had carried a traffic of 120 M-GMT. This figure was taken from the Proforma justification appended to the proposal submitted by the N.F. Railway in January, 1970, for the replacement of these rails. The relevant extract of the proforma justifications is reproduced below:—

Item (*vii*)

Total tonnage that has moved over the Section": "Exact figure is not available. Approximate figure is 127·00 M.—GTKm.

2. In the body of the justification, however, no mention has been made of this figure. The justification was based on the heavy incidence of rail fractures and the abnormally large percentage of defective rails detected by the rail flaw detector.

3. The Railway Board while according sanction to the rail renewals take into account factors such as permissible percentage limits of rail wear, conditions of rails and total tonnage of traffic that has moved over the section due for renewal (the details of which are given in the proforma justification to be furnished to the Board by the Railway Administration duly verified by the concerned (FA&CAO). In this particular case, the prime consideration for rail renewal was safety resulting from the heavy incidence of rail fractures and the abnormally large percentage of defective rails. Therefore, even if the figure of traffic carried had been correctly indicated as 61 GM tonnes, the rail renewal could not have been obviated and would have had to be sanctioned by the Railway Board. However, it is accepted that the aspect of premature renewal may also have received due consideration in the justification prepared by the N.F. Railway, and in the Notes in the files of the Railway Board. As the N.F. Railway emphasised the safety aspect, the incorrect figure of tonnage carried appears to be an inadvertant error. However, the relevant files of N.F. Railway are being consulted to verify the exact basis on which the incorrect figure of 127 GM tonnes came to be determined and to make sure that wrong figure was not intentionally given."

3.88. The Railway Board have further intimated: "The relevant files of the N.F. Railway have been examined. Files of N.F. Railway dealing with the proforma justification made out by them in this case do not contain any detailed calculations to show how the figure of 127 gross million tonnes traffic came to be adopted. However, the General Manager, N.F. Railway has now stated that the figure of total tonnage was presumably just adopted from the proforma justification prepared for a renewal work already approved for 1970-71. Final Works Programme in an adjacent section where the rails due for renewal were however laid in 1936-37 and had carried a total tonnage of 127 M-GTKm approximately since then.

3.89. The General Manager, N.F. Railway had also obtained in 1969 full details of the previous history of the fractures of the rails imported under this order on the N.E. Railway, the claims made against the foreign suppliers including a copy of the letter dated 17-2-1967 from the Railway Board to General Manager, N.E. Railway closing the case. The N.F. Railway Administration perhaps did not emphasis the aspect of premature renewal or the question of claims against suppliers at the time of proposing through renewal in December 1969 to the Railway Board as they knew that the Railway Board had closed the case."

3.90. The Chairman, Railway Board stated in evidence: "May I submit that even if this 120 million tonnes figure had not been given, the spate of rail fractures would have necessitated the renewal of rails in that particular section?".

3.91. As to the criterion followed for replacement of rails, the Railway Board have in a written note stated: "The criterion followed for the replacement of rails is strictly on condition basis."

3.92. The Committee enquired whether the case regarding purchase of these rails was at any time investigated by CBI/SPE. In a written note the Railway Board have intimated: "In October, 1962, the AIG, SPE (vide his secret D.O. No. 14597/1/183/62 UP of 17-10-1962) on receipt of an information in October, 1962 about acceptance of substandard rails supplied to N.E. Railway by a foreign firm desired that all the related files be made over to the SPE for their examination. The SPE (CBI) was replied to by the Board demi-officially vide their D.O No. E62VGI-88, dated 6-11-1962 to the Inspector General of Police, SPE, New Delhi.

An attempt has been made now after the Committee has gone into the matter to find out whether the matter was further investigated by the CBI thereafter. As the Board had not been able to trace any correspondence about the case except the above mentioned D.O. letter addressed to the Director, CBI in November, 1962, a confidential reference was made to the Director, CBI on 3-11-1971, giving details of case. This was replied to by the Director CBI on 5-11-1971 stating that the case was closed and their concerned file was weeded out on 9-4-65. He has stated that from the entries made in the complaint Register, it was, however, clear that the information in this case was received in October, 1962 (as already mentioned in the previous para) and after some scrutiny it was decided to take no action on it. The Director CBI has further stated that the information received in this case was referred to the Railway Board to know their reactions and as the Railway Board's reply of November 1962 (referred to already in the previous para) clearly stated "that it would not be correct to reasonably ascribe any failure or malafides on the part of Inspectors deputed by Director General I.S.D. London". Guarantee clause had been invoked against the suppliers, there being no indication of malafide, the case was not fit for investigation by the S.P.E., and the matter seemed to have been dropped."

3.93. **The Committee are distressed to note that following a spate of fractures on the imported rails laid on the Northeast Frontier Railway, all the rails had to be replaced within a period of 10 to 12 years against the normal code life of 60 years. The premature replacement has cost about Rs. 1 crore.**

3.94. **From the available material it is noticed that despite several enquiries at different stages it has not been possible to fix the responsibility on the manufacturers for manufacturing defects. This is partly due to the fact that because of the divergent views about the causes of fractures given by the Chemist and Metallurgist, North Eastern Railway, Joint Director (Chemical and Metallurgical) Chittaranjan and RDSO, no firm conclusions were drawn well in time. The Committee regret that the Railway Board failed to make any conclusive investigation into the real causes of the fractures noticed on the North Eastern Railway during 1961. In view of the conflicting views held by the experts about the causes of the fractures it was only appropriate that detailed investigations should have been ordered to establish whether the defects could be attributed**

to deficiencies in manufacture. At this stage the Committee can only deplore the manner in which the matter was gone into which ultimately led to a loss of a crore of rupees on account of premature replacement of rails besides carrying with it serious risk of loss of life and property before the defective rails were replaced.

3.95. **The Committee would like the Railway Board to carefully analyse the case and evolve a procedure by which cases of premature failure of rails are thoroughly investigated so as to take timely action against suppliers.**

Extra Expenditure in the Procurement of Malleable Cast Iron Inserts for Concrete Sleepers

Audit Paragraph

3.96. Malleable cast iron insert is one of the items in the concrete sleeper assembly. These inserts, at the rate of four numbers per sleeper (two on each side of the rail seat) are cast along with sleepers and as such they are required to be supplied to the sleeper manufacturers in time before the delivery dates stipulated for supply of concrete sleepers and in adequate quantity. The drawings and specifications for the inserts, as well as for the concrete sleepers were finalised by the Ministry of Railways (Railway Board) in October, 1967 for procurement action. The inserts are required to be manufactured out of malleable cast iron to pearlitic grade made out of raw material such as steel scrap, pig iron, ferro alloys etc. depending on the process employed for production.

3.97. With the expectation of an order for 1 lakh concrete sleepers in 1968 (order placed in June, 1968) the Ministry of Railways (Railway Board) called for tenders for 4 lakh inserts in December, 1967 with the stipulation that the tenderers should submit their sample along with their quotations. Out of 27 tenderers, only 7 submitted samples. Out of these, only the samples of 2 firms (Firms 'A' and 'B' who had quoted Rs. 7 and Rs. 6.75 per unit respectively) were found satisfactory as per the metallurgical and chemical tests. The Ministry considered only the offer of these two firms who after negotiations agreed to a rate of Rs. 4.75 per insert. Letters of acceptance of offer were issued to both the firms (May, 1968) and the same was also accepted by them, for supply of 2 lakh Nos. by each of them to be completed by April, 1969, the rate of supply being 40,000 Nos. per month in case of firm 'A' and 30,000 per month in the case of firm 'B'. Formal contracts as a prerequisite for regular production were, however, not concluded immediately thereafter. In August, 1968 the firms, were asked to offer a trial supply of 1000 inserts for approval. Based on the experience of manufacture of trial supplies by the firms, it was felt necessary to make modifications in the tolerance as well as specification which were finalised only in July, 1969. But when the firms were addressed to conclude the formal contracts and commence regular production (June, 1969) revising the delivery date to 31-10-1969, they expressed (July, 1969) difficulties in agreeing to the original terms under the revised conditions and to the schedule of delivery and requested for an increase in the price of Rs. 4.75 per insert already contracted.

3.98. Meanwhile, to cover the additional requirements of inserts of concrete sleeper manufacturers, tender for 6.4 lakh numbers was called for and opened in April, 1969. Out of the 18 firms which tendered and out of samples submitted by 11 firms, the sample of only one firm, viz. firm 'A' on whom orders had already been placed in May, 1968, was found acceptable. Although this firm 'A' was committed under the previous order to supply two lakh inserts (which could be raised at the option of the Railways to 4 lakh Nos.) at a rate of Rs. 4.75 per insert and had yet to start regular production, they offered to supply another 3 lakh Nos. during the year 1970 at a price of Rs. 7 per insert. As there were only two firms at that time capable of supplying the malleable inserts for concrete sleepers and being contractually bound to supply adequate number of inserts to the sleeper manufacturers whose requirements were assessed to be 7 lakh inserts upto end of December, 1970, the Ministry of Railways (Railway Board) agreed in September, 1969 for an increase of Rs. 1.25 raising the rate to Rs. 6 per insert in the case of firm 'A' covering both the supply of 2 lakh Nos. under the earlier order and in addition 3 lakh more Nos. offered under the subsequent tender of April, 1969 (i.e. a total of 5 lakh Nos.) to be supplied by the end of December, 1970 by progressively stepping up their rate of monthly supply from 15,000 to 20,000 in January, 1970 and to 40,000 from April, 1970. In the case of firm 'B' an increase of Re. 0.50 raising the rate to Rs. 5.25 per insert was agreed to at the same time for supply of 2 lakhs Nos. ordered in May, 1968 by 31st October, 1970.

3.99. It was only about this time (August, 1969) that the Board commenced exploring for the first time the possibility of getting this item manufactured by utilising the spare capacity of the Electrical Induction furnace currently on order at their Chittaranjan Locomotive Works. It was, however, found that while it would be possible to develop the manufacture of malleable castings, it was not possible to form any definite estimate regarding the date from which the supplies could begin from Chittaranjan Locomotive Works or the probable rate of supply, till other connected equipments were procured and installed.

3.100. The two firms 'A' and 'B' have not, however, kept up to the scheduled monthly rate of delivery of inserts. The firm 'A' had so far supplied (November 1970) only 2.19 lakh Nos. against the stipulated 5 lakh Nos. to be completed by December, 1970. Firm 'B' had an outstanding of 88782 Nos. when the contractual delivery period expired on 31st October, 1970. The shortfall in the supply of inserts was attributed by the firms to (1) delays and difficulties in obtaining selected variety of scrap etc. (2) delays in expansion of their production capacity.

3.101. The basis on which the price of inserts, had been increased simultaneously in September, 1969 from Rs. 4.75 each, to Rs. 6 and Rs. 5.25 each respectively in respect of firms 'A' and 'B' is not clear. Further the extra increase in cost of Re. 0.75 per insert was granted to firm 'A' when compared to firm 'B' on the special consideration of supply of 5 lakh Nos. by end of December, 1970, involving an overall extra expenditure of Rs. 3.75 lakhs. But supplies at the stipulated rate even at these prices have not materialised.

3.102. The Ministry of Railways (Railway Board) explained (December, 1970) that though as per the D.G.T.D. there were about 25 firms in the country producing malleable iron products, only these two firms could produce satisfactory samples and develop capacity for manufacture of these items. An increase in rates had to be allowed to them as otherwise Railway would not have got the inserts at all which forms a pre-requisite to the manufacture of concrete sleepers.

3.103. It was further stated (January, 1971) that the firm 'B' could offer only a small quantity and was willing to accept a lower increase in rate.

3.104. There was, however, no hold up of manufacture of concrete sleepers owing to the above shortfall in the supply of inserts, as the production of concrete sleepers, lagged far behind the anticipated level, owing to developmental difficulties, changes and modifications in the design found necessary subsequent to ordering, and non-availability of cement and steel, etc. Against the anticipated procurement of 1.75 lakh Nos. in 1969-70, the quantity actually procured by end of March, 1970 was only 9200 Nos.

[Paragraph 19, Report of the Comptroller & Auditor General for the year 1969-70 on Railways].

3.105. Explaining the policy adopted by Railways regarding the use of concrete sleepers instead of iron or wooden sleepers, the Chairman, Railway Board stated during evidence, "The advantage of the concrete sleeper is that it is very heavy and with elastic fastening, it gives a good bed and is able to hold the long welded rail. The number of joints is reduced and the maintenance is reduced and we are able to increase our speed with lesser maintenance. This is the trend all over the world and we require concrete sleepers also for ensuring insulation. We are short of suitable wooden sleepers in this country. They are not available in adequate quantity. These concrete sleepers will enable us to do the signalling work also falling in that category".

3.106. As regards the course of development of concrete sleepers in the Indian Railways, the Railway Board have in a note furnished at the instance of the Committee stated as follows:

"In the year 1964 Railway Board had invited global tenders for the supply of concrete sleepers on Indian Railways and the contract was awarded to the firm namely IFTP of Calcutta for the supply of two block concrete sleepers alongwith fittings in collaboration with M/s Stedef of France. Unfortunately, supply did not materialise and the collaborators fell apart. Thereafter it was decided to evolve an indigenous design to suit pandrol clips (an elastic fastening for which the collaboration was entered into by M/s GKW Ltd., Calcutta with M/s. Lockspikes Ltd., London). This design was tentatively accepted by the Board in the year 1967 and tenders were invited for 1,00,000 Nos. of sleepers per year. This contract was allotted to M/s. Indian Hume Pipe Co., Bombay. In the year 1968 a further order was placed for 1.2 lakh Nos. of concrete sleepers on M/s. Hindustan Housing Factory, Delhi, during the same year the policy

was approved by the Board and it was decided to procure 3,00,000 Nos. of concrete sleepers in the year 1969-70 and raise the procurement to the extent of 6,00,000 Nos. per year by the year 1973-74. Accordingly further tender was invited for 1,00,000 Nos. of sleepers per year and was awarded to M/s. Daya Engg. Works of Gaya.

The terms of the contract provided for the initial supply of 200 test sleepers before starting mass production. The first two firms supplied the test sleepers satisfactorily though not within the delivery schedule period. During the casting of trial sleepers it was ascertained that certain modifications in the design are essential and the same were carried out before asking the firm to go for mass manufacture. The firms took up the mass manufacture in the right earnestness and it was noticed that there were heavy rejections to the extent of 50 to 60% and the manufacture was not proved economical. It was therefore considered necessary to investigate the causes of rejection and trial castings were taken in hand with certain modifications in the technique. M/s. Daya Engg. Works developed top vibration as well as crimping of wires during 1970 and 1971 and the sleepers cast with this developed technique have shown encouraging results. In the mean time M/s. Indian Hume Pipe have been permitted to enter into collaboration for the technical know-how for the manufacture of concrete sleepers with M/s Dow-Mac of England and the clearance has already been given by the Ministry of Industrial Development and Company Affairs. M/s Hindustan Housing Factory have also adopted the use of crimped wire and trial castings are being made.

In the meanwhile RDSO went into the details of design and has brought out major modifications in the design itself as well as specifications and further tenders at 3 different locations have been invited to this design. Already one contract has been placed to this design on M/s K. V. George, Madras in the month of September, 1971 for supply of 2,25,000 Nos. in five years".

3.107. The Committee were informed that as per policy approved by the Railway Board in the year 1968, the programme regarding procurement of concrete sleepers for laying on the track was as follows:—

1969-70	..	3·0 lakhs
1970-71	..	4·0 lakhs
1971-72	..	4·0 lakhs
1972-73	..	5·0 lakhs
1973-74	..	6·0 lakhs

The expectations and actual production of concrete sleepers in 1969 and 1970 was as given below:—

Year	Expected production	Actual production
*December, 1969	20,000	3,942
**December, 1970	1,75,000	21,552

3.108. The Committee desired to know the reasons why only 21,552 concrete sleepers had been produced against an expected production of 1,75,000 in 1969-70. The Chairman, Railway Board explained during evidence, "There was some difficulty in commercial production of concrete sleepers by the party as the rejections were very high and at that rate of rejections it was not proving economic. So they were trying to bring down the rate of rejections. They were working on modifications and improvement of techniques and so on. They have not fully got over it and even now their rejections are to the extent of 5 per cent whereas normally it should not exceed more than 2 or 3 per cent. That is why they have not been able to pick up and produce the sleepers at a sufficiently high rate.

3.109. In a written note about the developmental difficulties, change and modifications in the design of concrete sleepers and other difficulties stated to be responsible for the shortfall and the steps proposed to overcome them, the Railway Board have stated: "The mono-block concrete sleeper is a new item being produced for the first time in the country. Though the trial sleepers were produced successfully by the firms on whom the orders have been placed the mass manufacture received a setback due to heavy rejection to the extent of 50 to 60 per cent. This was mainly due to non-availability of proper quality of cement, non-availability of proper technical know-how for the mass manufacture. To overcome these difficulties, trial castings were made with different qualities of cement from different factories and with different strength. The firms also developed top vibration and crimping of wires. One firm namely M/s. Indian Hume Pipe have also been permitted to purchase the technical know-how from M/s. Dow-Mac of England. In view of these difficulties RDSO also went into the detail of design and to have better results have modified the design for which fresh tenders have been invited."

3.110. As regards the latest position of concrete sleepers, the Committee was informed that "till date 35,000 sleepers have been cast by the three firms out of which about 20,000 have been inspected. Only 6,600 sleepers have passed the tests and 5,400 have been laid in track."

3.111. In the course of evidence, the Committee enquired about the reasons why only 6,600 sleepers out of 35,000 have been tested and passed so far. The Chairman, Railway Board stated, "Because the rejections were high. The inspection had to be carried out with greater care. Normally we carry out a percentage inspection—only about 2½ per cent—but because there were rejections, we had to be a little more careful and the rate of inspection also was lagging behind the production. But the fact is that the mono-block sleeper manufacture is lagging behind and we are seriously thinking of some very special steps, we might have even to go in for a foreign collaboration and get a factory set up for this purpose."

3.112. Asked as to the reasons for the high rate of rejections and the steps taken to improve the quality the witness stated, "Actually, the bond between the wire and the concrete is not gained up to the level required in commercial production. But in laboratory tests and initial manufacture done for the purpose of supplying prototype,

they were able to give the bond, but in commercial production, it does not come up to the level required. This is the reason why one party has obtained permit for getting expert advice from abroad and we may have to go in for setting up some factory for foreign collaboration under the auspices of the railways."

3.113. The Committee enquired whether it was not possible for the Hindustan Housing Factory to undertake the manufacture of sleepers. To this the Chairman Railway Board replied, "With the experience and the equipment that they have got, they have manufactured the sleeper, but they are also having some difficulty. They are not able to get the bond between the wire and the concrete. If the sleepers are to be manufactured with foreign collaboration, some equipment will have to be imported by the Hindustan Housing Factory which will not be in a better position to do that rather than a railway agency. We have got all the experience of concrete work; we have got concrete depot which manufactures and there is no difficulty in picking up the know-how and getting it done in our railways." He further added "Initially, we tried to get it done by a private party. Since we are feeling a lot of difficulty, we are trying to get it done under departmental auspices."

3.114. Referring to the manufacture of inserts, the Committee desired to know the reasons for the delay in the manufacture of inserts by the two firms on which orders had been placed. In a written note on the subject the Railway Board have stated: "While calling for the tenders firms were asked to submit samples alongwith their tenders. These samples were tested by RDSO and it was found that only samples of two firms namely firm A and B were acceptable in physical and chemical tests. These samples did not pass in dimensional tests. However, since the samples of these two firms were found acceptable in physical and chemical tests and it was considered that dimensional corrections can be made while actually producing the inserts, the orders were placed on these two firms.

3.115. The production of a malleable insert is a new item to be developed for the first time in the country. There are some delays in finalising the fixtures and inspection Gauges for the checking of finished products by RDSO. Certain modifications and relaxations in the fixtures were considered necessary and advised to the firms on 3-4-69. Certain changes were incorporated in the design and intimated to the firm on 27th May, 1969." The Chairman, Railway Board also explained during evidence that "There was some difficulty about the correct dimensions and correct quality but they have picked up and now their supplies are coming up at an adequate rate."

3.116. The Committee desired to know on what basis tenders were called for procurement of 6.4 lakhs Nos. of inserts in April, 1969 and the total requirements of inserts reassessed at 7 lakhs in September, 1969. The Railway Board have in a written note stated, "The tenders were invited in March, 1969 based on the orders placed for the supply of mono-block concrete sleepers on M/s. Hindustan

Housing Factory (0.60 lakh per year) and tenders invited for Mirzapur area (1,00,000 lakh nos.). Earlier order of inserts placed on Firms 'A' and 'B' Misco covered only the requirements of orders placed on M/s. Indian Hume Pipe, Bombay (1,00,000 Nos.). The requirement of 7,00,000 was assessed keeping in view the supply position of concrete sleepers by firms who had supplied the test sleepers satisfactorily and had set in for mass production. It was expected that by December, 1970, 1,75,000 nos. sleepers would be available."

3.117. To a question as to the basis on which the prices of inserts were increased simultaneously in September, 1969 from Rs. 4.75 to Rs. 6.00 in respect of one firm 'A' and Rs. 5.25 in respect of another firm 'B', the Railway Board had replied: "As regards (Firm 'A') the quantity of 2,00,000 against the existing order was raised to 5,00,000 nos. The rate against the subsequent tender quoted by this firm was Rs. 7.00 each. By awarding the rate of Rs. 6.00 for 5,00,000 nos. from 2 lakh nos. the administration has actually been benefited by Rs. 0.10 per insert and no extra rate has been paid. As regards (Firm 'B') the rates were increased to cover the increase in cost of steel scrap and tariff on power only which was to the extent of 65 P. each whereas the increase accepted is only 50 P. each."

3.118. The Committee enquired why increase in the rates were allowed to the firms even though they had defaulted in that the supplies of the inserts had not materialised in time. The Chairman, Railway Board stated, "We had initially accepted a rate of Rs. 4.75 per insert and the first firm had said that they will be able to manufacture only two lakh inserts within the capacity and that they could not take a bigger order but they had asked for an increase of 65 paise per insert and by negotiation we could make them agree to 50 paise. The second firm had asked for a rate of Rs. 7.00 per insert in the open tender. The Ministry explored the possibility of getting these inserts manufactured in their steel foundry at Chittaranjan Locomotive Works. But in the absence of advance planning and provision of connected equipment it was not found possible to meet the urgent needs. Therefore, with only these two firms in the field, the Ministry agreed for increase in the price of insert. Sir, it is a question where we try to get the best value for the money we pay.

3.119. In reply to a question why the capacity of the firms in regard to production and supplies was not checked before negotiating increase in price and the rate of supply, the Chairman, Railway Board stated, "Sir, I have the figures of supply of these two firms and their supplies are now quite good. Of course, initially they required experience and guidance and cutting down of cost. They got over the difficulty and according to the latest figures, the total supply by firm B is 1.62 lakhs and that by the other firm is 3.28 lakhs."

3.120. The details as furnished by the Railway Board, of the scheduled delivery as per contract conditions and the actual delivery of inserts by the two firms month by month upto the end of 1970 are given below:—

"The contracts were issued on 17-6-1969 and the orders were to be completed by 31-12-1970 in case of (Firm 'A') and by 31-10-70 in

case of (Firm 'B'). However, the supplies could not be completed as per revised delivery schedule and the extensions have been granted upto 31-12-1970 in case of (Firm 'A') and upto 30-11-71 in case of (Firm 'B'). The actual deliveries made by the firms monthwise are given below:

Month	Firm 'A'	Firm 'B'
October 1968	12	..
November 1968	..	..
December 1968	220	..
January and February 1969	..	..
March 1969	..	336
April and May 1969	..	..
June 1969	1,330	..
July 1969	..	..
August 1969	2,405	..
September 1969	1,710	632
October 1969	6,150	8,000
November 1969	8,360	15,700
December 1969	10,260	23,500
January 1970	6,000	8,150
February 1970	2,880	4,150
March 1970	7,140	11,000
April 1970	9,030	9,000
May 1970	12,630	5,350
June 1970	26,640	13,700
July 1970	14,790	5,500
August 1970	18,030	..
September 1970	30,840	6,000
October 1970	25,380	..
November 1970	34,680	..
December, 1970	28,590	..

3.121. The Committee desired to know whether any action had been taken against the firms for not adhering to the delivery schedule. The Chairman, Railway Board stated in reply, "This was really a development order and we had to persuade the parties a lot before they took this up. It was a question of putting up our own factory or requesting some people who have got experience and machinery and expertise and knowledge to do this, and since they were facing a lot of difficulties with high rejections, we felt we should give them a little time and not involve the penalty clause against them. If we are harsh in this matter we will have no chance for development in the country at all."

3.122. In a written note on the subject the Railway Board have stated, "No action has been taken against the firms for not adhering to the delivery schedule because of the fact that neither any losses have been incurred by the administration due to a setback in the

production of concrete sleepers nor any inconvenience has been caused. However, the rights to levy liquidated damages have been reserved while granting extensions."

3.123. Asked whether the possibility of manufacturing inserts in Railway's own workshops was considered the Chairman, Railway Board stated, "Actually Sir, we do not have real capacity. The firms were only prepared to do the work for us so that we can establish the possibility of manufacturing it in India. The Railway Workshop can give us some guidance about the reasonable cost of manufacture. In any case we require the special electric furnace for this and they have to install this if they are to manufacture this."

3.124. In this connection the Railway Board have also intimated, "In 1957, when drawings were finalised for malleable cast Iron Inserts it was ascertained that there are number of manufacturers supplying malleable cast iron items. Production of malleable cast iron items need certain special heating furnaces and balancing equipment not available in the Railway workshops. Therefore, it was considered desirable to develop this item from existing factories rather than set up a new unit involving considerable investment. It was only in 1969 when response to open tenders revealed that excepting two firms, other firms could not manufacture the item to our requirement that the possibility of production of this firm from existing Rly. workshops was investigated. It was however found not feasible as, though with electric induction furnace capacity could be located, manufacture of inserts would need additional treatment furnaces. Besides the existing capacity of the furnace could not be spared for this work, being required for manufacture of other critical items for the Rlys. In view of this it is not proposed to undertake the manufacture of this item in C.L.W."

3.125. The Committee drew attention to the statement in Audit para that shortfall in the production of inserts by the two firms was partly attributable to difficulties in working selected variety of scraps. Asked whether Railways could not supply the scrap from their own sources, the Chairman, Railway Board replied, "Sir, we assisted them in this respect. But unfortunately our system of disposal of scrap does not involve sorting, we dispose scrap of all types and they require scrap of a particular type. However, we assisted them and they were able to get over the difficulty."

3.126. The Committee were informed during evidence that against the order of 7 lakhs inserts upto the end of August, 1971, 4.91 lakhs of inserts had been received. When the Committee pointed out that in view of very small number of concrete sleepers which had been tested and passed, the quantity of inserts was much out of proportion, the Chairman, Railway Board stated, "This was done under certain assumptions and when something was got to be manufactured and the components have to be ordered on different parties, there is always some possibility of something being little in excess and something being little in deficit." He however added; "Considering the requirement of sleepers for the Indian Railways and various other types of range work, it is not such a big quantity. If we could have avoided it, it would have been a good thing." In reply to another question, the Chairman, Railway Board stated, "The people

who have a set up capacity and who started satisfactorily manufacturing should be able to keep going with reasonable order, or we will again be in trouble for getting inserts. Secondly, there is every possibility in these days of rising prices to our having to pay higher rate, if we try to curtail the number while negotiating with them. For these reasons, it would be wiser to deal with the contract that has been entered into already."

3.127. **The Committee regret to observe that though the Railway Board initiated action in 1964 for procurement of concrete sleepers by inviting global tenders, drawings and specifications for the inserts which were to be cast along with concrete sleepers were finalised only in October, 1967. The two firms 'A' and 'B' on whom orders for supply of 4 lakhs inserts were placed in May 1968 and who were required to complete the supplies by April, 1969 could commence their production only after July, 1969 when the modifications in the specifications of the inserts were finalised with the help of Research, Design and Standards Organisation.**

3.128. **It is seen that at the time of first tender out of the 27 firms in the country who tendered and who were known to possess capacity for manufacture of these fittings only 2 firms 'A' and 'B' could be selected for placing orders for production of inserts and in the second tender opened in April, 1969 out of the 18 firms which tendered, the sample of only one firm, viz. firm 'A' on whom orders had already been placed on the basis of earlier tender, was found satisfactory. This only indicates that the item was difficult to manufacture and hence there was need for advance planning.**

3.129. **During evidence the Chairman, Railway Board stated that the possibility of getting these inserts manufactured departmentally was explored but in the absence of advance planning and provosion of connected equipments it was not found possible to meet the urgent needs and therefore they agreed to the price increases asked for the two firms even though they had not kept up the delivery schedule. The Committee find that in view of the developmental difficuties the production of concrete sleepers had not yet picked up. In fact, against an expected production of 20,000 sleepers by December, 1969 only 3,942 sleepers were actually produced. In view of the very slow progress in the manufacture of concrete sleepers, the element of urgency pleaded for the increase in the rates allowed to the two firms does not look very convincing. Had a realistic assessment of the requirements of inserts been made the additional order for 3 lakh inserts placed on the firm 'A' after agreeing to the enhanced rates could have been postponed. The Committee would like the Railways to learn a lesson from this lapse and ensure that such instances do not occur.**

North Eastern Railway—Acceptance of an unusual Condition in a contract for sale of scrap Rails

Audit Paragraph

3.130. In October, 1966 the Railway Administration accepted the offer of a firm for purchase of 7000 tonnes of scrap rails at Rs. 435/- per tonne. The conditions of the sale *inter alia* specified at the instance of the firm that the party would deposit the cost and lift the

rails by the end of June, 1967 and the Railway Administration would have right to cancel the deal in the event of undue delay in lifting the materials by the purchaser. On 3rd December, 1966 the Railway Administration, at the request of the firm, agreed to the total payment and taking delivery of the rails within 8.5 months of the date of receipt of the letter of acceptance by him and that the contract would not be cancelled on account of delay in the lifting of the materials. The acceptance of the latter condition which was done without consulting the Law and Finance branches made the currency of the contract indefinite and taking advantage of this position the firm delayed the off-take of the rails. In February, 1968, when the firm had lifted only 1000 tonnes of rails, another firm offered to pay Rs. 455 per tonne for the balance of 6000 tonnes rails. Even though acceptance of this offer was not benefited the railways to the tune of Rs. 1.2 lakhs, the offer was not availed of as it was apprehended that the termination of the contract would create legal complications.

3.131. By April, 1970, the firm had lifted 5125 tonnes only, leaving a balance of 1875 tonnes, when the contract was cancelled by the railway as the firm refused to take the delivery of this rails at site and insisted that the railway should transport it to the railway stations. The firm has obtained a stay order from a Court restraining the administration from sale of balance quantity of 1875 tonnes.

3.132. The Railway Administration explained (December, 1970) that the offer of Rs. 455 per tonne made by the second firm in February, 1968 was not in response to a tender enquiry or any other communication by the railway and the acceptance of that offer would lead to complications. As regards the condition accepted by the railway that the contract would not be cancelled on account of delay in lifting the materials, the Railway Administration stated that the condition was, unfortunately, not correctly worded and the wordings as they stand are legally unsound since it amounts to granting a perpetual lease of life, despite all faults, and such a condition, therefore, is void and not binding on the railway. It was further stated that the contract was not terminated due to uncertain market conditions.

3.133. It may be observed that the Deputy General Manager (Vigilance) had pointed out in March, 1968 that the firm, who had offered Rs. 455 per tonne, had purchased 1700 tonnes of scrap rails at the rate of Rs. 482.51 per tonne which shows that the prices were rising and uncertainty of the market is not established. As regards the plea that the contract could have been terminated by the railway legally, it is observed that the law officer had opined that in the event of termination the possibility of the party going to arbitration and raising certain disputes under the agreement was not ruled out.

[Paragraph 21 Report of the Comptroller & Auditor General for the year 1969-70 on Railways.]

3.134. The Committee were informed that no formal agreement was executed by the Railway Administration with the firm. The acceptance of the tender on the original terms and conditions of the sale stipulated in the tender form with certain modifications was conveyed to the firm by issue of an initial acceptance latter dated 21-10-66. According to the Railway Board the standard conditions of

sale forming part of tender document provided the following clauses to deal with failures of firms:

"(c) The successful tenderer/s shall deposit the full cost of the material, after the acceptance of the tender. The amount shall be deposited in cash or D.A.C. of State Bank of India in favour of the Financial Adviser & Chief Accounts Officer, N.E. Railway, Gorakhpur, within 14 days of receipt of the acceptance, failing which, the earnest money shall be forefeited to the railway administration, cheques will not be accepted."

(e) The successful tenderer will be required to remove the scrap rails from the site within the free delivery period i.e. within two months from the date of issue of the release order. In case of his failure to do so, a ground rent of Rs. 4/- per day or part thereof shall be levied. In the event of undue delay (to be decided by the Controller of Stores, N.E. Railway, Gorakhpur) in the removal of the whole or part quantity, the Controller of Stores, reserves the right to cancel the sale and resell the material lying unremoved at the risk and cost of the successful tenderer."

3.135. The clause (e) above in regard to levy of ground rent and cancellation due to delay in removal was modified by the acceptance of the firm following condition:

"That in case of any delay on your part you are required to pay the storage charges @ Re 1/- per day per M/T only and the contract will not be cancelled on account of delay".

3.136. The circumstances under which this modification was agreed to were explained by the representative of the Railway Board during evidence as under:—

"When the initial letter of acceptance was issued, the contractor pointed out that he had stipulated a condition in his offer that the contract would not be cancelled by the Railway Administration. This was processed by the Controller of Stores and then the letter of acceptance of this term was intimated in December to the contractor."

3.137. Another modification in the terms and conditions of sale, as stipulated in the original tender, which was agreed to in December 1966 was that the firm was required to make the complete payment and take delivery within 8½ months from the date of receipt of acceptance letter. As the firm failed to life the entire quantity of scrap, they asked for extension of time. In this connection the witness stated, "This extension of time was given up to the end of December, 1967. Immediately when the matter was re-examined and while it was being examined in consultation with the law officer as to what to do in this case which has been given out in a defective manner, Railway got an unsolicited offer for higher amount, but there was no security deposit with this and the offer was not taken into serious consideration."

3.138. The Committee drew attention to Section 480 of the Railway Code which provided that any unusual conditions in a contract should be approved by the General Manager acting in consultation with his legal and financial adviser or if it is beyond his competence,

by the Railway Board. Asked why the provisions of Section 480 of Railway Code were not followed before accepting an unusual condition in the contract, the representatives of the Railway Board replied that there was a lapse.

3.139. The Committee enquired whether any investigation was made as to the circumstances under which a special condition in the contract was accepted. The Chairman, Railway Board informed the Committee that; "In this particular case, there was a presumption that what had been done was due to a misunderstanding. An enquiry will be held in order to deal with this matter effectively. In the original tender, the contractor had laid this condition and then negotiations were held with the contractor and the contractor gave his revised terms and conditions without including this condition or withdrawing the condition. As from the original tender, the Tender Committee felt by implication that he had withdrawn the condition and an acceptance letter was issued to him. When the contractor wrote saying that he had put in a condition then the Controller wrote on the file that this may be checked up and if it is in accordance with the Tender Committee's proceedings, this may be issued. The actual correspondence was handled by the Track Supply Officer and he felt since by implication this condition had not been withdrawn, this is also approved. It was not done in a lighthearted way to flout the order or assume the power of a higher authority. We shall hold an enquiry and try to fix the responsibility."

3.140. Later on in a written note the Railway Board have stated, "A Committee consisting of Senior Deputy General Manager, F.A. & C.A.O. and Controller of Stores has been constituted by the Railway Board to enquire into the matter. The Committee have to record evidence of a number of officers including members of the Tender Committee. Two of the members of the Tender Committee have retired and the Committee are trying to get these officers also to record their evidence. The enquiry is expected to commence by the middle of next month and will be completed as soon as possible thereafter."

3.141. **The Committee are unhappy to observe that in complete disregard of Section 480 of the Railway Code, an unusual condition specified by the tenderer in his offer for purchase of scrap was accepted without adequate scrutiny. Besides this, no formal agreement providing for essential safeguards like sale at the risk and cost of the contractor in the event of default by the contractor was executed. During evidence the Chairman, Railway Board admitted that there was a lapse in this case and promised to institute an enquiry into the whole affair. The Committee are informed that an enquiry committee has since been constituted. The Committee would like to be apprised at an early date of the action taken for fixing responsibility on the basis of the findings of the enquiry Committee.**

CHAPTER IV

UTILISATION OF ASSETS

Performance of Flash Butt Welding Plants on the Indian Railways

Audit Paragraph

4.1. Welding of rail joints increases the life of rails as well as that of wheels of rolling stock that run over it, and facilities comfortable and noiseless ride. The rails are welded generally by Thermite process or Flash Butt process. Under the Thermite Process, welding of rails is done at the site of track under a contract with some firms in India who have developed necessary techniques and processes for the purpose, railway providing only labour and stores therefor, at their own cost. Under Flash Butt process rails are welded departmentally with automatic flash butt machines at the plant depot from which welded rail panels are transported to the site of the track and laid. On the Indian Railways, prior to 1960, departmental welding with flash butt machine was being done on a small scale at the plant depots at Kalvan and Chalisgaon (since 1950 and 1959 respectively) on the Central Railway, at Bandel (since 1958) on the Eastern Railway and at Rosa (since 1948) on the Northern Railway.

4.2. Rail joints welded by Flash Butt process are universally recognised as stronger and cheaper than those welded by Thermite process. In November, 1960, with a view to carrying out flash butt welding of track more extensively than hitherto and reducing the lead in transporting long welded rails, the Ministry of Railways (Railway Board) decided to procure additional flash butt welding plants. Global tenders were invited in October, 1961 for procurement of 6 Nos. of flash butt welding machines, mobile type to be mounted on special flat wagons and capable of being shifted to different regions. In view of the difficult foreign exchange position, order was placed in the first instance only for 3 flash butt machines in May, 1962 on a firm in U.K. at a cost of £37,506 each (total cost £1,12,518 FOB, UK Port) to be allotted to the Western, Southern and South Eastern Railways. The remaining three plants intended for Eastern, Northern and South Central Railways were ordered in April, 1964 at a cost of £ 39,465 each (total cost £1,18,385 FOB). The mobile set ordered for each Railway comprised main rail welding equipment, a deisel generator, its stand-by and other accessories to ensure its own power supply.

4.3. In February, 1963, the Railway Board decided to keep the mobile unit to be procured to be mounted on stagings instead of on special wagons as the plant may not require frequent shifting. One of the allottees, the South Eastern Railway Administration, decided (October, 1963) with the Railway Board's approval (April, 1964) to run the machine with power supply from the State Electricity Board instead of generating power by using the diesel generating sets ordered with the welding machine as power was available at the site chosen. Considerable saving through reduction in welding cost (estimated at Rs. 5 to 6 per joint) was expected thereby. With the subsequent commissioning of the welding plant on South Eastern

Railway (October, 1966), the diesel set and its auxiliary had to be put to alternative use. The other two new welding plants ordered in May, 1962 were kept as mobile units on Southern and Western Railways. However, the three plants ordered in April, 1964 were commissioned in 1969 and 1970 as stationary plants in view of Board's later decision in 1967 to keep the plants stationary as far as possible. Only the welding plants on South Central and Northern Railway could be commissioned from the beginning (i.e. January, 1969 and April, 1970 respectively) with power obtained from outside source and the diesel set and its stand-by are either being put to alternative use or kept as stand-by. The remaining plants on the Western, Southern and Eastern Railways were commissioned (April, 1964, August, 1965 and August, 1970 respectively) with current generated by their own diesel set, with resultant increased operational cost of welding. The welding plant at Sabarmati (Western Railway) changed over to outside power June, 1968. In the case of the plants at Arkonam (Southern Railway) and Moghalsarai (Eastern Railway) the question of taking power for the welding plant is under correspondence with the State Electricity Board/Electricity Companies. The delay in the changeover to outside power supply in these cases is attributed to getting single phase current for the welding plant from State Electricity Board/Electric Supply Companies. While problems exist in obtaining power from outside as the welder requires large quantities of single phase current intermittently, the device adopted by the South Eastern and South Central Railways namely, providing a direct feeding transformer for single phase current could have been adopted wherever possible.

4.4. It is evident from the above that prior to placement of orders for mobile flash butt welding set in may, 1962, the availability of the special type of wagon needed to mount mobile plants, as well as the advantages in operational cost by keeping the plants stationary at location where power was available was not investigated. It may be mentioned that the suppliers of the equipment and the Eastern Railway Administration brought to the notice of the Ministry of Railways (Railway Board) (January 1962) the desirability of importing the welding set without the power equipment prior to the placement of order, in the interest of economy and saving of foreign exchange. In August, 1967, based on the recommendations of a foreign expert, the Ministry also issued instructions to all Railways for adoption of a fixed installation with attendant advantages in terms of facilities for handling treatment of rails prior to and after welding, cheaper power supply from outside sources, which could not be had in a mobile plant.

4.5. The import of the six diesel generating sets, its auxiliaries, etc., ordered along with the welding plants in two instalments (May, 1962 and April, 1964) and subsequently rendered or likely to be rendered surplus for the welding unit had cost the Railways £1,33,728 F.O.B. in foreign exchange. Further during the period of their operation, the cost of welding has also been increased to the extent of Rs. 5 to 6 per joint.

4.6. Besides the above, the commissioning of the welding plants imported under the two orders referred to above have been considerably delayed on some of the Railways. The welding plants and

the accessories under the earlier order of May, 1962 were received and commissioned by the Western, and Southern Railways, between June, 1963 and August 1965; on the Southeastern Railway, this was commissioned only in October, 1966 after a delay of over 2 years. On the Western Railway, though there was not much delay in commissioning, the plant could not be worked to its normal capacity till 1965-66 mainly for want of load. During the same period contractual commitments entered into in May, 1963 (i.e. a year prior to commissioning of the flash butt welding plant) by the Railway Administration for welding by the Thermite process of about 788 track miles or 1.63 lakhs joints had to be discharged.

4.7. Similarly the the welding plants intended for South Central, Eastern and Northern Railways under the later order (April, 1964) were received between April, 1966 and February, 1967. On the South Central Railway, the machine was commissioned from 8-1-1969 (again a delay of about 2 years). The Northern and Eastern Railway could commission their plants only by end of August, 1970 and April, 1970 respectively (nearly 4 years). The delay in these cases was mainly attributed to delay in decision regarding the siting of the plant, its layout etc., arising out of the need for implementing certain suggestions in the matter given by a foreign expert in May and June, 1967. However, the changes suggested in the foreign expert's reports such as choice of the site with sufficient spaces, scope for further expansion, entrance at one end exist at the other etc., meant essentially for a rational plan of lay out cannot by themselves explain inordinate delay in commissioning.

4.8. As a result of these delays, the main objective of the Ministry of Railways (Railway Board) formulated in 1960 to adopt flash butt welding more extensively in preference to thermite welding could not be achieved to any great extent so far as indicated in the table given below:—

TABLE

Year	Track welded (in Track kilometres)				
	Thermite Process		Flash Butt welding 3 5 rail panel laid in track	Normal capacity for flash Butt Welding available	Total welded track for the year
	Short welded panels (3 5 rails)	Long welded panels (0 8 Km length)			
1961-62	701	..	202	460	903
1962-63	1,076	..	223	460	1,299
1963-64	1,970	2	332	460	2,241
1964-65	1,883	6	283	575	2,172
1965-66	1,520	24	278	645	1,822
1966-67	1,361	34	382	(805)*	1,777
1967-68	962	102	450	720 (805)* 865 (1,180)*	1,514
1968-69	1,137	102	668	875 (1,180)*	1,907

*Figures in brackets indicate the capacity that would have been available if the imported machines already received on Railways were commissioned after a year of their receipt.

4.9. The latter was accepted by the Ministry as inescapeable only for site-welding of short-welded panels prepared in flash butt welding plants into long welded panels of half a mile or more or welding in remote sections in view of transport problem.

4.10. On the assumption of Rs. 26.75 and an average rate of Rs. 10.00 per joint for flash butt weld on account of operation and transport cost respectively and Rs. 50 per joint for thermite weld the extra expenditure due to adoption of welding by thermite process in the years 1967-68 and 1968-69 for Northern Railway alone (estimated at 31,436 joints) works out to Rs. 4.17 lakhs.

4.11. The Ministry of Railways (Railway Board) explained (December, 1970) that though thermite weld is no doubt less desirable, the cheapness of overall cost of flash butt weld depends on the lead cost and an average rate of Rs. 10 per joint as lead cost may be attainable only with certain improvements in turnround of rakes and efficiency in transportation with improved design of rakes for which efforts are in hand.

4.12. In regard to delay in commissioning of the plants, the Ministry stated that erection of a welding plant is a major project costly nearly Rs. 20 lakhs. Considerable planning has to be put in advance and during installation many items of structural work and equipments have to be executed in a coordinating way to exacting technical requirements. Considering all these circumstances period taken for commissioning various plants cannot be considered unduly long.

4.13. The Ministry of Railways (Railway Board) have explained (January, 1971) the delay in the case of plant on the South Eastern Railway as being mainly due to time in getting possession of land. The sites of the plants on Eastern and Northern Railways, had to be changed from consideration of transport of rails and the recommedations of French Expert received in August, 1967. Commissioning of the two plants on the Northern and Eastern Railways also involved additional period for careful adjustment of machinery to obtain desired quality of welds.

[Paragraph 40, Report of the Comptroller and Auditor General for the year 1969-70 on Railways].

4.14. The Committee were informed during evidence that it was difficult to say what will be the extent of welding on Indian Railways as rails on all the trunk routes and important lines had to be welded. The Chairman, Railway Board, however, indicated that roughly about 35,000 Kms on the broad-gauge was ultimately to be welded. He also stated that same importance was not being given to the welding of rails on the metre-gauge as the advantages of welding were much more on broad-gauge.

4.15. The Chairman Railway Board further informed the Committee that about 20,000 Kms. of rails had so far been welded. The following break up of the rails welded by thermit system and by Flash Butt system has been given by the Railway Board:

UPTO 31.3.1971

Aluminio Thermit Process			*Flash Butt*		
BG	MG	TOTAL	BG	MG	TOTAL
10157	4666	14823	*4269	516	4785

*This includes 120 Kms. welded by gas pressure.

4.16. As regards the cost of welding by the thermite process and by the flash butt process, the Chairman, Railway Board states: "The cost of welding a joint by the thermite welding system is on an average about Rs. 45 and by the flash butt welding system, it is about Rs. 40, a little less than Rs. 40. But we have to take into consideration the cost of transport in the case of flash butt rails as thermite welding is done at the site itself". He continued, "This depends on whether the movement is done by the departmental material trains or by traffic trains. The traffic trains movement is done on the Railway material consignment rate which is a very low rate. And on some of the Railways they are moving it by traffic trains".

4.17. When the Committee enquired how it was claimed that the cost of flash butt welding was cheaper as compared to the thermite process, the Chairman, Railway Board deposed, "Sir, the cost of the welding is less in the case of the use of welding plant, but we have to take into consideration the cost of transport. If the transport is economical, then upto a certain distance the flash butt welded joint would also be cheaper". He further added, "We have taken into consideration the availability of rails in the case of flash butt welding plant and also the capacity for movement. With the facilities that we have got and with the special type of stock, if we send them too far away, we will not be able to get them back at the welding plant in time to keep pace with the welding. And if supply of rails does not become regular, our labour remains idle and the cost for welding per joint goes up. In the case of thermite plant, most of the factors are controllable".

4.18. The following statement furnished by the Railway Board gives the comparative cost of welding a joint by the thermite process and by the Flash Butt system:

Cost of Thermite and Flash Butt Welds

Railway	Thermite 52 Kg.	Joint 90 R	F.B.W. 52 Kg.	Joint 90 R	Cost of Transport — Approx. lead in Km.	Cost	Remarks
Central ..	38·08	36·58	22·63 Kyn. 29·97 CGX.	..	150	1·04	Traffic (RMC).
Eastern ..	52·67	48·03	40·04	31·24	100	16·21	Deptl. rakes
Northern ..	42·22	..	30·42	..	400 (300)	12·61 (44·00)	Traffic (RMC). Deptl. in 1968
Southern ..	53·33	43·55	29·78	26·93	50	19·98	Deptl. rakes.
S.C. ..	45·98	..	37·37	37·37	100	5·41	Traffic (RMC)
S.E. ..	50·09	45·35	36·30	..	100	8·53	Traffic (RMC)
Western ..	55·50	52·50	21·67	21·70	400	53·89	Deptl
Approx Average	48·65	45·20	31·00	29·30	300 (Approx)	17·20	

4.19. In this connection, the Railway Board have stated: "It may be seen that flash butt welded joint is cheaper upto certain leads beyond which thermite is cheaper. Financial implications would therefore, depend upon lead. Furtnern wherever traiic BFR wagons could be utilised rates (RMC) would be cheaper. Railways have been advised to adopt this practice to reduce the cost of transport".

4.20. In reply to a question as to the decision of the Railway Board about the use of welding system on the Railways, the Chairman, Railway Board stated: "Our intention is to use the flash butt welding plants to the maximum etxent provided the lead is not so much and in some areas where the movement is difficult for the traffic department to do the work is done by the thermite welding process".

4.21. The Committee were informed that out of the four older plants at Kalyan, Chalisgaon, Bandel and Rosa, three were working as fixed units and only the plant at Chalisgaon (Central Railway) was of mobile type. This plant was shifted to Eastern Railway only once in 1955 and thereafter it has been working at Chalisgaon without any further shifting.

4.22. Asked why the Railways preferred to order mobile flash butt welding plants in October, 1969, the Railway Board have in a written note stated, "Main factors that restrict the utility of a fixed welding plant is the cost and difficulties of transporting welded panels over long leads. Taking this into account, Board decided in 1961 to provide each Railway with one fixed and one mobile unit. As at the time three out of 4 plants were fixed, initial procurement was for six mobile plants. However, need for higher quality of weld required for modern conditions of transport calls for considerable improvements in welding technique and quality which fit in better with stationary operation of the plant. Consequently in 1967 Board decided to have only stationary plants in future".

4.23. To a question whether any expert opinion was taken before ordering mobile plants, the Chairman, Railway Board replied, "In 1963, we did not have many mobile plants and the amount of work to be done in the country was so much that the need for shifting the mobile plant did not arise at that stage. There was one plant on the Central Railway which had been shifted once and refixed there. It is only when there is progress in the work and a particular area is completely covered that the need for shifting arises. We had not come to that stage yet".

4.24. The Committee pointed out that the Railways had been working four plants on both mobile and stationary types for quite some time but a decision to have fixed types of plants was taken in 1967 only after obtaining the opinion of a French expert. The Chairman, Railway Board thereupon explained: "The position is that the first plant was imported just before the World War and our experience in regard to the functioning of this plant in the war years and the years immediately thereafter was not adequate. The welding that was done on the railways with the flash butt welding plant was not giving sufficiently good quality in regard to alignment and

surface and it was considered necessary that we should try to get expert opinion from a country which had not supplied us the equipment. We got the equipment from Britain and we therefore felt that it would be desirable to get expert opinion from another country, and since France had a very good name in regard to improvement of the track and they had achieved a record in high speed operation, it was decided to take advantage of the facility of Indo-French Technical Cooperation Programme and to get a French expert for this purpose. When he came here and saw our plant, he also saw our old plants as well as proposals for installation of the new plants. He said that if we wanted to ensure quality then we must have it stationary. This is the main object of building up the stationary plant. It is better that we do not have the mobile plants operated on vehicles as the quality of the weld will not be good and he gave his opinion on the basis of experience in his own country. After taking all these factors into consideration, we have decided not to have any more mobile plants for the Indian Railways. The object of having a mobile plant was originally to see that the cost of transport is kept under control and since quality was the main factor involved, it was decided that we should work the plant efficiently in order to get good quality and keep the transport cost within limit and to serve a particular area and to deal with this work which is remaining outside the area by the thermite welding process".

4.25. The Audit paragraph states that the suppliers of the equipment and the Eastern Railway Administration brought to the notice of the Railway Board, as early as in January, 1962, the desirability of importing the welding sets without the power equipment in the interest of economy and saving of foreign exchange. In this connection the Railway Board have intimated: "Reduction in the price of plants and economy in the cost realisable by ordering fixed welding plants were brought to notice by the manufacturers themselves. There was nothing new in the suggestion made by the suppliers as the fact that welding plant without generators would be cheaper than the plant with its own power generators is obvious as cost of welding unit is same in both cases. Economy in operational cost was not touched upon as this would depend upon many other factors like tariff, proximity of supply, cost of diesel etc."

4.26. In February, 1963, the Railway Board decided to keep the mobile units (to be procured) mounted on stagings instead of on special wagons as the plants may not require frequent shifting and because there was shortage of special wagons. The Committee enquired whether the availability of special wagons was not considered before importing the mobile sets. To this, the Chairman, Railway Board replied: "These special types of vehicles are manufactured in the country. The Railways were short of this type of vehicle but this was not a problem. That was based on the situation at the time we took a decision in this regard".

4.27. The Audit paragraph states that in October, 1963 keeping in view the Railway Board's instructions to keep the plants stationary, the South Eastern Railway Administration requested for permission to run the plant with power from the State Electricity Board.

It was also explained by the Railway Administration that this would reduce considerably the cost of welding. This arrangement was agreed to by the Railway Board. The Committee asked if the Railway Board were convinced of the economy in operational cost due to working the plant with power from outside source, why did they not issue similar instructions to Southern and Western Railway Administrations, who were also to receive the mobile plants already on order. In a written note on the subject, the Railway Board have stated: "The concept from the very beginning was to impart mobility to the plants by adding an independent power unit. Economy in the operational cost was not the criterion in the choice of welding plants, but proximity to the work was the main consideration in selecting sites. Therefore, there was no question of issuing any instructions to Southern and Western Railways for locating plants where cheap electricity was available. It is further pointed out that power from grid is not economical in all cases. However, once decision has been taken to operate them as fixed plants, efforts are being made to utilise power from grid wherever available and economical".

4.28. The Audit have, however, informed the Committee that "the various Railway welding plant engineers at their periodical meeting to discuss the common problems in the working of welding plants noted (September, 1963) the savings anticipated in running the welding plant with current obtained from outside source of supply (Estimated at Rs. 5 to 6 per joint). In a subsequent meeting in May, 1964 of this committee (in which a representative of the suppliers of the welding plant was also present) it was noted that all over the World, plants are at fixed locations with elaborate equipments for maximum output of good quality and considering past experience in Indian Railways the plants were likely to remain in one location for several years. Keeping the machines on wagons as at Chalisgaon on Central Railway unduly raises the conveyor line above ground with resultant difficulties in works. The occupation of wagons for years is unremunerative".

4.29. The Chairman, Railway Board, stated during evidence: "The import of plant without the power unit was though of even earlier in those areas where there was a dence electric network with a very heavy industrial load as near Bombay. But elsewhere, we were not able to persuade the Electricity Board to accept this till very recently".

4.30. He further added, "Till recently the State Electricity Board Authorities were not in favour of allowing the plant to be connected to the system, because it involves a very heavy drop in voltage every few minutes when the actual welding is due to take place. This difficulty was not over only recently after convincing them of a method that has been followed abroad and put up substations in places where there is a substantial electric load".

4.31. The Committee desired to know whether efforts were made to persuade the Electricity Boards to agree to loads being provided for the welding plants. The Chairman, Railway Board deposed, "It is not a question of persuading the Electricity Board. As per the Indian Electricity Act, they do not agree to any load being connected

which involves a drop in voltage of 5 per cent for low tension and 12 per cent for high tension; unless special arrangements are made, there was some adequate base load and also close by a substation was installed, there was no possibility of these conditions being fulfilled".

4.32. He continued, "Even today we have got two plants which are working with their own generators because the State Electricity Boards are not agreeable to give power in that area to us. Wherever they have been able to get the power, in view of the economy of about Rs. 5 per joint, it was considered that we should avail of the offer".

4.33. In reply to a question the Chairman, Railway Board stated during evidence, "The first attempt that was made was at Jharsuguda, whereby we could develop a new technique, having separate substations and having a base load. We were able to persuade the Orissa State Electricity Board, and once they agreed to this, we started approaching them to accept this technique and to persuade them that this will not cause them much difficulty in voltage fluctuations and in respect of the complaints from other consumers".

4.34. The Committee pointed out that although the Southern Railway plant at Arakonam was commissioned in August, 1965, the State Electricity Board authorities were first approached on 18-6-1970 for making available the necessary power for the plant. The explanation given by the Chairman, Railway Board for this was that the matter regarding supply of direct power for plants was being negotiated with other Electricity Boards and only in 1968 the technical objections raised by the Boards could be resolved. The Chairman, Railway Board further added, "The fact that they have not agreed even now to supply power would show that if we had approached them earlier without any concrete suggestion, they might not have agreed. When we approach them for something which is a depature from normal, the first thing that they ask is if it has been done anywhere in India. They would not agree to something done in Japan or elsewhere. If they are told that it is done in some other State, they check and consider it".

4.35. In reply to a question however, the witness stated, "I accept that the fact that we had the generating sets must have acted as a disincentive to take urgent action to persuade them to give us power".

4.36. The Committee pointed out that in some cases even the plants imported with generating sets could not be commissioned for a very long time. Giving reasons for the delay, the Chairman, Railway Board stated, "I agree in a few cases we changed the site after discussing the lay-out and the suitability of the site for movement etc. after the arrival of the French expert. In one or two cases, we had difficulty in getting land. These days land acquisition is a problem involving in many cases a lot of delay. On the South Eastern Railway it took about 1½ years to get possession of the land".

4.37. The plant allocated to Eastern Railway was received in April, 1966 and the construction work was completed by the end of 1969. Asked as to the delay the Chairman, Railway Board stated, "The Eastern railway case is a bad one. I accept there has been some delay. But on the other Railways, they took much less time".

4.38. The Committee were informed that the plant on the Western Railway was received in July, 1963 and installed in April, 1964. The Committee enquired how it was that it took only 9 months to instal the plant on Western Railway while in other cases there was much delay. In this connection the Chairman, Railway Board state, "On the Western Railway, in Sabarmati we had our own land and a well-established workshop. We had no difficulty in installing the plant and bringing it into commission. But on the South-Eastern land had to be acquired. On the Southern they did not take much time to instal the plant".

4.39. In reply to another question it was stated that the acquisition of land for the plants and the change in sites were mainly responsible for delay in the commissioning of certain plants. The witness also added, "Normally, land acquisition does not take much time. But we come across some cases where local resistance has to be overcome. We have had a few cases where we have done it on a high priority, but in a small number of cases just because local conditions become difficult, our plant gets delayed".

4.40. The Committee enquired if the flash butt plants had been commissioned earlier, would it not have been possible to resort to less thermit welding than actually done between the years 1966-67 and 1969-70. In a written note, the Railway Board have stated; "Considering the large scope of welding both by Thermit and Flash Butt Processes, it is difficult to say whether between the years 1966-67 and 1969-70 less thermit welding would have been done than actually carried out if welding plants had been commissioned in this period were for Northern, Eastern and South Central Railways (S.C. Rly. was commissioned without any delay). Requirements of Flash Butt panels for Northern and Eastern Railways were met from existing plants and Bandel and Rosa (Since scrapped). Besides in long welded sections, flash butt welded panel require further thermit joints at site".

4.41. It was pointed out by the Committee that as was evident from the Audit paragarph even after the commissioning of plants they were not utilised to the fullest capacity. To this the Chairman, Railway Board replied: "The reason why we have not been able to work to the full capacity is shortage of rails, due to which our track renewal programme got a set-back. Secondly, relaying programmes had to be taken up due to shortage of rails selectively in those places where the need for relaying was most urgent. In many cases, these did not fall within the area to be fed by the particular plant".

4.42. The Committee were informed that the maximum utilisation was 60 to 70 per cent and in some cases it was only about 45%. The witness also stated that due to under utilisation of plants the cost of welding went up because of higher over heads and the under-utilisation of labour.

4.43. As regards the proposals for fuller utilisation of the existing capacity the Chairman Railway Board stated: "If we get the rails freely, we shall be able to utilise the plants not only for welding the new rails but also the released rails to be used on less important sections".

4.44. The Committee enquired why the Railways were dependent on the private contractors for the rail welding. It was explained that "Even in thermite welding, we got only the materials for welding from the contractor and in many areas, the work is done departmentally. We have already got a programme for considering the departmental manufacture of welding portions, but the question is whether it will be economical compared to what the contractor is likely to charge when he knows that we are going to manufacture it. We have set up a small pilot plant in Chittaranjan which shows we can make it cheaper at present".

4.45. **The Committee regret to observe that prior to placement of import orders for mobile flash butt welding sets in May, 1962 detailed investigations were not made by the Railway Board to find out whether mobile plants with their own generating sets or fixed plants which could be fed with outside power would be more suitable for their requirements. The desirability of importing the welding sets without power equipment was brought to the notice of the Railway Board both by the suppliers of the equipment and the Eastern Railway Administration well before the placement of order and even otherwise the Railways had previous experience of working both mobile as well as stationary type of welding plants but still it was decided to go in for mobile units with power equipment. It is further seen that in February, 1963 the Railway Board issued instructions to keep the mobile units mounted on stagings instead of on special wagons as it was felt that the plants would not require frequent shifting. Following this decision the South Eastern Railway Administration was allowed to run the imported mobile plant as stationary unit fed with power from the State Electricity Board. The policy of ordering mobile units was, however, not subjected to a review nor were any instructions given to Western and Southern Railways who were yet to receive the imported plants, about the desirability of working the plants with direct power.**

4.46. **The Committee further note that in the periodical meetings of the Railway welding plant engineers held in September, 1963 and May, 1964, the question of savings anticipated in running the welding plants with power obtained from outside source of supply was considered and brought to the notice of the Railway Board through the minutes of the meetings. Despite this the Railway Board did not make any change in the order for the further three sets placed in April, 1964. A final decision about keeping all the welding plants stationary was, however, taken in August, 1967 after the report of a French Expert who visited all the Flash Butt welding plants on the Indian Railways. The Committee feel that if the Railway Board were not inclined to rely on their own past experience it would have been much better to have the opinion of an expert well before the decision to import 6 mobile units was taken.**

4.47. **The delay in taking a decision for keeping the welding plants stationary to be fed with direct power from outside source not only resulted in the avoidable import of power generating units attached to the welding plants but also enhanced the cost of welding which was cheaper to the extent of Rs. 5 to 6 per joint if power was obtained from outside source of supply.**

4.48. **The Committee also feel that the time taken for installing and commissioning the plants was excessive in many cases. Although, on the Western Railway, the plant was commissioned within a period of about 9 months yet on other Railways it took a very long time ranging between 1½ years to nearly 4 years. Besides this there was abnormal delay in taking up the question of power supply with the respective State Electricity Boards. For example on Southern Railway the plant was commissioned in August, 1965 but the correspondence to obtain power from the State Electricity Board was initiated on 18-6-70 i.e. after about 5 years.**

Underutilisation of Sleeper Treatment Plants on the Railways

Audit Paragraph

4.49. Non-durable wooden sleepers are laid in the track only after proper preservative treatment with creosote and furnace oil of prescribed mixture. For ensuring adequate treatment of the non-durable sleepers procured from the State Forest Departments, the Ministry of Railways (Railway Board) established four sleeper Treatment Plants on the Northern, North Eastern, North-east Frontier and Southern Railways between 1923 and 1968 at a cost of Rs. 88.49 lakhs to serve the different regions of the Indian Railways with a capacity to treat nearly 2 lakh cubic metres or 22 lakh equated B.G. Sleepers per year.

4.50. The raw sleepers required for the treatment plants are procured from the adjacent state forests through the agency of the State Forest Departments. It is observed that from 1964-65 (sleeper year) there has been considerable fall in the offtake of raw sleepers by the Railways. (Annexure* II(a) to this Report).

4.51. The quantity of raw sleepers treated and supplied to the Railways for use in the track by the treatment plants have gone down correspondingly to about 11 lakh equated B.G. sleepers in 1968-69. The cost of treatment sleepers per cubic metre has risen from Rs. 47.00 in 1964-65 to Rs. 78.00 in 1968-69.

4.52. The reduction in the procurement of non-durable sleepers is attributable directly to the policy of the Ministry of Railways (Railway Board) to reduce the future use of the treated sleepers (both broad gauge and metre gauge) in track. While the wooden sleepers of durable type are considered as satisfying all the technical requirements of sleepers and as most suitable for the track, the non-durable sleepers have been considered by the Railway Board as very unsatisfactory and as being the most expensive in view of its short service life in track. Accordingly, the allotment of these types of sleepers to the Railways have been reduced from year to year i.e. 29.06 lakhs Nos. in 1964-65 to 15 lakh Nos. in 1970-71.

4.53. In principle, the non-durable sleeper possesses all the mechanical properties of the durable varieties of wood except that unlike the naturally decay-resistant varieties, they are liable to decay due to fungal and insect attack. But the decay could be considerably

*See Appendix II.

delayed and their service life in track prolonged by resorting to proper preservative treatment with creosote oil mixed with fuel oil. According to data published earlier by the Railway Board, some of the non-durable species with a life period of 2 to 7 years when untreated, were found to give after treatment, a service life of 13 to 20 years. Investigations carried out at the Forest Research Institute in Dehra Dun in collaboration with the Railways over a period of years have also similarly established the results of treatment.

4.54. In view of this the poor performance of treated sleepers on the Indian Railways in recent years must by and large be attributed to unsatisfactory treatment techniques and maintenance practices in the Railways in India:

(i) Ineffective treatment: The Railway Board prepared and issued in 1964, a manual for the creosoting of sleepers, in view of the absence of such a set of instructions till then. There has been improper treatment due to shortage in indigenous supply of creosote oil. Although, there was adequate indigenous potential, the present arrangement for supply has not ensured a regular dependable supply every year, the actual supplies fluctuating year to year from 4,800 tonnes in one year to 7,400 tonnes in other against an annual requirement of 8,400 tonnes. Further, pressure creosoting was hastily done without adequate air seasoning to the required level of moisture content; inadequate provision of equipment in the sleeper treatment plants such as steam traps, condensors and controlling instruments etc., also contributed to poor treatment. The average absorption of the creosote mixture by the treated sleepers at the treatment plants especially between 1961-62 and 1964-65 was between 1.8 and 3.5 lbs. against the required quantity of 7 lbs. per cft.

(ii) The treated sleepers were previously laid in certain section without bearing plates though instructions regarding the use of bearing plates on treated sleepers existed from the beginning.

(iii) Assessment of service life of track sleepers have been based upon the conditions of individual sleepers, whereas in view of the individual peculiarities of a natural material like wood, assessment of life should be based upon analysis of life performance of groups of such sleepers. As a corollary, replacement of wooden sleepers should generally be undertaken on a casual renewal basis. But the practice of casual renewals with new wooden sleepers have been practically stopped except with second hand sleepers.

(iv) The practice of beater packing has been injurious to the treated surface of such sleepers and better maintenance practices like measured shovel packing have not been introduced generally. It may be mentioned in this connection that such improved practices are unavoidable for the maintenance of tracks laid with the concrete sleepers also.

4.55. The present policy of reduced intake of raw sleepers and consequent under-utilisation of treatment plants, besides contributing to higher unit cost of treatment as referred to above has also other financial implications:

(i) Lower initial cost as would be seen from comparative cost with fittings (including cost of treatment in the case of non-durable wood) of the various types of sleepers. (Annexure* II(b) of this Report.)

(ii) Annual cost of Service: On the assumption that a properly treated non-durable sleeper gives nearly as much service life as a durable sleeper, the average annual cost of service of the various types of sleepers per track kilometre of 1,600 sleepers compare as in Annexure† II(c) of this Report.

4.56. The Ministry of Railways (Railway Board) explained (August, 1970) that while owing to the need to complete plan programmes, a large number of non-durable varieties of sleepers had to be procured and treated with the available creosote, their experience is that such sleepers have very short service life and that earlier data must be considered outmoded. It may be mentioned in this connection that in a recent meeting of Sub-Committee of the Central Board of Forestry (August 1970) in which, the Ministry of Railways were also represented, the assessment of very short service life of the treated sleepers made by the Ministry of Railways (Railway Board) has been disputed by the principal State Forest Officers and the Forest Research Institute.

4.57. The Ministry further stated (August, 1970/January 1971) that undependable and erratic supplies of creosote made the sustained utilisation of treatment plants as well as the planning and execution of treatment of sleepers most difficult. Economies in the operation of the treatment plants by reduction of staff, reduction in shifts, etc. are stated to be under investigation. The Board further stated that on the basis of annual cost of service the non-durable sleepers are very much more expensive than both the C.S.T. 9 and Steel.

4.58. However, as brought out above, given proper treatment and satisfactory maintenance on the track, the non-durable sleepers can be made to serve as well as the durable varieties which command the highest priority in the Ministry's policy for procurement of sleepers. The difference in annual cost of service as between wooden durable and non-durable treated is not significantly large. The non-durable sleepers are ranked even lower than cast iron sleepers in the Ministry's order of preference for sleepers. At the same time, it is found by the Ministry that the cast iron sleepers are unsuitable for the trunk routes and main lines with the present day speed for broad gauge and metre gauge. With increase in axle load and traffic densities, wear takes place quicker at the rail seat

*See Appendix III.

†See Appendix IV.

and at rail joints wooden sleepers have to be used to save the rail ends from being damaged. It is also to be noted that the lower annual cost of service of durable sleepers and C.L. sleepers is to a significant extent, due to the high scrap value commanded by them under existing market conditions.

[Paragraph 41, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

4.59. The Committee were informed that Sleeper Treatment Plants are located at four places as follows:—

Dhilwan (Northern Railway).

Clutterbuckganj (North Eastern Railway).

Naharkatiya (Northeast Frontier Railway).

Olavakkot (Southern Railway).

The plant at Dhilwan was installed in 1923 by the former N.W. Railway. The plant at Naharkatiya was installed in 1928 by the erstwhile A-B Railway. A new plant was also installed in Naharkatiya by the N.F. Railway in 1968. As regards Olavakkot, the plant was installed in 1957 and the one at Clutterbuckganj was installed in 1955.

4.60. The Railway Board stated that the actual installed annual capacity of the plants is not readily available as they were all installed years ago. However, it is presumed that on the basis of the interior volume of the cylinders at the four plants and taking some ad hoc figures for time taken for treatment the following figures appear to have been arrived at on single shift basis:—

	Estimate	
	As per F.R.I.	*As per wooden Sleepers Railway Board*
	Cfts.	Cft. Cum.
Dhilwan	9,56,250	10,93,750 30,975
Naharkatiya	5,06,250	5,00,000 14,160
Olavakkot	7,40,625	6,25,000 17,700
Clutterbuckgunj	21,37,500	21,87,500 61,950

Statement showing year-wise planned and actual capacities of the four Railway Sleeper Treatment Plants

Year	Dhilwan (N. Rly.) Cum.	Clutterbuck-ganj (N.E. Rly.) Cum.	Olavakkot (S. Rly.) Cum.	Naharkatiya (N.F. Rly.) Cum.
1964-65—				
Planned	50,396	67,960	35,673	24,063
Actual	40,029	64,222	30,747	23,728
Percentage Utilization	80	94·49	86·19	98
1965-66—				
Planned	46,242	67,960	35,673	23,783
Actual	39,427	48,352	28,373	24,632
Percentage Utilization	85·25	71·15	79·54	103·6

Year	Dhilwan (N. Rly.) Cum.	Clutterbuck-ganj (N.E.Rly) Cum.	Olavakkot (S. Rly.) Cum.	Naharkatiya (N.F.Rly.) Cum.
1966-67—				
Planned	33,921	67,960	38,674	23,783
Actual	30,597	34,413	25,954	23,783
Percentage Utilization ..	90·47	50·64	67·11	100
1967-68—				
Planned	36,811	67,960	38,674	23,783
Actual	33,360	32,600	11,928	24,943
Percentage Utilization	90·65	47·97	30·84	104·88
1968-69—				
Planned	24,751	67,960	38,674	29,733
Actual	21,986	29,067	20,852	26,306
Percentage Utilization	88·83	42·77	53·92	88·47
1969-70—				
Planned	24,751	67,960	25,222	33,751
Actual	23,872	27,933	22,007	37,854
Percentage Utilization ..	96·43	41·11	87·26	111·75

4.61. From the information made available to the Committee it is seen that the combined capacity of the four plants previously fixed at 2 lakh cu. metres was revised to 1.52 lakh cu. metres in 1971. During evidence the Committee enquired how the figure of installed capacity was revised. The Chairman, Railway Board deposed: "This 2 lakh was fixed in relation to the absorption of creosote and the time required for each operation according to the practice followed earlier. Later, we changed the proportion of creosote and fuel oil, and also the time of the operation has been increased so that the absorption has been stepped from 5 pounds to 7 pounds. This required more time and to that extent the capacity came down."

He added: "Installed capacity depends upon the number of operations that can be done in one shift. If the time of operation is increased due to necessity of having more creosote absorbed, the capacity will come down."

4.62. As regards the revised assessment of the capacity, the witness stated: "The assessment was in relation to the practice that was followed originally to the practice that was followed originally at Dhilwan (N.W. Railway) and subsequently at Naharkatiya (A.B. Railway) and on that basis the installed capacity was laid down. After going into the practice followed elsewhere the absorption rate and altering the proportion of the mixture it was found that each operation required more time; number of operations per shift came down and that is why the installed capacity has been shown as having come down."

4.63. When the Committee draw attention to the reply given by the Railway Board to the effect that the actual installed annual capacity of the plants was not readily available, the Chairman, Railway Board replied: "In the earlier years, the sleeper plants were operated by the railways and there was hardly any central direction particularly in the technical field at the Board level. It is only for the last 8 years that we had a proper timber officer appointed. He went into the various things the techniques and a standard manual was evolved. On that basis, we have laid down certain procedures which are being enforced today." He continued: "You wanted to know the installed and that figure is 2 lakhs. This capacity can be considered as the figure accepted at that time. But subsequent to that, we have had more education in this matter, we have studied this matter in greater depth and we found that the practical capacity can be considered to be only about one and a half lakhs."

4.64. In reply to another question, the witness stated: "Sir, as far as the original capacity was concerned, it was fixed on the interior volume of the shell, the volume of timber that could be put in each charge, the period of each charge under pressure and the number of such operations that could be done in one year worked out on the basis of reasonable experience."

4.65. During the course of evidence, the Committee were informed that in 1970-71 when the capacity of the plants was revised from 2 to 15 lakhs, it was done because of a change in the period of the treatment of the sleepers. The period of the treatment was enhanced "to permit a greater absorption of creosote mixture." As to why this change was brought about was explained by the Chairman, Railway Board as under:

"It was considered after a study that the life of the treated timber would improve by having greater absorption of the creosote mixture and also by changing the proportion of creosote and fuel oil in the mixture."

4.66. A representative of the Forest Research Institute, Dehra Dun, however, informed the Committee that there was a prescribed limit to which the sleepers should be treated with the creosote mixture and it was not necessary to give different does for different kinds of timber. In this connection he also added: "We have got a code of practice for preservation of timber and we have given only one absorption for all these and not two different absorptions."

4.67. Referring to the statement (in para 4.60 above) showing the planned and actual capacities of the four plants, the Committee pointed out that the actual utilisation has consistently come down as shown below:

1964-65	..	1·58 Lakh cum.
1965-66	..	1·4 ,,
1966-67	..	1·15 ,,
1967-68	..	1·02 ,,
1968-69	..	0·98 ,,
1969-70	..	1·12 ,,

4.68. In reply to a question, the Chairman, Railway Board stated that due to short life of the treated non-durable sleepers as also their unsatisfactory performance, the Railway Board have been as a matter of deliberate policy reducing the use of treated timber for sleepers. At page 4 of 'Sleeper for B.G. Track—Policy and Programme for procurement' the Railway Board have stated:

"Taking the various aspects into consideration, the order of preference for sleepers would be as indicated below:—

(i) Wooden sleepers—durable types, with elastic fastenings.

(ii) Concrete sleepers.

(iii) Steel sleepers, with elastic fastenings.

(iv) Cast iron sleepers.

(v) Wooden sleepers—non-durable types."

4.69. The Committee enquired whether views of all the Zonal Railways were obtained prior to deciding on the order of preference for sleepers relegating the non-durable wooden sleepers to the last and whether the views of independent experts at the All India level were obtained in this connection. In a written note, the Railway Board have stated: "No specific views of Zonal Railways were obtained prior to deciding on the order of preference of sleepers but the experience of the Railways regarding the life and maintainability of different types of sleepers were available with the Board.

4.70. As no experts at the all India level on track matters are available outside the Railways, the question did not arised. No specific field trials on the same route with different types of sleepers were conducted and the decision was taken with the overall experience available with the Railway."

4.71. Giving reasons for the lesser utilisation of the plants, the Chairman, Railway Board stated during evidence: "The present practice that is followed for maintenance of track, packing the sleepers with beaters and using non-elastic fastenings have given us a comparatively poor life for these treated sleepers. We have to take account of the fact that we are having heavier traffic and diesel locomotives running over most of the sections. The safety factor and improvement of line capacity have to be kept in view. In view of this, we have decided to reduce the intake of non-durable species selectively to a small number of species and put in more and more elastic fastenings and improve our track which will eliminate the possibility of physical damage to sleepers which at present takes place due to beater packing. We may thereafter be able to improve the intake of the non-durable sleepers for treatment." He added: "This life of the hardwood sleeper is 13-14 years, of the non-durable type about 11-12 years. This is according to our normal concept. The figures given by the Chief Engineers on various Railways show that the life they have obtained is not even this much for treated sleepers."

4.72. It was pointed out that in foreign countries the non-durable sleepers after treatment gave good service for a long time. Asked as to the reasons for this, the witness replied: "Conditions

in foreign countries are very different. The species used, climate fittings, methods of maintenance of track etc., are very different. So it would not be correct to compare the two. Treated sleepers give them 20—25 years; hardwood sleepers last 30 years. We get in our country less than half of that."

4.73. As regards the service life of the durable and the non-durable timber sleeper, the representative of the Forest Research Institute, Dehra Dun informed the Committee as under:

"Timber is of two types. One is the durable type and the other is the non-durable type. Some of the non-durable types have the requisite strength and not durability. The only reason for the lack of durability is, that they are attacked by fungus and termite. This, we are setting right after giving them preservative treatment in which we are incorporating some toxic chemicals which reduce the attack. Non-durable timber, after preservative treatment, should give as much service as durable timber without preservative treatment.

4.74. The witness further added: "These railway sleepers, after treatment, do not decay or are not subject to insect attack. They are rejected mostly on the basis of mechanical defects. We are conducting some experiments on the railways for the last several years and we find that out of 10 to 25 per cent sleepers rejected, none of them have been rejected on account of attack; it may be on account of fire or mechanical defects."

4.75. In reply to a question, the Chairman, Railway Board stated in evidence: "The service life of the sleepers laid on the field is observed by the people who are in charge of maintenance of the permanent way at various levels, starting from the Assistant Permanent Way Inspector right up to the Chief Engineer and when we lay any species in the field, whether durable or non-durable, we get from them their comments in regard to the service life of it through special letters as well as through their proposals for re-sleeping which are brought up annualy for approval to the Board. It was on the basis of a number of discussion and conferences held with the Chief Engineers that it was decided that certain species like fir, mango etc., must not be accepted. These timbers have got less of mechanical strength, and they were not able to hold the gauge as well as we would like it to be held on the main line where heavy traffic and high speed have to be faced. The number of sleeper being reduced, naturally the number of non-durable species available for treatment also became reduced. I do not say that we will not be able to take in more non-durable species gradually once our method of maintenance has been perfected so that beater packing is eliminated and we put flexible fastenings which will reduce the pulling effect in the fastenings from the sleepers which tends to make it loose. Once it becomes loose, we cannot have another hole made in it in the case of non-durable species for main line use, whereas in the case of durable species we can make fresh holes at least three times before we take them out to the loop line or a yard."

4.76. In regard to the policy of procurement of wooden sleepers, the Chairman, Railway Board stated: "We have specific policy for procurement of wooden sleepers. We have to consider what our experience is with regard to these sleepers because ultimately the responsibility for controlling safety is that of the railways. We cannot involve any other expert body for the purpose of decision-making, though they can be consulted". He also added: "These non-durable species are not suitable for trunk routes where welded rails are used. The performance of these sleepers on such track has not been good and we have decided that these may be utilised only in areas where there is not much of a high speed and where heavy traffic is not to be faced, where long-welded rails are not used."

4.77. So far as the use of durable sleepers was concerned, the witness stated: "Sir, as far as durable species are concerned, we would be happy to take them.

I would submit, Sir, that in America, the sleeper that is used is much thicker, the number of sleepers is much more and they are using heavier track structure and all their wagons are bogie ones and there is more stability and less possibility of derailment. Our conditions are not the same but due to the inherent advantage of durable sleepers, we would be very happy to take them if they are available."

4.78. The Committee desired to know whether before adopting the sleeper procurement policy the shortage of durable species of sleepers was considered. In reply, the Chairman, Railway Board stated: "Definitely, Sir. The shortage of durable species in this country is a long problem. Before the last war, it was not so acute, because there was not much of a demand in the non-railway spheres, but since then there has been a lot of development and the demand in the non-railway spheres has gone up and we are not able to get the same in sufficient quantity." He continued: "We took into consideration the cost of service for each type of sleeper and we tried to take what is more economical. Where the safety is likely to be endangered, we cannot go for that even if it is a little cheaper."

4.79. The Committee called for information as to how the treated wooden sleepers were considered as the most uneconomical and the costliest. In this connection, the Railway Board have stated: "The annual cost of service of different types of sleepers (excluding cost of maintenance) appearing in the annexure II of the Audit Para are as follows:—

	BG	MG
	Rs.	Rs.
(i) Wooden non-durable	7,992	4,374
(ii) Wooden durable	7,584	3,718
(iii) CST-9	6,966	3,920
(iv) Steel	7,786	..
(v) Concrete—		
monoblock	10,335	
2 block	11,061	

In assessing that wooden non-durable sleepers are least economical, comparison of items (i) to (iv) only has been taken into account as these are fitted with conventional fastenings. Figures for concrete sleepers are not taken into account as these are fitted with elastic fastenings which provide improved track structure and bestow further economic advantages on account of lesser maintenance of track, rolling stock and reduction in traction cost (fuel consumption). The latest cost of these four types of sleepers have also been given. These are:—

	BG Rs.	MG Rs.
(i) Wooden non-durable	9,219	5,622
(ii) Wooden durable	6,494	3,504
(iii) CST-9	8,573	5,361
(iv) Steel	8,535	..

It would again be seen that the wooden non-durable sleepers is relatively least economical as per this comparison also."

4.80. During evidence the Committee drew attention to the fact that in the report entitled "Pressure Treatment of Wooden Sleepers with creosote" by Mr. M. D. Chaturvedi, Timber Adviser, Railway Board, which was published in 1958, it was stated that the minimum life of untreated sleeper was 14 years and after treatment it goes to 20 years. Similarly in another report on 'Pressure Treatment of Wooden Sleepers with creosote' published by the Railway Board with a forward by the then Chairman, Railway Board, it was argued that even in Europe and U.S.A., though they have got the facilities to go in for other sophisticated sleepers, wooden sleepers were still being used because of their many sided advantages. Giving his reaction to these reports, the Chairman, Railway Board deposed during evidence: "These two Reports were written on the basis of experience and evidence before 1964. At that time, we did not run the traffic to the extent that we are doing today. We did not have the diesel locomotives nor did we have the electrification. And our trunk routes were not receiving the punishment on the track to the extent they are receiving today. As far as the American practice is concerned, there is plenty of timber available there and because timber sleeper is cheaper than concrete, they wanted to have reduced investment. And the American Railways have not gone in for concrete sleepers at all. But Europe has gone in for concrete in a very big way despite the fact that timber is available in plenty. There are advantages which the concrete sleepers have over wood in giving a stable track. Where the concrete sleepers are used, and once they get the bed, they are not easily disturbed. They give stability which is very good for high speeds and heavy loads. And we can get good service out of wood, if they are of durable type. But if it is a non-durable one, under faster traffic and high speeds, it is not considered desirable. This has been done on the basis of experience over the past 5 and 6 years. And all the Chief Engineers were unanimous in regard to this. They said that it would not be safe to have these on main lines beyond a few years. For the first five years, it may be good but after that, the maintenance will be very difficult."

4.81. In reply to another question, the witness remarked: "We have taken into consideration the fact that some of the opinions that are given outside are influenced by the opinion of the State Forest Departments and the State Forest Departments have always been pressing us to take more non-durable sleepers. Actually, they have been making a condition that for every durable piece supplied to us, we must take some non-durable sleepers proportionately. Since the States were the people who had the expertise and the opinion that would be given, would be taking into consideration the opinion and needs of the suppliers rather than the needs of the users, we had to be a little cautious in this respect. I can give you examples in this connection. There are metallurgists in the steel plants. We sometimes have difference of opinion with them; we are not able to agree with them in many matters. Sometimes they ask us for relaxation and they give some explanations for this, but we have to be little cautious because the opinion given by them is influenced by the fact that they are on the side of the suppliers."

4.82. As regards the use of wooden sleepers on the Indian Railways, the Inspector General of Forests informed the Committee as under: "In 1962, the Deputy Railway Minister, Mr. Shahnawaz Khan, himself asked us to make a special effort to produce railway sleepers and he said that we must make use of the wooden sleepers for this and we started a Sub-Committee for fixation of prices against the wishes of all those States and we forced them to come an agreeable price for all those sleepers in the country. In fact, our Management plan has also been based for the production of railway sleepers because we have been supplying lakh of sleepers to the railways. The railways were prepared to take any number of sleepers at that time and we held meetings of sub-committee from time to time. But later on, the railways changed their mind about non-durable sleepers. For the non-durable sleepers they say that the life is very much less; as read out by the Chairman from the publication itself, the life has already been given after some experience and the data show round about 15 to 16 years in these cases too. So, the position is that the railways still want durable sleepers because of the fact that they do not need any treatment. But I submit to the Committee that durable sleeper timbers are very few in the country. If we do not take non-durable sleepers, we shall certainly be reducing the number of sleepers required for our use because sal, and some other varieties, for example, are some of the durable timbers in which the quantities are limited, and they cannot be completely supplied all the time. So, I may submit that non-durable timbers would have to play an important role and that is where the preservative treatment comes into play. It has been the policy of the department to bring many of the secondary species into use for various purposes not only for sleepers but even for building construction, by giving preservative treatment, so that we can increase their life twice, thrice or even ten times as the case may be, dependent on the doses of the preservatives that are used.

We have also been in collaboration with the railways since 1911 by conducting a large number of tests. We have prepared a list of the various tests on the species. If the Committee would like, I can

supply the list, but we have supplied it already as to what these results are for the various species. We are prepared to work again and we want to co-operate with the railways in finding out more and more uses of the non-durable timbers, so that we can have a better utilisation and greater up take of the timbers which are not being used at the moment.

I would like to say also that as regards Dhilwan plant, which has been discussed very much, that plant has been treating coniferous timber which is got from the Himalayas. I am subject to correction here. Coniferous timber has been mostly treated in the Dhilwan plant as for example, chir, spruce, etc. Deodar does not need treatment because deodar oil has got very good properties, and so is kail. We have been supplying to the railways in the past chir, fir, spruce and kail sleepers. But last time, they said they would not like to take fir and spruce sleepers although according to our experts, with a little modification and penetration, even these could be improved for the purpose of sleepers, and preservative treatment could give them durability and it has been worked out in the past. That has put some of the departments in a tight corner, because suddenly a big demand is going out of the market. We try to negotiate with the railways in order that they could take these sleepers. If some treatment can be given and some improvement in the incision methods is made, more of these sleepers could be taken by them."

4.83. The Committee desired to know since when were the wooden sleepers being treated and laid in tract and how it was ensured that sleepers were properly treated. In a written note, the Railway Board have stated:

"In India, the first commercial scale creosoting plant was established in 1923 at Dhilwan on the erstwhile N.W. Railway. It may therefore be surmised that treated sleepers are being used from about that time. Before comprehensive instructions as laid down in the 'Manual of Instructions for the Practice of Creosoting' were issued in 1964, the treatment at the Railway plants was mainly guided on the basis of instructions on the subject as contained in Chapter 8 of the Railway Board's publication 'Wooden Sleepers'. Prior to this treatment appears to have been given under instructions of local authority."

4.84. Giving details of the treatment of sleepers, the Chairman, Railway Board stated in evidence: "We require creosote and fuel oil for making up the mixture required for treatment. Previously, we were using 40% creosote and 60% fuel oil but a few years ago we changed over to 50% creosote and 50% fuel oil. The method of treatment now adopted, which takes in about 7 lbs. of the mixture, is considered quite satisfactory in the light of the knowledge we have got and the experience we have gained."

4.85. The Committee desired to know the steps taken by the Railway to ensure supply of creosote oil at the time of commissioning of the treatment plants and thereafter. The Railway Board have

furnished the following note on the subject:

"Information on steps taken at the time of commissioning of Sleeper Treatment Plants to ensure the necessary supplies of creosote oil for the plants is not readily available, as the plants were all commissioned a long time back since 1923 and 1928. The supply of creosote oil is an item which has to be tapped through the DGS&D. In the past i.e. before indigenous supplies were made available, it appears that even imports were undertaken by the Indian Stores Department/DGS & D. With the Steel Plants of H.S.L. going into production, it appears that there was no doubt that the crude tar coming out of the coke ovens as a by-product would release abundant supplies of creosote for utilisation as a wood preservative, at reasonable price. The Ministry of Railways made references to the DGS & D and the Ministry of Steel in 1967 since the supplies gradually started coming down from the neighbourhood of 7,000 tonnes to about 4,000 to 5,000 tonnes. During 1963-64, efforts were made to ensure a supply of 700 tonnes per month. It was anticipated that indigenous production of creosote would be about 10,200 tonnes annually, of which at least 8,400 tonnes would be earmarked to the Railways, the balance being allotted to the Defence and other small indentors. The three major organizations producing creosote were actually expected to produce as follows:—

Source	Supplies per month
M/s H.S.L.	500 tonnes
M/s. Coal Tar Distillers	200 tonnes
M/s. Durgapur Projects	150 tonnes
	850 tonnes per month or 10200 tonnes annually.

Of the above, 700 tonnes per month at least were to be earmarked for the Railways. The details of requirements of creosote on the basis of planned capacity and actual supplies of creosote oil year by year from 1964-65 to 1969-70 are furnished as follows:—

Year	Planned capacity	Creosote required	Creosote actually supplied
	lakh cft.	Tonnes	Tonnes
1964-65	62·90	10,000	7,386
1965-66	59·33	9,440	7,118
1966-67	58·04	9,234	4,897
1967-68	59·06	9,396	5,008
1968-69	56·90	9,053	6,214
1969-70	53·65	8,535	5,615

4.86. To a question whether the Railway Board were satisfied with the technique of maintenance the witness replied: "As far as the methods of maintenance are concerned we have been following the methods of maintenance which the Indian Railways have been following ever since they were laid, for the past 120 years. This

is heavily labour oriented and it involves working in the open—sun, rain and so on—and digging deep to give a firm basis for the sleepers. This does not become satisfactory under new conditions when we have greater loads and frequent services, and short interval between two trains in the section, which does not give adequate working time. We are bringing a change over to new techniques which do not require beater packing. For example, the measure shovel packing is one system which does not require beater packing to be done. We are extending this gradually in step with the expanding traffic. But we have to take into consideration its effect on our labour also. There may be a reduction in employment potential by our extending this too fast. Our programme is to do this for wooden sleepers all over the country gradually and also to use elastic fastenings which will not loosen the spike in the sleeper—as it is happening at present."

4.87. Asked whether there was no scope for improvement in the treatment method, the Chairman, Railway Board replied: "The treatment method we have adopted is the best known to us today and there is always scope for improvement and we are willing to change. (Now we have changed from old to newer methods and we may change over to still newer ones."

4.88. The Committee enquired if there was an improvement in the method of treatment, will the Railway Board be willing to use more non-durable sleepers. In this connection, the Chairman, Railway Board stated: "We shall definitely try to observe the performance of the non-durable sleepers under these conditions and if they give us a longer life, we will consider using them because, after all, they are produced in our own country."

4.89. Later on the Committee were informed that the Railway Board have set up a Committee under the chairmanship of Director Standards (Civil) R.D.S.O. to go into the entire question. The terms of reference of the Committee *inter alia* provide:

"The Committee will go through the entire policy regarding use of treated wooden sleepers; examine the use of different species of timber as wooden sleepers; considering their strength properties, durability, seasoning behaviour, treatability and such other technical characteristics under present conditions obtaining on the Indian Railways, and suggest any improvements in the treatment technique as may be considered necessary.

4.90. The Committee will also examine the treatment capacity available and fix up the single and double shift capacity of the individual railway creosoting plants for the various species chosen as acceptable, indicating the associated processes of treatment and schedules to be adopted."

4.91. **The Committee note that as a matter of deliberate policy the Railways have been gradually reducing the use of non-durable wooden sleepers. This has resulted in a lesser off take of raw sleepers by the Railways from the available sources such as state forests and consequently the four sleeper treatment plants of the Railways established at a cost of Rs. 88.49 lakhs are not being utilised to the maximum extent possible. Because of under-utilisation of the plants the cost of treatment of sleepers per cubic metre has risen from Rs. 47.00 in 1964-65 to Rs. 78.00 in 1968-69.**

4.92. According to the Railway Board whereas the wooden sleepers of durable type are considered as satisfying all the technical requirements of sleepers and as most suitable for the track, the non-durable sleepers do not give satisfactory service and are comparatively expensive because of their short life. The assessment of short service life of treated sleepers made by the Railway Board has been disputed by the principal State Forest Officers and the Forest Research Institute.

4.93. During evidence the Committee were apprised that because of better maintenance technique followed and differences in conditions in foreign countries the non-durable sleepers after treatment gave good service for long time. It was also brought to the notice of the Committee by the Inspector General of Forests, Government of India that because of the policy of Railway Board the State Forests were facing a shrinkage in the demand of non-durable wooden sleepers.

4.94. In view of the above the Committee feel that there is need for reappraisal of the Railways' policy in regard to use of non-durable wooden sleepers. The Committee are informed that the Railway Board have set up an expert Committee to go into the entire question. The Committee hope that a suitable policy will be evolved as a result of the Expert Committee's deliberations. They would like to be apprised of the decisions taken in due course.

CHAPTER V

OTHER TOPICS

Metropolitan Transport Projects—Calcutta and Bombay

Audit Paragraph

5.1. During the year under report the Railways have undertaken the following three surveys in connection with the improvement of metropolitan transport and to provide mass rapid transit system to the computers of Calcutta and Bombay cities at an estimated cost of Rs. 20.00 lakhs:—

Particulars of Surveys	(Amount in lakhs)
1. Feasibility and economic studies for a third terminal station at Ballard Estate, Bombay City for the Metropolitan Transport, Central Railway	4·00
2. Final location survey and preparation of project report and detailed estimates for the suburban dispersal line from Dum Dum to Princep Ghat for Motropolitan Transport, Eastern Railway	15·00
3. Techno-economic feasibility for mass rapid transit system including underground Railways in Calcutta City for Metropolitan Transport, Eastern Railway ..	1·00
TOTAL ..	20·00

5.2. It was stated in the "Works Machinery and Rolling Stock Programme for 1969-70 (Part I-Summary)" presented to Parliament with the Budget for 1969-70 that Railways had most of the technical know-how and expertise required for the investigation, preparation of project reports and execution of such projects and consequently the feasibility studies in this connection as well as the execution of such projects but that the funds required for these projects had to be made available to them outside the normal capital allocation to the Railways and the Railway finances did not have to bear these costs. The Railway Board have subsequently explained to Audit that this had meant so far only that a specific allotment of provision for the Fourth Plan expenditure was made to the Railways by the Planning Commission in respect of such expenditure and that the question of dividend liability and other matters regarding Railways' financial liability for the construction and operation of Metropolitan Transport Service was still under discussion with the Planning Commission and the Ministry of Finance. It may also be mentioned that in departure from the normal procedure as prescribed in the codes according to which expenditure on surveys is treated as 'Miscellaneous Expenditure' (thereby affecting also the surplus or deficit position of Railways' finances in that year) and is capitalised only if the survey is followed by actual execution of the project, the expenditure on Metropolitan Transport Project survey has been directly debited to Capital.

[Paragraph 10, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

5.3. The Committee enquired why a deviation had been made from the normal procedure by debiting the expenditure on surveys in connection with the Metropolitan Transport Projects to Capital Account instead of treating it as 'Miscellaneous Expenditure'. The Financial Commissioner for Railways stated in reply: "The question of the Railways undertaking projects in respect of Metropolitan Transport was under discussion by the Planning Commission. It was argued by the Railways that the metropolitan transport was a losing proposition in most cities and they should be subsidised by either the Municipality or the State Government or the Federation or by a combination of all these three. The Planning Commission and this Ministry were not able to come to a decision straightaway. They said when you take up the projects and the Project Report is available, we will decide as to what should be the financial arrangements. So it was agreed that we should maintain separate accounts. So we have kept all the accounts separate. We felt that accounts for the survey work associated with the projects should also be kept separately. The question of financing it is also before the Railway Convention Committee. They will probably be considering this matter also."

5.4. In reply to a question, the Financial Commissioner for Railways clarified that the Railways were functioning only as agents in so far as the Metropolitan Transport Project was concerned and the expenditure incurred in connection therewith was not being debited to Railways' Capital Account but was being kept separately. Asked whether the expenditure was being debited to a National Railway Capital, the witness stated: "Yes, we have calculated dividend on this amount. As in 1970-71 we spent Rs. 58 lakhs and in the adjustment of dividend we have not paid dividend on this 58 lakhs."

5.5. As regards the present position of the Metropolitan Transport Project, the Financial Commissioner for Railways explained: "The present position is that in April 1971 the Planning Commission decided that the suburban dispersal line for Calcutta should be dropped and that the officer should submit the project report by October 1971. We have received the project report and are examining it. We are also to get some Russian experts to give technical assistance. Unfortunately, there has been delay. They are expected in the last in the 1st week of November and after they visit the cities of Madras, Bombay and Delhi they will start a study. They have appointed an officer and they are making detailed studies."

5.6. He further added: "Actually, our own people make all these detailed studies and the Russain experts come only for particular fields. They agreed with our experts that the underground line would be the most feasible solution because the suburban dispersal line was satisfying only a small percentage of the inter-city traffic. They have accepted all our reasons and the Planning Commission has also accepted them and have dropped the suburban dispersal line project. They have asked us to give a detailed project report for this project and we have to examine all these things, including financial implications, and submit it to the Planning Commission."

5.7. In a written note furnished at the instance of the Committee, the Railway Board have stated: "A Soviet Team of 5 Technical Consultants assisted Metropolitan Transport Project (Railways) Organisation, Calcutta from the middle of November 1970 to middle of January 1971 in conducting surveys and studies of the Metropolitan Railway Transport Project there. The Team submitted their Report by the middle of January 1971 to the Ministry of Railways. They strongly recommended construction of an underground Railway of 16.5 kms length from Dum-Dum in the north to Tollygunge in the south at an estimated cost of Rs. 120 crores. The Team did not favour the construction of Suburban Dispersal Line ..... The Team opined that underground system would take 5 to 7 years for construction against 5 years required for Suburban Dispersal Line (SDL) at an estimated cost of Rs. 44 crores.

5.8. The above recommendations of the Soviet Team were considered first by the Railway Board and then amongst the representatives of the Planning Commission, Ministry of Railways and Ministry of Finance in a meeting held on 19-4-71 when the following conclusions were reached:—

(a) As proposed by the Railway Board, the proposal for SDL may be dropped.

(b) The Railways will commence construction of the Dum-Dum-Tollygunge rapid transit system after a Project Report had been prepared giving the necessary data regarding subsoil conditions and economics of the Project. The Railways agreed to submit the Report by October, 1971.

(c) A view on the question whether and to what extent it was necessary for Government to give subsidy on the system would be considered after the Project Report had been prepared and financial implications and economics of the proposals have been analysed.

5.9. Consequent to the above decisions, the M.T.P. (Railways) compiled a Project Report and submitted the same to the Planning Commission in January 1972 after giving careful consideration and also after taking advantage of the benefit of advice of the Second Team of 7 Soviet Consultants who remained here from middle of November 1971 to end of January 1972. The Report had established the technical feasibility of the proposed underground Railway at an estimated cost of Rs. 140.00 crores with a foreign exchange element of Rs. 23.7 crores. It was also established that it would take about 7 years for completion and the Project would not be financially viable. The extent of subsidy required would depend upon fixation of fare structure. With 20 paise and 30 paise fare/journey subsidy would be Rs. 6.8 crores and Rs. 0.98 crores respectively.

5.10. The Project Report was considered in an inter-Ministerial meeting amongst the representatives of the Ministry of Railways, Planning Commission and the Ministry of Finance and Ministry of Shipping and Transport held in January 1972 when the Project Report was accepted and it was decided to approach the Cabinet for final approval of this Project. Case is being processed for approval of the Cabinet after which the Government's decision will be known."

5.11. The Committee note that during 1970-71 the Railways spent Rs. 58 lakhs on various projects connected with metropolitan transport. The Committee desire that a decision should soon be taken in consultation with Audit, if necessary, as to how the expenditure in connection with the Metropolitan Transport Projects is to be shown in the final accounts of the Railways concerned.

5.12. The Committee attach great importance to development of adequate transport facilities in metropolitan areas and would like Government to give highest priority to drawing up and implementing integrated plans for meeting the transport requirements of common man in these densely populated areas.

Western Railway—Loss of revenue owing to unnecessary continuance of special concessional rate allowed to a firm

Audit Paragraph

5.13. A cement manufacturing company had been allowed a special concessional station to station rate since February, 1954, for the transport of limestone from Rawanjna Dungar to Sawai Madhopur. The rate had been revised from time to time, consistent with changes in freight rates in general, but continued to be below the normal tariff rates. In May, 1965, the Western Railway Administration recommended to the Ministry of Railways (Railway Board) that the then existing rate of Rs. 4.50 per tonne should be reduced further to Rs. 4.30 per tonne. The main considerations for this recommendation were (1) the alternative modes of transport such as ropeway which the firm was considering, (2) the anticipated increase in earnings likely to be realised from the increased lime-stone traffic consequent on the firm's projected expansion programme, and (3) also the demand of the firm to levy freight rate on the basis of the actual distance of 16 Kms. over which traffic was being carried instead of on the basis of the minimum distance of charge of 40 Kms. The Ministry of Railways (Railway Board) did not agree to the proposed reduction and advised the Railway accordingly, in November, 1966. However, in August, 1967, Ministry of Railways (Railway Board), on a representation from the firm made in October, 1966, decided to reduce the special rate from Rs. 4.50 to Rs. 4.30 per tonne (as had been recommended by the Local Administration earlier in May, 1965) with effect from 1st September, 1967. The main considerations for this were that the levy of freight for a minimum distance of 40 Kms. as against the actual distance of 16 Kms. had operated very adversely on this particular cement factory, that the firm appeared to be seriously considering adoption of alternative means of traffic like ropeway etc., that the terminal operations performed were minimal in view of block rake movements, and that as the traffic was expected to go up from 11.5 lakh tonnes to 13 lakh tonnes per annum, a reduction of freight from Rs. 4.50 to Rs. 4.30 per tonne would keep the total freight earnings intact. On receipt of the formal orders to this effect, the Western Railway Administration wrote back to the Railway Board that the circumstances under which the Railway had earlier made the recommendation for reduction in rate, in May, 1965, had thereafter altered. The Railway Board informed the Western Railway Administration that the decision taken by the Railway Board was independent of the earlier recommendations of the Western Railway Administration and that the

manner in which the circumstances had since altered, should be made known to the Board. This was followed by protracted correspondence between the Ministry of Railways (Railway Board) and the Western Railway Administration. The Railway Administration explained *inter alia* that the projected expansion programme of the firm, which was one of the main considerations on which the reduction in freight was recommended, had not materialised at all, and that there was little likelihood of the firm resorting to ropeway, as the cost involved was prohibitive. Besides, the enquiry made from the local revenue authorities also revealed that the firm had not approached them for the acquisition of land needed for the construction of ropeway, and even if they approached now, the process of acquisition of land would take three to four years.

5.14. The Ministry of Railways (Railway Board) finally decided in June, 1970, to revise the special rate to Rs. 5.00 per tonne (the original rate of Rs. 4.50 in force, in 1965, plus supplementary charges at 9 per cent levied subsequently and merged in freight rates with effect from 1st April, 1970 yielding, Rs. 4.91 or Rs. 5.00 when rounded off). The revised rate was enforced from 1st July, 1970. The special concessional rate of Rs. 4.30 per tonne levied during the period from September, 1967 to June, 1970 but withdrawn thereafter, had resulted in loss of revenue to the extent of Rs. 5.85 lakhs.

[Paragraph 36, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

5.15. During evidence the Committee enquired about the circumstances under which the proposal made by the Western Railway in May, 1965 for the further reduction in the then existing concesisonal rate for the firm was rejected in the first instance but was agreed to later on. The representative of the Railway Board deposed: "In the case of Jaipur Udyog Ltd., in 1965, the Western Railway made a recommendation that the existing concessional rate which had been allowed to the company earlier when it was set up should be reduced further to a certain extent. The reasons were that the factory had a programme of expansion which would bring more traffic in lime stone. Further, though the actual distance was about 16 kilometres, the company was paying the freight on the minimum distance for charge of 40 kms. They were thinking of alternative modes of transport, particularly a ropeway and that would have deprived the railways of this traffic. These were the main considrations on the basis of which the Western Railway recommended reduction in the rates.

5.16. The Railway Board considered this but did not accept the recommendations. The Board felt that the concession which had already been given and allowed to the company was sufficient and that the minimum distance charged was a feature which is applicable to other short distance movement and that no further consideration may be given to the proposal.

5.17. After this rejection of the Western Railway proposal when the Company found that its representation at the lower level did not succeed, they made a representation at governmental level, and the matter was reconsidered and reviewed *de novo*. At this

stage when the representation was made to the Government, the considerations which had been put up earlier were again reviewed and the Railway Ministry felt that in order to keep this traffic, we might reconsider the matter. It was a very easy traffic for us to carry; it was moving in block rakes, no special terminal services, and facilities were needed, no shunting, marshalling required etc. In view of these considerations, the Board reconsidered the matter and decided that the concession may be allowed. The concession has varied from time to time as the normal tariff rate has gone up. The concession has been correspondingly increased so that the gap between the normal tariff and the concession was, more or less, the same. The concession has not yet been withdrawn, we have periodical review to see whether the concessions given in such cases should be withdrawn, reduced or amended and we are considering and feeling now that the stage has reached when we may consider the withdrawal of this concession and we propose to do so shortly."

5.18. It is seen from the Audit paragraph that first reference for reduction in the concessional rate allowed to the firm was made by the Western Railway in May, 1965. The final decision in the case was taken by the Railway Board in June, 1970. From the information available with the Committee, the following chronological sequence of events has been worked out:

4-5-65	..	Western Railway recommends further reduction in the concessional rate.
29-9-66	..	The Joint Director Traffic (Rates) recommends to Additional Member (Commercial) that the proposal be rejected.
20-10-66	..	The representatives of the firm met the Minister of State for Railways when Joint Director Traffic (Rates) was also present.
21-10-66	..	The Additional Member (Commercial) agrees that there is no case for quoting further concessional rate for the firm.
5-10-66	..	The Joint Director Traffic (Rates) sees Additional Member (Commercial)'s orders and signs the file without making any reference to the meeting of the representative of the firm with the Minister of State for Railways where he was also present.
4-11-66	..	Decision of Additional Member (Commercial) communicated to Western Railway.
19-6-67	..	Joint Director Traffic (Rates) records a note relating to the meeting of 20-10-66 and to some meetings in November and December, 1966 which he held with the representatives of the firm and recommends a rate of Rs. 3·65 per tonne as against the then existing rate of Rs. 4·50 per tonne. No reference to the orders of Additional Members (Commercial) dated 21-10-66 is made in the note.

30-8-67 .. The Additional Member (Commercial) who is different from the officer who issued the earlier orders on 21-10-66, agrees that the rate may be reduced to Rs. 4·50 per tonne.

31-8-67 .. Joint Director Traffic (Rates) notes the orders of Additional Member (Commercial) which are also conveyed to the Western Railway by wireless message.

16-9-67 .. Western Railway writes to the Joint Director Traffic (Rates) stating that the circumstances had altered since the issue of their earlier letter of 4-5-65.

26-9-67 .. Joint Director Traffic (Rates) writes to the Western Railway asking about the manner in which circumstances had altered.

10-7-68 .. Reply received from the Western Railway giving details of changes in the conditions.

22-5-69 .. Board replies to Western Railway asking for a definite recommendation for revision of the existing rate of Rs. 4·30 per tonne.

27-9-69 .. Western Railway replies expressing inability to make a definite recommendation. It was however suggested that Board might take a decision in the light of facts given in Western Railway letter of 10-7-68.

16-5-70 .. Joint Director Traffic (Rates) (a different incumbent from the one who wrote the letter on 26-9-67) suggests that the special rate be brought back to the level existing prior to 31-8-67.

29-5-70 .. Additional Member (Commercial) agrees to the increase to be brought into force from 1-7-1970.

14-8-70 .. Western Railway suggests withdrawal of the concessional rate

1-6-71 .. Western Railway advised of Boards decision to increase the rate to Rs. 5·50 per tonne with effect from 1-7-1971 for implementation.

5.19. From the above the following facts emerge:—

(i) On the recommendation made by the Western Railway on 4-5-65, the Railway Board's decision not to agree with the recommendation was conveyed to the Western Railway on 4-11-66 i.e, exactly after 1½ years.

(ii) The representative of the firm made a representation to the Minister of State for Railways on 20-10-66 in the presence of Joint Director Traffic (Rates). On 25-10-66, the Joint Director noted the orders of Additional member (Commercial) on his earlier recommendation that there is no case for quoting further concesisonal rate for the firm, without recording that firms' representation had met the Minister of State for Railways on 20-10-66 where he was present. The orders of the Additional Member (Commercial) were conveyed to the Western Railway on 4-11-66. In this connection the Chairman,

Railway Board stated during evidence: "The Western Railway's representation was being dealt with in a separate file and the decision was taken that their recommendation suggesting reduction of rates should not be accepted—and that date more or less tallies with 20th October, 1966."

5.20. The Committee enquired how the two references could not be linked. The representative of the Railway Board replied, "The earlier reference was finalised in one file and the later representation at the higher level was dealt with in another file. The Joint Director who was the same man dealing with both the cases first rejected it and later reviewed. When he first proposed the rejection, he made a note on it on 29-9-66. Later he met the representative after interview with the Minister on 20th October, and from the details of the conversations that took place it appears that the case was reviewed."

5.21. He added: "The officer concerned, I agree, should have linked and referred to at the time when the later representation was made and when review was undertaken. I agree with you."

5.22. Later on in a written note submitted at the instance of the Committee, the Railway Board have intimated: "In early fifties, the Railway quoted a concessional rate in favour of Digvijay Cement Co. and to keep out of a charge of undue reference, they also quoted a concessional rate for Jaipur Udyog Ltd. The Railway's proposal under examination in 1966 was that the rate in favour of Digvijay Cement Co. be withdrawn and an increased concession granted in favour of Jaipur Udyog Ltd. The order passed by Additional Member, Commercial, on 21-10-1966 was that no further concesison be granted to Jaipur Udyog Ltd., and the Railway be asked to make their considered recommendations as regards withdrawal of the special rate granted to Digvijay Cement Co., after consulting their Law Officer. This order had the effect of maintaining, for the time being, the *status quo*. There appeared, therefore, no need for mentioning that the Minister of State for Railways had, on a personal representation made to him by Jaipur Udyog Ltd., desired further examination of the matter.

2. The Minister had expressed no opinion for or against the firm's request being granted; he had only directed further examination of the case. The order passed by Additional Member, Commercial would not, in any manner, preclude such further examination. On the other hand, that the Minister had desire further examination of the matter did not constitute any reason for not taking, meanwhile, action on the order passed by Additional Member, Commercial."

5.23. In reply to another question as to why the decision taken on 21-10-1966 by the Additional Member (Commercial) was not brought to the notice of the Minister to whom representation had been made by the firm, the Railway Board have stated: "It would be noticed from paragraphs 2 to 4 of the note of Joint Director, Traffic, Rates dated 19-6-1967 that during the meeting of the firm's representatives with the Minister, he countered the arguments advanced by them. To quote from his note, "M.S.R. desired that I *further examine* this matter after having a look at the agreement and

whatever other material the firm might have to reduce." (Emphasis supplied). It may be repeated that the Minister had not expressed any view for or against the grant of the increased concession asked for; he had only desired the matter to be further examined. To apprise the Minister a few days after the meeting of the firm's representatives with him of the decision taken by Additional Member, Commercial, would have amounted to advising him that subsequent to that meeting but on the basis of an examination made prior to it, it had been decided to turn down the request, but as desired by him the matter would be further examined. It will, it is hoped, be appreciated that this would have served little purpose. In fact, the Minister would, with good reason, have taken exception to that decision of the Board being put up to him "for present information."

5.24. The Committee were also informed that after the firm's representatives met the Minister of State for Railways on 20-10-66 in the presence of the Joint Director, Traffic Rates, no noting was made by the Joint Director Traffic (Rates) before 19-6-1967. In this regard the Chairman, Railway Board stated during evidence: "This is a lapse in procedure I accept."

(iii) On the basis of a note recorded by the Joint Director Traffic (Rates) on 19-6-67 the Additional Member (Commercial) (who is different from the officer who issued orders on 21-10-66 agrees on 30-8-67 that the rate chargeable from the firm may be reduced. These orders are conveyed to the Western Railway on 31-8-67.

5.25. In the note of 19-6-67 recorded by the Joint Director Traffic (Rates) no mention was made of the earlier orders given on 21-10-66 by the previous Additional Member (Commercial). As to why this was not done has been explained by the Railway Board as under:

"There was no particular reason for not making a mention of the earlier orders. On the other hand, however, the matter had been re-examined at length and mention of the earlier orders of Additional Member, Commercial, would not have made any difference to the decision taken in August, 1967.

It may be mentioned that while dealing with the note of Joint Director, Traffic (Rates) Finance took notice of his earlier note on which Additional Member, Commercial, had passed the order dated 21-10-1966 and that note was put up to Additional Member, Commercial along with the later note of Joint Director Traffic (Rates) and the comments of Finance on the proposal made by him."

5.26. The Committee also enquired that considering the time that had lapsed since the issue of the earlier orders in 1966 and the fact that the orders were being revised more or less on the same facts, why the Joint Director did not consult the Western Railway authorities before recommending a change in the freight rate and why the matter was not brought to the notice of the Minister as it was at the instance of the previous Minister that a review leading to the change was undertaken. In a written note the Railway Board have stated: "There had been no significant change so far as the facts of the case were concerned, and as the note of Joint Director

Traffic (Rates) brings it out, he was in possession of complete facts of the case. For detailed examination of the aspects on which the firm had laid special stress, the material required was available in the Railway Board Office. He did not, therefore, feel the need for consulting the Railway.

5.27. It may be mentioned that even though the Railway were not consulted at this stage, the material put up by them earlier was given due consideration before Additional Member, Commercial, took the decision. In fact, the rate finally settled for was the rate recommended earlier by the Railway.

5.28. As for the matter not having been placed before the new Minister, it may be pointed out that even though the earlier Minister had desired the matter to be further examined, he had not indicated that it be put up to him for a decision. He had left it entirely to the Railway Board to settle it. In fact, he did not even ask for the outcome of the further examination to be advised to him. (It is, in this context, significant that from 20-10-1966 up to 12-3-1967, when he relinquished charge of the post of H.S.R., he did not even once make any enquiry concerning this matter). The decision was taken by the Board strictly on the merits of the case. If the same Minister had continued papers might perhaps have been put up to him for information. There appeared no need for the new Minister being advised of the decision taken."

(iv) On receipt of the Board's orders dated 31-8-67, the Western Railway writes to the Board on 16-9-67 that the circumstances had altered since the issue of their earlier letter of 4-5-1965 in which they had recommended a reduction in the freight rate. There is protacted correspondence between the Board and the Western Railway and on 29-5-70 the Additional Member (Commercial) agrees to an increase in the freight rate to be brought into force from 1-7-1970. The decision arrived at took a period of about 2 years and 8 months.

(v) On 14-8-70, after the new rate had become effective, the Western Railway again approached the Railway Board with the suggestion that the concessional rate allowed to the firm may be totally withdrawn. The Railway Board's decision to further enhancing the rate chargeable to the firm was conveyed to the Western Railway on 1-6-71 i.e. after a lapse of about 10 months.

5.29. The Committee desired to know whether any decision has been taken on the proposal regarding withdrawal of the concession given to the firm which was stated to be under consideration. In this connection the Railway Board intimated: "From 1st January, 1972, the concession was withdrawn. However, the firm has filed a writ petition in the Rajasthan High Court against this withdrawal and the Court has issued a stay order.

As the firm had enjoyed the benefit of this lower rate for a sufficiently long time and as the lower rate which had been in existence for M/s. Digvijay Cement Co., Sika had been withdrawn, it was decided to withdraw this rate also."

5.30. In reply to another question, it has been stated that "No similar concessions to any firm for carriage of raw material are in force today."

5.31. **From the chronological sequence of the various orders passed and the action taken by the Railway Board and the Western Railway the Committee find that the time taken in arriving at certain decisions was unduly long. For example, the first reference from the Western Railway recommending further reduction in the concession rate was issued on 4-5-65 while a decision of the Railway Board on this was communicated to the Western Railway on 4-11-66 i.e. exactly after 1½ years. Similarly on another letter sent by the Western Railway on 16-9-67 in which it had been pleaded that there was no case for further reduction in the concession rate because of change in circumstances, the Railway Board could finalise their decision on 29-5-70 i.e. after a lapse of 2½ years. Again a proposal regarding complete withdrawal of concession made by the Western Railway on 14-8-70 was agreed to by the Railway Board on 1-6-71 i.e. after a period of more than nine months. This does not speak well of a commercial organisation like the Railways. Since any delay is taking a decision has its financial implications, the Committee need hardly emphasize that decisions should be taken without any avoidable loss of time. As has been pointed out by Audit the special concessional rate of Rs. 4.30 per tonne levied during the period from September, 1967 to June, 1970 (when the matter remained under consideration) but withdrawn thereafter had resulted in loss of revenue to the extent of Rs. 5.85 lakhs. The Committee takes a serious note of this and would like to recommend that suitable instructions be issued to all concerned to obviate recurrence of such cases.**

5.32. **The Committee are also unhappy about the serious procedural lapses at various stages that have come to their notice. In this connection they would like to point out that although the representative of the firm had met the Minister on 20-10-66 and the Joint Director (Rates) was present at the meeting the latter recorded a note relating to the meeting on 19-6-67 after eight months. The Chairman, Railway Board admitted that this was a procedural lapse. The Committee would like that the officer concerned should be asked to give an explanation for this omission and appropriate action should be taken. Suitable instructions should also be issued to avoid recurrence of such omisisons.**

Central Railway—Works started on Urgency Certificates

Audit Paragraph

5.33. As per extent rules, no work may be commenced and no liability on expenditure incurred on a work until a detailed estimate is sanctioned and requisite funds allotted by the competent authority. However, as an exception, works considered necessary to safeguard life, property or to repair damages to the line caused by floods, accidents etc. and those required to meet immediate needs of traffic could only be started without such sanction.

5.34. The Railway Administration in order to increase the line capacity to cater to the increase in traffic anticipated at the end of Third Five Year Plan, sanctioned doubling works on Itarsi-Jabalpur section on urgency certificates. Out of 152 miles of this section patch doubling in respect of 71 miles as a first phase was included in the

works programme upto 1962-63. For Doubling of the remaining portion, the Railway Administration approached Railway Board in June/July, 1962 for the sanction of urgency certificates to which the Railway Board did not agree. However, on repeated representations by the Railway Administration, the Railway Board sanctioned Urgency Certificates in June/July, 1963 for patch doubling of about 166.29 Kms. of Itarsi-Jabalpur section, even though earlier, in December, 1962 the Board had stated that if the works were to be taken against budget provision to be made in 1963-64, there was no necessity for the Urgency Certificate and that there was enough time for the preparation of Abstract Estimates for the work.

5.35. In spite of the plea of urgency, there were delays of more than a year in 8 out of the 17 cases in the preparation of Abstract Estimates and delays ranging from 6 months to 35 months in the opening of some of the sections to traffic with reference to the original target dates. The execution of contracts in a few cases was delayed due to large increases in the quantities of work, delay in acquisition of land, finalisation of plans and drawings, slowing down of works due to paucity of funds etc. The tenders for most of these works were invited on the basis of inadequate data in the absence of detailed estimates which resulted in abnormal variations in quantities in some cases during actual execution of works.

5.36. The variations in quantities gave rise to claims for extra payment from contractors and sum of Rs. 4.58 lakhs was paid to three contractors on this account. In addition a sum of Rs. 1.22 lakhs was paid to one contractor as a result of arbitration.

5.37. In other sections of the Railway also, where works were sanctioned on urgency certificates, there were delays in preparation of Abstract Estimates (about 2 years) in some cases and in opening of the section to traffic (from 3 months to 24 months) in some cases. As the tenders were floated on inaccurate data, there were large variations in the quantities in some cases even to the extent of 5,000 per cent in one item. Due to abnormal variations in the quantities and inordinate delays in the preparation of plants etc. the execution of works was delayed from 6 to 24 months. Additional payment to the tune of Rs. 4.55 lakhs had to be made to the contractors in two cases in settlement of their claims for increased rates for the additional quantities. Further claims amounting to Rs. 15.63 lakhs for various other reasons were preferred by the contractors out of which Rs. 9.13 lakhs have been awarded by the arbitrators to the contractors. A sum of Rs. 2.48 lakhs has already been paid in satisfaction of awards in other two cases.

[Paragraph 46, Report of the Comptroller and Auditor General for the year 1969-70 on Railways.]

5.38. The Committee enquired under what circumstances and conditions urgency certificates were issued. The Chairman, Railway Board informed the Committee that "Urgency Certificates are sanctioned in the following circumstances as per the code: (a) works which are considered to be urgently necessary to safeguard life or property or repair damage to the line caused by flood, accident or

other unforeseen contingencies so as to restore or maintain through communication; (b) works considered urgent but not falling within (a) above, as for instance, works required to meet the immediate needs of traffic which are considered so urgent that they must be started before the earliest date by which detailed estimates could be prepared."

5.39. Asked whether either of the two conditions was applicable to the sanctioning of doubling works on Itarsi-Jabalpur section on urgency certificates, the witness replied: "On the basis of evidence available at the time and the criticism faced by the Railways in 1960-61, when there was not enough transport capacity for movement of coal, the works were considered to be of such a nature that they had to be started immediately."

5.40. The Audit para states that for doubling of a portion of Itarsi-Jabalpur section when the Railway Administration approached the Railway Board in July, 1962, for the sanction of urgency certificates, the Railway Board did not agree. However, the Railway Board sanctioned the urgency certificates a year later, i.e., in July, 1963. During evidence when the Committee desired to know the reasons for this the Chairman, Railway Board, stated: "This was as a result of the observations made by the P.A.C. in their 40th Report that urgency certificate must not be sanctioned ordinarily as Railways had been sanctioning such certificates rather liberally. They took a very strict view. Later when the G.M. pointed that the lead time for completing this work is much and there would be serious difficulty in moving coal if traffic materialised, the Board were persuaded to sanction the urgency certificates."

5.41. In reply to another question, the witness added : "I would only submit that it would have been wiser to have sanctioned this in 1962 itself, but having faced these criticisms and seen the observations of the Public Accounts Committee, perhaps there was a little caution in dealing with this issue."

5.42. The Committee were informed during evidence that according to the Railway Code only small works were taken up under urgency certificates and the time normally allowed for sending an estimate after the sanction of urgency certificate was conventionally a short period. It was also stated that the doubling of Itarsi-Jabalpur section was not a small work. As to why this work, which was not a small work, was sanctioned on urgency certificate was explained by the Chairman, Railway Board, as follows : "I can only say that the General Manager, in the first instance, asked for this to be sanctioned on urgency certificate. At that time, the Railway Ministry had already spent its Plan funds under that head and it was waiting for this work to be taken up in the next Plan period. But as time was passing, the General Manager pointed out that the work to be done was of such a big nature that one must make some allowance for some little things to be delayed and this work must be sanctioned under an urgency certificate, otherwise one clear year might be lost and there might be adverse repercussions on the capacity if the traffic did materialise as anticipated."

5.43. Explaining the reasons for the delay in the preparation of Abstract Estimates as pointed out in the Audit paragraph, the Chairman, Railway Board, stated during evidence : "As for the second

aspect of delay in estimates, the normal procedure for making out an estimate is when we are dealing with a large work or several works costing Rs. 2 crores, 2½ crores etc. we sanction a survey estimate for carrying out a survey and preparation of a detailed estimate. This normally takes 15—18 months. If all the works are sanctioned at the same time for the purpose of survey and preparing detailed estimates, we have to expect that since all the works have to be taken up together, it will take anything upto 2 years. Since the work had to be done immediately and the urgency certificate was sanctioned. However, the time required for preparation of the estimate was itself upto about 2 years. In the urgency certificate the date fixed for submission of the estimate was, I submit, not very realistic. It must bear some relation to the time required for a detailed survey and for preparation of detailed estimate which has got to be checked at various levels, i.e., at the divisional level, divisional accounts level, headquarters level, headquarters accounts level and then sent to the Board."

5.44. As regards the delay in the opening of some of the sections to traffic with reference to the original target dates, the Chairman, Railway Board deposed: "As far as delay in the completion of the work is concerned, at the time we started this work, nobody foresaw the hostilities of 1965 or the two droughts of 195-66 and 1966-67. The railways had spent a very substantial part of allotted funds for the Third Plan and due to the difficult conditions of Indo-pak hostilities and the two drought years, the Board were not in a position to sanction funds to the extent required for progressing the work. We also had difficulty in getting p.w. materials and some matching steel for girders. But despite these, work was completed by the date the detailed estimates were finally sanctioned, completed in 3 sections—in one section 65 per cent, in another 50 per cent, in the third 40 per cent and two sections 30 per cent. So by sanction of the urgency certificates, we were able to get this much percentage of work completed before the estimates were actually received and sanctioned."

5.45. The Committee desired to know what kind of financial control was exercised by the Railways when works which are likely to take long time were sanctioned under urgency certificates. In this connection the Committee also pointed out that there may be cases where the works are sanctioned under emergency provisions but the funds are not provided for or expenditure may be incurred which ultimately proves to be unnecessary. In reply, the Financial Commissioner for Railway stated during evidence: "You have quite correctly mentioned the purpose of sanctioning emergency works. In that view, I think there is a good deal of force in the criticism made in the Audit Report. The Board also is aware of it and over the years we have tightened this procedure. Statistics will show that the number of works sanctioned on urgency certificates has come down considerably. In 1963-64, 31 works were sanctioned; in 1962-63 it was 28; in 1964-65 it came down to 2; in 1965-66 it was 1; in 1966-67 it was 2; 1967-68 it was 3; and in 1968-69 it was 3. So, the criticism made is appreciated. Moreover, it is also a subjective view. Those sanctioning sometimes feel that it has to be sanctioned under urgency certificates, whereas some others may not feel the same way, but the

point made by you I think has been realized as will be seen from the fact that in subsequent years the number of works sanctioned on urgency certificates has come down to one or two."

5.46. Referring to the large number of cases sanctioned under emergency certificates in earlier years, as compared to the few cases sanctioned in recent years, the Committee enquired whether the cases in the past had been sanctioned without consideding the urgency of the matter. The Chairman, Railway Board stated: "I submit that this is because the traffic has not been materialising according to expectation, and we have been more careful in sanctioning urgency certificates due to that reason. It is not that there is no urgency; if there is an urgency to do a work, we still have to sanction it on urgency certificate. Because of our experience that traffic had not materialised in some cases, we have to be careful.

As I explained, in 1960-61, we faced a transport crisis in the movement of coal and we cannot afford to have another crisis of that nature. We have to plan and take the figures of traffic as anticipated. And it is only towards the end of the Third Plan that we saw that the traffic expected was not materialised and we have been very careful since then."

5.47. **The Committee note that as a result of the recommendations made by them in para 11 of their 40th Report (Second Lok Sabha) and in Para 95 of the First Report (Third Lok Sabha) the number of works sanctioned under urgency certificates has been considerably brought down from year to year. The Committee desire that Railway Board should exercise utmost care before sanctioning works under emergency provisions. As a rule only small works of really emergent nature should be sanctioned under urgency certificates. The Committee feel that under no circumstances huge works costing crores of rupees and requiring years for completion should be sanctioned under urgency certificate unless the Board is otherwise satisfied that the work is really urgent. Even in such cases estimates should be finalised on urgent basis and no expenditure should be incurred before the estimates are properly sanctioned.**

General

5.48. **The Committee have not made recommendations/observations in respect of some of the paragraphs of the Report of the Comptroller and Auditor General of India for the year 1969-70—Central Government (Railways). They expect that the Ministry of Railways (Railway Board) will take note of the contents of the other paragraphs dealt within the Audit Report and take suitable remedial action in consultation with audit where necessary.**

NEW DELHI;
April 24, 1972
Vaisakha 4, 1894 (*S*)

ERA SEZHIYAN,
Chairman,
Public Accounts Committee.

APPENDIX I

(*See* para 1.115 of Report)

Background

There was a significant increase during this period in road kilometerage and goods vehicles. As against a kilometerage of 4.15 lakhs of allweather motorable roads at the end of 1960-61, the figure was 6.16 lakhs km. or an increase of 29.7 per cent at the end of 1968-69. During the same period the number of goods vehicles increased from 1.68 lakhs to 3.06 lakhs i.e. an increase of 83.2 per cent.

2. Railways have a statutory obligation to carry all traffic offered at scheduled freight rates irrespective of the net return to Railways in carrying it. Road carriers, however, can and do pick and choose the commodities and routes and can also vary their freight charges according to prevailing conditions. Besides, road transport has the advantage of door to door service and quicker transit.

3. The result was that while the total originating revenue earning goods traffic moved by Indian Railways increased from 119.8 million tonnes in 1960-61 to 173.8 million tonnes in 1968-69, the percentage of traffic other than low rated traffic (low rated traffic is traffic in coal, ores, marble and stones, salt, foodgrains, fertilizers, fodder) to total revenue earning goods traffic decreased from 34.2 per cent to 27.2 per cent during the same period.

Setting up of Marketing and Sales Organisation on Indian Railways

4. Various measures have been taken by Indian Railways to arrest this trend and to get back high rated traffic to rail. One of the principal steps was the setting up in June 1967 of a Marketing and Sales Organisation. In the Railway Board, this organisation functions under a Joint Director, who co-ordinates the working of Marketing and Sales Superintendents, provided on each Zonal Railway.

5. Officers and men possessing qualities of salesmanship, drive and initiative and having flair for traffic canvassing, rail road competition, rating etc. were selected to man this organisation. By and large Marketing and Sales Organisations on Zonal Railways were created by re-organisation of existing cadres and not by creation of new posts.

6. Railway Minister had referred to the setting up of this Organisation in his Budget Speech in February, 1968.

Objectives and functions of this Organisation

7. The functions of this Organisation are, as under:

(a) Maintaining close liaison with manufacturers and trading interests to ascertain and try to solve their problems in connection with expeditious and safe transportation of their goods by rail.

(b) Marketing & Research, prospecting and development.

(c) Commodity/road surveys to ascertain commoditywise pattern of traffic moving by road and the points between which this traffic moved with a view to assess as to which of this traffic could be brought to railways with advantage.

(d) Measures for meeting rail-road competition.

Activities of Marketing and Sales Organisation to achieve the Objectives—(i) *Container Services*

8. Container services were provided to give facility of safe transport of goods from the premises of the consignor to the premises of the consignee without any handling at railway goods sheds. The use of the containers eliminated the need for elaborate packing and the incidence of pilferage and damage during transit. These containers were moved by nominated express goods trains. The first container service was introduced between Bombay and Ahmedabad in January 1966 with 4.5 tonne containers. Later, 5-tonne containers were provided. The service has become very popular particularly for high valued cargo on Western, Central and Northern Railways. The routes on which container services are operating now are as under:—

Service	Date of introduction
Bombay—Ahmedabad	January, 1966
Bombay—New Delhi	November, 1967
Madras—Bangalore	January, 1969
Howrah—New Delhi	March, 1969
Bombay—Madras	April, 1969
Bombay—Secunderabad	June, 1969
Bombay—Bangalore	November, 1969
Calcutta—Madras	November, 1970
Bombay—Calcutta	April, 1971

9. Large scale expansion of these services is planned during the ensuing years and it is expected by the end of 4th Plan the services would be available between 20 stations or points.

(ii) *Provision of*

(a) *City Booking offices*

(b) *Out-Agencies (in towns not connected by rail).*

(c) *Street collection & delivery services and mobile booking offices*

10. 127 City Booking Agencies/Offices and 163 Out-Agencies are presently functioning on Indian Railways.

11. With a view to provide door to door service to rail users in respect of non-containerised traffic, 28 street collection and delivery services have been provided in principal towns in the country. The Railway receipts for goods thus collected are delivered to the consignors at goods sheds.

12. In addition, mobile booking services where not only the goods are collected/delivered at users' premises but railway receipts are also issued at their premises have been set up at Calcutta, Delhi, Bombay, Madras and Poona.

(iii) *Freight Forwarder Schemes*

13. Freight Forwarders are appointed by railways to collect goods consignments from the premises of individual manufacturers/

trading interests and to offer them in wagon loads at the principal goods depots for certain selected destinations. At the destinations, these consignments are again taken delivery of by the freight forwarders and delivered at the consignees' premises. Railways secured the following advantages from this system:—

(a) Elimination of handling of "Smalls" (less than wagon load) consignments at booking and destination stations and intermediate repacking points en-route, thus eliminating chances of pilferage, damage, etc. and reducing transit time,

(b) securing better payload for wagons.

14. This system was first introduced in July, 1969 and has in a very short time become very popular. It is now available between the following points:—

(i) Bombay and Calcutta
(ii) Calcutta and Madras
(iii) Ahmedabad and Calcutta
(iv) Bombay to Tatanagar (one way only)
(v) Cochin to Calcutta (one way only)
(vi) Cochin to Kharagpur (one way only)
(vii) Madras to Kharagpur (one way only)
(viii) Cochin to New Delhi (one way only)
(ix) Madras to New Delhi (one way only)
(x) Madras to Bombay (one way only)
(xi) Madras to Tatanagar (one way only).

(iv) *Super Express Goods Services*

15. With a view to ensure speedy transit of goods between principal towns of India and stations en-route connecting these towns, super express goods trains were started from 1965 and now run between most of the important towns in India. These super express goods trains run to fixed timings notified in time-tables. The points between which these trains are running are as under:—

(a) Bombay (Sarnac Bridge) to New Delhi and vice-versa.
(b) Bombay (Wadi Bunder) to Madras (Salt Cotaurs) and vice-versa,
(c) Bombay (Wadi Bunder) to Calcutta (Shalimar) and vice-versa,
(d) New Delhi to Calcutta (Howrah) and vice-versa.
(e) Madras (Salt Cotaurs) to Calcutta (Shalimar) and vice-versa,
(f) New Delhi to Madras (Salt Cotaurs) and vice-versa.

(v) *Quick transit service*

16. These services were first introduced in April 1956, between specific points. Under this system, targets transit time is fixed for wagon load consignments booked from one specific point to another and a small Quick Transit Service charge is levied (3 per cent of the

total freight upto 15th October 1971 and now raised to 5 per cent) on consignments moving under this scheme. This charge is refunded if the consignments do not arrive at destination within the target time.

17. Road-wise/commodity-wise surveys of road traffic are being undertaken by Marketing and Sales Organisation of Zonal Railways. The objectives of these surveys are:

(a) analysing the pattern of traffic moving by road,

(b) determining as to which of this traffic would it be financially remunerative for railways to move,

(c) steps and freight concessions, necessary, to give such of this traffic back to railways as is financially profitable for railways to move.

A list of the principal commodity/route surveys conducted by the railways is enclosed (Annexure).

Review of priority schedule

18. A review of priority schedule (for movement of goods and wagon supply) is being done with a view to provide higher priority of movement for profitable traffic and its quicker clearance.

Liaison and contact with Trade and Industry

19. Marketing and Sales Supdt. also keep liaison and contact with trade and industry. Special attention is paid to important users and (non-captive) streams of traffic to ascertain and try to solve their problems in connection with expeditious and safe transport of their goods by rail. The traffic which is specially watched has been identified by each railway taking into account the volume from particular station, area or industry freight earnings and vulnerability to road competition, special efforts are made for prompt clearance of the traffic and its quick transit. Monthly figures of loading and earnings are also compiled and compared.

Better facilities for movement of parcels traffic

20. Close liaison is maintained with trade and industry for movement by parcels of commodities like medicines, automobiles, toilet goods, fruits and vegetables.

Restriction free booking from important Goods Depots

21. Booking of goods traffic from selected important stations on each Zonal Railway is exempted from operational restrictions. This facility is now available at the following goods depots:—

Central—Wadi Bunder (Bombay), Belanganj (Agra) and Faridabad (including Ballabagarh siding).

Eastern—Calcutta (Howrah and Chitpur) and Patna.

Northern—Kanpur, Amritsar and Delhi Lahori Gate.

North Eastern—Kanpur Cooperganj, Hathras City, Raxaul (i.e. rail head for Nepal).

Southern—Madras (Salt Cotaurs), Bangalore and Coimbatore.

South Eastern—Calcutta (Shalimar), Tatanagar and Cuttack.

Western—Bombay (Carnac Bridge), Ahmedabad, Jaipur and Mandsaur.

Exemption of high rated commodities from operational restrictions

22. High rated commodities classified at class 60 and above are normally exempted from operational restrictions since last year.

Results Achieved:

(i) *Increase in high-rated traffic*

23. The percentage of traffic other than low rated to total originating revenue earning goods traffic increased from 27.2 per cent in 1968-69 to 32.3 per cent in 1970-71.

24. The quantum of increase in 1970-71 vis-a-vis 1969-70 in originating loading and earnings of 47 selected high-rated commodities susceptible to diversion to road transport on Indian Railways was 3.1 per cent and 8 per cent respectively.

25. The increase in traffic in selected high-rated commodities was particularly significant on North Eastern, Northern, Southern and Western Railway as will be seen from the following figures:

Railways	% increase in 1970-71 vis-a-vis 1969-70	
	in quantum of originating traffic	in quantum of earnings
North Eastern	9·8	19·7
Northern	9·5	10·5
Western	9·4	9·8
Southern	7·3	13·6

26. The increase in originating loading and earnings of selected high rated commodities referred to above is particularly significant when compared to a 3 per cent reduction in total originating revenue earning traffic on Indian Railways and an increase of 3.5 per cent in earnings therefrom during the same period.

(ii) *Increase in containerised traffic*

27. The loading of containers and earnings therefrom have shown a remarkable increase during the last five years as will be seen from the following table:—

Year	No. of containers loaded on all services	Freight earned (Rs. lakhs)
1966-67	1,864	3·68
1967-68	3,540	9·34
1968-69	9,306	34·04
1969-70	20,484	75·15
1970-71	25,585	97·98
1971-72	23,908	106·72
(Upto December 1971)		(approximately)

28. The earnings per container owned by Indian Railways have shown a constant improvement as will be seen from the following figures:

Year	Earnings in Rs. per container owned by Indian Railways
1968-69	11,804
1969-70	14,121
1970-71	16,607
1971-72 (Upto Dec. 1971)	20,000 (approximately)

(iii) *Increase in traffic booked by freight forwarders*

29. The success of freight forwarder schemes referred to earlier can be judged from the following figures:—

Year	No. of wagons loaded	Freight earned (Rs. Lakhs)
1969-70	496	12·32
1970-71	2,315	60·28
1971-72 (Upto December 1971)	2,986	81·28

(iv) *Quick Transit Service Scheme*

30. 77.1 per cent of the consignments booked under Quick Transit Service reached destination within target time in 1969-70 despite the disturbed conditions in Eastern part of the country. This was an improvement over the achievement of 1968-69 when 73.2 per cent of these consignments arrived destination within target time.

ANNEXURE

List of principal commodity/route surveys conducted by railways

Commodity Surveys

Central Railway	..	Textiles, Cotton, Bidi, Sugar.
Eastern Railway	..	Jute Raw, Rubber manufactured.
Northern Railway	..	Sugar and Cotton (full and half pressed and loose)
North Eastern Railway	..	Grains and Pulses, Oil Seeds, Wood Unwrought and Jute
Northeast Frontier Railway		Petroleum products.
South-Central Rly.	..	Sugar.
South Eastern Rly.	..	Fertiliser, Oxygen & Acetylene Gas, Ferro Silicon. Jute Manufactured and Raw.

Route Surveys

Central Railway	..	At Panvel for Bombay—Madras/Bangalore/Secunderabad traffic. At Thana for traffic from or towards Delhi/Calcutta.
Northern Railway	..	Kanpur Howrah route, Pathankot. Mandi Dabwali (Punjab).
North Eastern Rly.	..	Ayodhya Bridge over river Sarayu, Basti.
Southern Railway	..	Kanjikode (Kerala State) Checkpost.
South Central Rly.	..	Secunderabad.
South Eastern Rly.	..	Koilaghat Bridge for traffic between Calcutta and South/Southwest, Uluberia Check post.
Western Railway	..	Road survey on Bassein Bridge for traffic between Bombay and Gujarat, M.P., Rajasthan, Western U.P., Delhi, Punjab, Haryana, Himachal Pradesh and Jammu & Kashmir.

APPENDIX II

(*See* para 4.51 of Report)

Details of quantity of wooden sleepers procured from State Forest areas by the Indian Railways

State Forest Area	Qty. procured in terms of lacs cft.	
	1964-65	1967-68
Assam & Nagaland	17·42	8·57
Uttar Pradesh	9·20	8·62
Mysore	13·04	6·35
Kerala	1·26	0·26
Himachal Pradesh	2·59	1·96
Jammu & Kashmir	13·79	13·89

APPENDIX III

(*See* para 4.55 of Report)

Details of initial cost of sleepers of various types with fittings etc.

Type of sleeper	Cost of sleeper with fittings and other incidental charges		Remarks
	Rs.	Rs.	
	B.G.	M.G.	
1. Wooden sleeper non-durable	55	32	
2. (*i*) Wooden durable	16	21	
(*ii*) Wooden durable with bearing plates	61	32	
3. Cast Iron CST-9 sleepers	76(92)*(b)	45(55)*(b)	*(b) Revised cost as per latest cost data.
4. Steel sleepers	90(92)(b)	..	
5. Concrete sleepers			
(*i*) Mono block	134	..	
(*ii*) Two block	152	..	

APPENDIX IV

(*See* para 4.55 of Report)

Details of annual cost of service of various types of sleepers

Type of sleeper	Annual cost of service (excluding the maintenance cost of all types of sleepers)		Remarks
	B.G.	M.G.	
	Rs.	Rs.	
1. Wooden sleeper (Non-durable)	7,992	4,374	
2. Wooden sleeper durable	7,584	3,718	
3. Cast Iron CST-9 sleepers	6,966 8,720 (a)	3,920 5,008 (a)	(a) As per latest cost data.
4. Steel sleepers	7,786 7,994 (*a*)	..	
5. Concrete sleeper:			
(*i*) Mono block (b)	10,335	..	(b) Entirely new item.
(*ii*) Two block (b)	11,061	..	incidence of development expenses, interest on capital, cost of handling equipments, automatic track machines etc. not taken into account.

APPENDIX V

Summary of the main conclusions/recommendations

Sl. No.	Para No.	Ministry/ Deptt. concerned	Recommendation
1	2	3	4
1	1·14	Rly.	The Committee note with concern that for the Fourth year in succession the working of the Railways showed a deficit in 1969-70 also. Against a nominal surplus of Rs. 1·92 crores anticipated in the Budget, the accounts for the year closed with a deficit of Rs. 9·83 crores. Apart from the unsatisfactory state of Railway finances which is reflected in the working results during the year under review i.e. 1969-70, the Committee feel that the methods employed for estimation of earnings and expenditure require further improvement. During the past four years over-estimation of goods traffic and goods earnings and under-estimation of the revenue expenditure seems to have been the most significant recurring feature of the Railway Budgets. The over-estimation of goods traffic and goods earnings can only mean that the anticipations of traffic given out by various Ministries/Departments of Government of India are not scrutinised in the light of experience at the initial stages with the utmost care they deserve. The Committee are of the view that with the vast experience and elaborate planning machinery which they have, the Railway Board should be in a position to exercise a judicious check on the traffic anticipations by other Ministries/Departments so as to arrive at realistic targets for achievement. In this connection the Committee would also like to draw attention to para 1·25 of their 116th Report (Fourth Lok Sabha) wherein it was emphasised that the estimation of traffic requirements should be done on a more realistic basis.
2	1·23	Rly.	The Committee note that during 1969-70, because of the Revenue Reserve Fund having been depleted, the Railways were obliged to take a loan of Rs. 8·86 crores from the General Revenues for meeting their dividend liability. This is decidedly an undesirable phenomenon which needs to be curbed.
3	1·24		Besides this the Railways have also taken loans of the order of Rs. 43·45 crores till the end of 1969-70

1	2	3	4
			for meeting the cost of works charged to Development Fund and over and above these they are indebted to the General Revenues to the extent of Rs. 56·89 crores on account of deferred dividend on the new lines. During the year 1969-70 deferred dividend of Rs. 13·04 crores became due for payment but could not be paid owing to inadequate surplus in the working of the new lines concerned. The Committee desire that action should be taken to ensure that revenue expenditure on these lines is reduced to the minimum and that earnings are augmented by attracting more traffic so that the arrears of dividend get paid and not extinguished after 20 years of opening when the liability to pay arrears ceases.
4	1·25	Rly.	During evidence it was stated that due to increase in prices over the years the cost of staff and various inputs such as fuel and other materials like iron and steel had gone upto a very great extent as compared to the increases in the fares and freight rates charged by the Railways and therefore the Railways continued to be in the red. The Committee would like to stress that in these circumstances all out efforts should be made to cut out avoidable expenditure and attract more traffic to Railways by improving the service. The Committee note that the Railway Convention Committee are currently examining the working of Railways with special reference to their obligations to the general exchequer and would be presenting in due course their Report on the subject.
5	1·42	Rly.	During evidence it was made out that one of the reasons for the growing deficit on Railways was the increased cost of social burdens borne by them. From the information made available to the Committee it is seen that in 1970-71 out of a total loss of about Rs. 123 crores attributable to social burdens loss on non-suburban passenger traffic and other coaching traffic taken together was estimated at Rs. 47 crores. The Committee were, however, surprised to learn that the costing of various services such as passenger, parcel and other coaching traffic has not been undertaken so far. The economic of different services in passenger trains such as 1st Class, Air-conditioned, Third Class etc., have also not been worked out. Only now some data are being collected for evalua-

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			tion purposes. While the Committee do not want to make any detailed suggestions in this behalf because the Railway Convention Committee may be going into the entire question of social burdens, they would nevertheless suggest that passenger trains which are unremunerative and the classes of services like Air-conditioned and First Class which do not pay for themselves should be expeditiously identified with a view to taking remedial action and reducing the loss to the minimum.
6	1·50	Rly.	The Committee view with concern that in 1969-70 besides the three Railways namely Southern, North Eastern and Northeast Frontier which had been running into deficits, the working of the South Central Railway also showed a deficit. During the year under review the financial results of working of the Southern and South Central Railways showed marked deterioration as compared to the previous year. The increase in the working expenses on Eastern, Southern and South Central Railways was much more than increase in receipts and the increases in earnings on Northern, Northeast Frontier and North Eastern Railways was not adequate to meet the deficits on account of increase in working expenses. There is thus need for improving operations on these Railways as also of effecting economies.
7	1·60	Rly.	The Committee note that even though the position of net revenues as a ratio to capital-at-charge has shown an upward trend in 1968-69 and 1969-70, the deficits are increasing primarily as a result of growing payments to General Revenues arising from additional capital investment, of which the current investment constitutes a major portion. The Committee have repeatedly emphasised the need for great selectivity in incurring capital expenditure on Railways. If the additions to capital are not made with a view to ensuring overall remunerativeness the deficits may grow. The Committee would therefore like that all investment proposals should be thoroughly scrutinised so as not to accentuate the difficult financial position of the Railways.
8	1·71	Rly.	The Committee find that about Rs. 26 crores have been invested by the Railways in various State Road

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			Transport Corporations primarily with a view to regulate rail-road coordination. Even though the Railways are getting adequate return on their investment in the form of fixed rate of interest, the aim of rail-road coordination has not been achieved. The basic reason for this is that the representation of the Railway Board on the Boards of Directors of these Undertakings is not effective enough. The Committee recommend that the Railway Board should in concert with the Ministry of Transport and State Governments review the position to devise methods for making the Railways' participation more effective.
9	1·82	Rly.	The Committee note that the availability of wagons for movement of coal deteriorated considerably from September, 1970 and this position persisted till about July, 1971. The deterioration has been attributed to a strike for some days on the Eastern Railway and the unsatisfactory law and order conditions in the West Bengal area. These difficulties were, however, got over as a result of the concerted drive instituted by the Railways in cooperation with the State Government and consequently the position returned to normal from August, 1971 onwards. The Committee feel that efforts to restore normaly in the movement of coal should have been initiated much earlier. For the future the Committee would suggest that particular care should be taken at all levels to ensure that the movement of coal does not suffer because of non- availability of wagons.
10	1·97	Rly.	The Committee regret to observe that the operating ratios of the Southern, South Central and Western Railways are steadily deteriorating from year to year. The North Eastern and North East Frontier Railways which have very high operating ratios are, however, showing some improvement in that their operating ratios are gradually coming down. Whereas it may not be quite appropriate to compare the working results of one Railway with another because of the circumstances peculiar to each Railway, the Committee feel that comparison of performance of each Railway from year to year should reflect the result of measures taken to effect improvements and economies in the working of the Railways. The

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			Committee would therefore like the Railway Board to continuously review the working of each Railway and take prompt remedial measures to augment earnings by improving quality of service and effecting all possible economies by more efficient operations.
11	1·118	Rly.	In para 1·75 of their 11th Report (Fifth Lok Sabha) the Committee had pointed out that there had been steep decline in the percentage of rail movement of sugar and cotton manufactures to their total production. From the available information it is seen that even though the Railways continue to be by far the main carriers of the bulk of production of the basic and heavy industries like coal, ores, cement and iron and steel, the relative share of the Railways in the carriage of these commodities has appreciably come down. In the case of other commodities such as oil-seeds, raw cotton, salt and paper and paper boards etc., the percentage of rail movement is also steadily coming down from year to year. The Committee would like Railways to carry out a systematic analysis and take necessary measures to retain and increase their share in the transport of these commodities.
12	1·119	Rly.	The Committee take note of the work done by the Marketing and Sales Organisation through its various services and agencies. They would, however, suggest that through proper studies the economies of each service such as Container Service, Freight Forwarders Scheme, Super Express Goods Services, etc., should be evaluated so that necessary measures could be taken to improve the services and extend them in the interest of attracting more traffic to Railways.
13	1·136	Rly.	The Committee note that against 178 locomotives anticipated to be produced at Chittaranjan Locomotive Works in 1969-70 only 98 locomotives of different types were manufactured. Similarly in the Diesel Locomotive Works, Varanasi, only 82 locomotives were produced in 1969-70 against an anticipated production of 105 locomotives. The short fall in the production has been attributed to non-materialisation of anticipations in regard to supplies of raw

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			materials and components from local as well as foreign sources. In the case of DLW besides other extraneous factors, the release of foreign exchange for import of vital components was delayed, which necessitated slowing down of production. So far as supplies of raw materials and components are concerned, the Committee would urge better planning and advanced procurement so that these do not hold up production schedule. The Committee are perturbed to note the delay of 4 to 5 months in the release of foreign exchange for imports of components which affected adversely the production programme. The Committee desire that there should be better coordination and advanced planning to secure foreign exchange allocations in order to import in time the requisite components to sustain the production programme.
14	1·137	Rly.	The Committee feel that any shortfall in the targetted production which is always related to the installed capacity of a production unit, not only adds to the overall cost of production but also results in underutilisation of the installed capacity. As against the projected production of 325 locomotives during the period from 1966-67 to 1970-71, the actual production of only 216 locomotives at CLW during the same period would mean that a portion of the capital investment remained unutilised during this period. This could also in a way imply over-capitalisation with all its attendant disadvantages. The Committee would therefore like that all out efforts be made to ensure that the installed capacity of the production units is utilised to the optimum level.
15	1·138	Rly.	As regards the marked increase in 1969-70 when compared to 1968-69 in the cost of production of W.G. Steam locos and ACFT electric locos produced by CLW, the Committee are not convinced with the reasons given such as increase in the cost of labour and raw materials etc. which are common factors in all the production units. The natural inference therefore would be that because of shortfall in production the overhead expenses debitable to each unit actually produced got enhanced and hence the overall production cost has gone up. To that extent the contention that the shortfall in production has

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			not affected the absorption of overhead costs does not sound convincing.
16	1·139	Rly.	Another point on which the Committee would like to comment is that although the cost of production of locomotives or coaches may not be comparable to similar locomotives and coaches imported earlier, an attempt should be made to find out the ex-works cost of similar or comparable units being turned out by the collaborators in their own country as also the prices prevailing for comparable rolling stock turned out by leading manufacturers in the world.
17	1·140	Rly.	The Committee are confident that with sustained efforts it should be possible to bring down our costs further and thus improve our competitive position in the export market.
18	1·141	Rly.	The Committee would like that the comparative study of the performance of the diesel locomotives produced by DLW and electric locomotives produced by CLW *vis-a-vis* the imported locomotives should be completed at an early date so as to effect improvements in our locomotives.
19	1·142	Rly.	Concerted efforts should also be made to progressively increase the indigenous contents of the locomotives manufactured in CLW and DLW. There should be a time bound programme for developing manufacture of such components which are at present being imported, so that we can attain self-reliance at the earliest.
20	2·16	Rly.	The Committee note that the figures of surplus of locomotives as calculated by Audit are not being accepted by the Railway Board now and it was pleaded by the Chairman, Railway Board, during evidence that an opportunity might be given to give the correct figures. From the written note furnished to the Committee by the Railway Board it is observed that the figures in regard to requirement and surplus of locomotives during 1966-67 to 1968-69 have still not been furnished. The Committee would, therefore, like that the complete information indicating the method of calculation of locomotive holdings, requirements and surplus for all these years may be furnished duly vetted by Audit.

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21	2·17	Rly.	However, coming to the specific quesiton of locomotive holdings on the Railways, the Committee would like to emphasise that as the assessments of locomotive requirements made from time to time form the basis for their procurement in future, these calculations should always be based on realistic norms. The Railway Board should also evolve a satisfactory basis for future planning and acquisition of locomotives.
22	2·29	Rly.	The Committee regret to observe that the scheme for improvement of water supply at Suratgarh approved in 1959 could fructify only in 1971 i.e. after more than eleven years. The time taken in sanctioning the detailed estimates as also in starting the work was considerable. The Committee feel that delay at various stages could have been avoided with proper planning and coordination.
23	2·30	Rly.	It has been stated that the main cause for the non-completion of the work was delay in getting possession of the land from the State Government. This indicates that the question of acquisition of land was pursued by the Railway Administration with the State Government in a routine manner. If the matter had been taken up at the appropriate higher level, the land could have been acquired much earlier and delay in the completion of the work avoided. The Committee would like that the whole matter should be thoroughly investigated with a view to fixing responsibility for delay at different stages.
24	2·45	Ely.	The Committee note that a third goods terminal at Korukkupet in Madras was built at a cost of about Rs. 1·05 crores in December, 1965 on the ground that the aggregate traffic in Madras area would be about 240 wagons. The Committee, however, find that the total number of wagons handled in Madras area since 1965 have remained on an average less than 170 till 1970-71; it was only in the first six months of 1971-72 that there was an increase to 186 wagons on an average per day. The Committee also find that despite the construction of the third terminal goods shed, there has been no marked reduction in the average detention to wagons.
25	2·46	Rly.	The Committee note that the Railways are carrying out an evaluation of the facilities provided at Korukkupet

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			terminal goods shed. The Committee would be interested to know the findings.
26	2·47	Rly.	The Committee have no objection to development of adequate facilities for handling traffic (passenger or goods), particularly in metropolitan areas, provided these are fully justified on economic considerations. The Committee would like Railways to remember that any capital investment by way of provision for additional goods shed etc. carries obligation to pay dividend to the exchequer, and decision for investment, therefore, should be made after most careful consideration of all factors.
27	2·48	Rly.	The Committee note that the Railways have explained during evidence that the figures mentioned in the Audit Paragraph about the peak handling of wagons at Salt Cotaurs are inclusive of the coal loads meant for the Madras Electricity Siding and loco coal wagons for Basin Bridge Loco Shed etc. The Committee wish that the necessary clarification should have been given to Audit at the time the draft Audit Paragraph was received by the Railways. The Committee would like Railways to make sure that in future great care is taken in processing the draft Audit paragraphs and that all relevant facts are brought fully to the notice of Audit without delay.
28	2·63	Rly.	The Committee find that the decision taken in October, 1966 to continue use of diesels on the Sahibganj Loop which had been introduced as a temporary measure was based on the consideration that the cost of investment on the line capacity works required for haulage of the expected traffic by steam traction would be much more as compared to the expenditure involved in retaining the diesels on a permanent basis. It is however, seen that before taking a decision no realistic appraisal of the traffic requirements was made. The traffic projections made in 1964 in regard to the level of traffic on different sections of the loop in 1970-71 had remained unrealised. During the period 1964-65 to 1966-67 the traffic had remained more or less stationary and hence the augmentation of line capacity was not at all necessary. Had this aspect been taken into account it would have been realised that the traffic on the section could well be managed with steam traction without provision of any new line capacity works. As the Audit have pointed out that even upto 1969-70, most of the traffic in sec-

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			tions beyond Barharwa to Kiul was being managed mostly by steam traction. Although the Railway Board have not furnished details of traffic being hauled by steam and diesel traction separately it can be presumed that only few diesels are deployed on the section. The Railway Board have also accepted that "as a matter of policy, wherever possible on economic and operational grounds, more of steam traction than diesel should be used on Eastern Railway, than on sections of Southern and Western Railways."
29	2·64	Rly.	In view of the above, the Committee would recommend that the whole question may be re-examined with a view to find out whether the small portion of the traffic on the Sahibganj Loop being hauled by diesels cannot be managed with steam traction and also whether the diesels deployed on this section cannot more advantageously be pressed into service on other important sections of Railways where the diesel traction is more economical.
30	2·73	Rly.	The Committee regret to observe that the Chunar Yard remodelled at a cost of Rs. 28 lakhs, with a view to deal with the additional traffic anticipated to materialise, has now been found to be avoidable. The Committee cannot but deprecate the huge investment made on the remodelling work.
31	2·74	Rly.	The Committee recommend that as a matter of policy before deciding on a large investment on major yards the possibility of rationalising the operations at the connected yards, terminals etc., should be investigated in depth. Such an exercise should in fact form an essential part of the justification which should be critically gone into before according sanction.
32	2·75	Rly.	The Committee would also recommend that efforts should now be made to derive maximum benefit from the Chunar Yard by ensuring that it is put to optimum use.
33	3·17	Rly.	The Committee note that as the supplies of transformers from Heavy Electrical (India) Limited, Bhopal on whom orders for 118 transformers were placed between January 1965 and September, 1966 had not materialised to the extent promised, the Railway Board decided in November, 1967 to import 40 transformers to build a buffer stock and avoid any break in the production of

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			locomotives. It is seen that in the initial stages due to some teething troubles Heavy Electricals (India) Limited, Bhopal were not able to keep up the supplies as promised but from January, 1968 the supplies were more or less according to the schedule indicated by the Chairman and Managing Director of HEIL, Bhopal in his letter of 1st January, 1968. As against this the actual production of locomotives did not materialise according to anticipations. Against a target of 21 locomotives only 156 locomotives were turned out by CLW between 1967-68 to 1970-71. Thus although the decision to import transformers was based only upon the shortfall in the production of transformers the other equally important factor namely the production programme of locomotives which would determine the need for transformers was neglected. In the circumstances the supplies of transformers from Heavy Electrical (India) Limited, Bhopal would have proved adequate for the manufacturing programme of A.C. locomotives by C.L.W.
31	3·18	Rly.	The Committee are forced to the conclusion that there was a failure on the part of CLW/Railway Board (i) to make a realistic appraisal of the production targets of the A. C. locomotives, and (ii) to estimate the availability of transformers from indigenous source to match with their production programme. This resulted in an avoidable import of transformers costing Rs. 60·52 lakhs in foreign exchange besides an extra Rupee expenditure of Rs. 22·01 lakhs compared to the cost of indigenous transformers. The Committee would like the Railway Board/manufacturing units to take a lesson from this instance and ensure that machinery and equipment are imported from abroad only if these are required in the interest of sustaining a realistic manufacturing programme.
35	3·53	Rly.	The Committee are disappointed with the manner in which the case for indigenous development of an intricate signalling instrument namely token-less block instrument for single line was dealt with by the Railway Board. In the first instance it is seen that after the submission of the prototype of the instrument by thefirm on the 19th November, 1965, a firm contract was required to be placed on the firm within four months i.e. by 18th March, 1966. Even though the

1	2	3	4
			tests on the prototype were completed in February, 1966, the Railway Board failed to place the order on the firm by the due date or to seek extension of time or to communicate with the firm about the modifications suggested in the prototype. As admitted by the representative of the Railway Board during evidence this was a serious lapse for which the Committee would like the responsibility to be fixed.
36	3·54	Rly.	Secondly there is no indication that after the firm refused to accept the contract any negotiations were held with them about the price and other terms and conditions in order to resolve the matter. The discussions held with the firm on 24-6-66 and 27-6-66 only attempted to convey to the firm, "the consequences of not accepting the price and other terms." In the context of devaluation and increase in the prices which were known to Railway Board it was only reasonable that the matter should have been fully gone into. The haste with which new tender was floated on 14-7-66 only indicates that the Railway Board did not care to negotiate with the firm who according to them had shown an "unbusiness-like attitude."
37	3·55	Rly.	Thirdly when the same firm made a fresh offer in response to the new tenders floated on 14-7-66, it was not considered because this was not the lowest. However, while accepting the lowest offer from another firm, the Railway Board overlooked certain important points. These were:— (*i*) No proper investigation into the capability of the firm whose offer was the lowest, was made. This was of particular importance because the Railway Board were well aware that the instrument was a complicated one and the previous firm had taken about two years to produce an acceptable prototype. (*ii*) The price quoted by the firm whose offer was accepted was not realistic in the context of other offers received. The Railway Board have admitted that between 1964 and 1966 the extent of price increase ranged between 20% to 139%. It would also be pertinent to mention that the firm in question (whose offer was not considered) while offering a reduction in the price quoted by them earlier suggested to the Railway Board to fix the price taking into consideration the cost of production and a permissible profit.

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38	3·56	Rly.	From the foregoing the Committee are led to the conclusion that the case has not been handled in the best interest of Government. Had the Railway Board considered the realities of the situation they would have entered into meaningful negotiations with the defaulting firm, whose merits they fully realised, and arrived at mutually acceptable terms. Their failure to do so has cost the exchequer some valuable foreign exchange and the indigenous development of the instrument has also suffered a set-back. The Committee would like the Railway Board to ensure, that the present and anticipated requirements of Railways for tokenless instruments are fully met by indigenous services and at most competitive prices. The Committee would like to be informed of the actual progress made in this behalf.
39	3·93	Rly.	The Committee are distressed to note that following a spate of fractures on the imported rails laid on the Northeast Frontier Railway, all the rails had to be replaced within a period of 10 to 12 years against the normal code life of 60 years. The premature replacement has cost about Rs. 1 crore.
40	3·94	Rly.	From the available material it is noticed that despite several enquiries at different stages it has not been possible to fix the responsibility on the manufacturers for manufacturing defects. This is partly due to the fact that because of the divergent views about the causes of fractures given by the Chemist and Metallurgist, North Eastern Railway, Joint Director (Chemical and Metallurgical) Chittaranjan and RDSO, no firm conclusions were drawn well in time. The Committee regret that the Railway Board failed to make any conclusive investigations into the real causes of the fractures noticed on the North Eastern Railway during 1961. In view of the conflicting views held by the experts about the causes of the fractures it was only appropriate that detailed investigations should have been ordered to establish whether the defects could be attributed to deficiencies in manufacture. At this stage the Committee can only deplore the manner in which the matter was gone into which ultimately led to a loss of a crore of rupees on account of premature replacement of rails besides carrying

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			with it serious risk of loss of life and property before the defective rails were replaced.
41	3·95	Rly.	The Committee would like the Railway Board to carefully analyse the case and evolve a procedure by which cases of premature failure of rails are thoroughly investigated so as to take timely action against suppliers.
42	3·127	Rly.	The Committee regret to observe that though the Railway Board initiated action in 1964 for procurement of concrete sleepers by inviting global tenders, drawings and specifications for the inserts which were to be cast along with concrete sleepers were finalised only in October, 1967. The two firms 'A' and 'B' on whom orders for supply of 4 lakh inserts were placed in May, 1968 and who were required to complete the supplies by April, 1969 could commence their production only after July, 1969 when the modifications in the specifications of the inserts were finalised with the help of Research, Design and Standards Organisation.
43	3·128	Rly.	It is seen that at the time of first tender out of the 27 firms in the country who tendered and who were known to possess capacity for manufacture of these fittings only 2 firms 'A' and 'B' could be selected for placing orders for production of inserts and in the second tender opened in April, 1969 out of the 18 firms which tendered, the sample of only one firm, viz. firm 'A' on whom orders had already been placed on the basis of earlier tender, was found satisfactory. This only indicates that the item was difficult to manufacture and hence there was need for advance planning.
44	3·129	Rly.	During evidence the Chairman, Railway Board stated that the possibility of getting these inserts manufactured departmentally was explored but in the absence of advance planning and provision of connected equipments it was not found possible to meet the urgent needs and therefore they agreed to the price increases asked for by the two firms even though they had not kept up the delivery schedule. The Committee find that in view of the developmental difficulties the production of concrete sleepers had not yet picked up. In fact, against an expected production of 20,000 sleepers by December, 1969 only 3,942 sleepers were actually produced. In view of the very slow progress in the manufacture of concrete sleepers, the element of urgency

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			pleaded for the increase in the rates allowed to the two firms does not look very convincing. Had a realistic assessment of the requirements of inserts been made the additional order for 3 lakh inserts placed on the firm 'A' after agreeing to the enhanced rates could have been postponed. The Committee would like the Railways to learn a lesson from this lapse and ensure that such instances do not occur.
45	3·141	Rly.	The Committee are unhappy to observe that in complete disregard of Section 480 of the Railway Code, an unusual condition specified by the tenderer in his offer for purchase of scrap was accepted without adequate scrutiny. Besides this, no formal agreement providing for essential safeguards like sale at the risk and cost of the contractor in the event of default by the contractor was executed. During evidence the Chairman, Railway Board admitted that there was a lapse in this case and promised to institute an enquiry into the whole affair. The Committee are informed that an enquiry committee has since been constituted. The Committee would like to be apprised at an early date of the action taken for fixing responsibility on the basis of the findings of the enquiry committee.
46	4·45	Rly.	The Committee regret to observe that prior to placement of import orders for mobile flash butt welding sets in May, 1962 detailed investigations were not made by the Railway Board to find out whether mobile plants with their own generating sets or fixed plants which could be fed with outside power would be more suitable for their requirements. The desirability of importing the welding sets without power equipment was brought to the notice of the Railway Board both by the suppliers of the equipment and the Eastern Railway Administration well before the placement of order and even otherwise the Railways had previous experience of working both mobile as well as stationary type of welding plants but still it was decided to go in for mobile units with power equipment. It is further seen that in February, 1963 the Railway Board issued instructions to keep the mobile units mounted on stagings instead of on special wagons as it was felt that the plants would not require frequent shifting. Following this decision the South Eastern Railway Administration was allowed to run the imported mobile

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			plant as stationary unit fed with power from the State Electricity Board. The policy of ordering mobile units was, however, not subjected to a review nor were any instructions given to Western & Southern Railways who were yet to receive the imported plants, about the desirability of working the plants with direct power.
47	4·46	Rly.	The Committee further note that in the periodical meetings of the Railway welding plant engineers held in September, 1963 and May, 1964, the question of savings anticipated in running the welding plants with power obtained from outside source of supply was considered and brought to the notice of the Railway Board through the minutes of the meetings. Despite this the Railway Board did not make any change in the order for the further three sets placed in April, 1964. A final decision about keeping all the welding plants stationary was, however, taken in August, 1967 after the report of a French Expert who visited all the Flash Butt welding plants on the Indian Railways. The Committee feel that if the Railway Board were not inclined to rely on their own past experience it would have been much better to have the opinion of an expert well before the decision to import 6 mobile units was taken.
48	4·47	Rly.	The delay in taking a decision for keeping the welding plants stationary to be fed with direct power from outside source not only resulted in the avoidable import of power generating units attached to the welding plants but also enhanced the cost of welding which was cheaper to the extent of Rs. 5 to 6 per joint if power was obtained from outside source of supply.
49	4·48	Rly.	The Committee also feel that the time taken for installing and commissioning the plants was excessive in many cases. Although, on the Western Railway the plant was commissioned within a period of about 9 months yet on other Railways it took a very long time ranging between 1½ years to nearly 4 years. Besides this there was abnormal delay in taking the question of power supply with the respective State Electricity Boards. For example on Southern Railway the plant was commissioned in August, 1965 but the correspondence to obtain power from the State Electricity Board was initiated on 18-6-70 i.e. after about 5 years

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50	4·91	Rly.	The Committee note that as a matter of deliberate policy the Railways have been gradually reducing the use of non-durable wooden sleepers. This has resulted in a lesser off take of raw sleepers by the Railways from the available sources such as state forests and consequently the four sleeper treatment plants of the Railways established at a cost of Rs. 88·49 lakhs are not being utilised to the maximum extent possible. Because of under-utilisation of the plants the cost of treatment of sleepers per cubic metre has risen from Rs. 47·00 in 1964-65 to Rs. 78·00 in 1968-69.
51	4·92	Rly.	According to the Railway Board whereas the wooden sleepers of durable type are considered as satisfying all the technical requirements of sleepers and as most suitable for the track, the non-durable sleepers do not give satisfactory service and are comparatively expensive because of their short life. The assessment of short service life of treated sleepers made by the Railway Board has been disputed by the principal State Forest Officers and the Forest Research Institute.
52	4·93	Rly.	During evidence the Committee were apprised that because of better maintenance technique followed and differences in conditions in foreign countries the non-durable sleepers after treatment gave good service for long time. It was also brought to the notice of the Committee by the Inspector General of Forests Government of India that because of the policy of Railway Board the State Forests were facing a shrinkage in the demand of non-durable wooden sleepers.
53	1·94	Rly.	In view of the above the Committee feel that there is need for reappraisal of the Railways' policy in regard to use of non-durable wooden sleepers. The Committee are informed that the Railway Board have set up an expert Committee to go into the entire questions The Committee hope that a suitable policy will be evolved a a result of the Expert Committee's deliberations. They would like to be apprised of the decisions taken in due course.
54	5·11	Rly.	The Committee note that during 1970-71 the Railways spent Rs. 58 lakhs on various projects connected with metropolitan transport. The Committee desire that a decision should soon be taken i consultation with

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			Audit, if necessary, as to how the expenditure in connection with the Metropolitan Transport Projects is to be shown in the final accounts of the Railways concerned.
55	5·12	Rly.	The Committee attach great importance to development of adequate transport facilities in metropolitan areas and would like Government to give highest priority to drawing up and implementing integrated plans for meeting the transport requirements of common man in these densely populated areas.
56	5·31	Rly.	From the chronological sequence of the various orders passed and the action taken by the Railway Board and the Western Railway the Committee find that the time taken in arriving at certain decisions was unduly long. For example the first reference from the Western Railway recommending further reduction in the concession rate was issued on 4-5-65 while a decision of the Railway Board on this was communicated to the Western Railway on 4-11-66 *i.e.* exactly after 1½ years. Similarly on another letter sent by the Western Railway on 16-9-67 in which it had been pleaded that there was no case for further reduction in the concession rate because of change in circumstances, the Railway Board could finalise their decision on 16-5-70 *i. e.* after a lapse of 2½ years. Again a proposal regarding complete withdrawal of concession made by the Western Railway on 14-8-70 was agreed to by the Railway Board on 1-6-71 *i.e.* after a period of more than nine months. This does not speak well of a commercial organisation like the Railways. Since any delay in taking a decision has its financial implications, the Committee need hardly emphasize that decisions should be taken without any avoidable loss of time. As has been pointed out by Audit the special concessional rate of Rs. 4·30 per tonne levied during the period from September, 1967 to June, 1970 (when the matter remained under consideration) but withdrawn thereafter had resulted in loss of revenue to the extent of Rs. 5·85 lakhs. The Committee takes a serious note of this and would like to recommend that suitable instructions be issued to all concerned to abviate recurrence of such cases.
57	5·32	Rly.	The Committee are also unhappy about the serious procedural lapses at various stages that have come to

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			their notice. In this connection they would like to point out that although the representative of the firm had met the Minister on 20-10-66 and the Joint Director (Rates) was present at the meeting the latter recorded a note relating to the meeting on 19-6-67 after eight months. The Chairman, Railway Board admitted that this was a procedural lapse. The Committee would like that the officer concerned should be asked to give an explanation for this omission and appropriate action should be taken. Suitable instructions should also be issued to avoid recurrence of such omissions.
58	5·47	Rly.	The Committee note that as a result of the recommendations made by them in para 11 of their 40th Report (Second Lok Sabha) and in Para 95 of the First Report (Third Lok Sabha) the number of works sanctioned under urgency certificates has been considerably brought down from year to year. The Committee desire that Railway Board should exercise utmost care before sanctioning works under emergency provisions. As a rule only small works of really emergent nature should be sanctioned under urgency certificates. The Committee feel that under no circumstances huge works costing crores of rupees and requiring years for completion should be sanctioned under urgency certificate unless the Board is otherwise satisfied that the work is really urgent. Even in such cases estimates should be finalised on urgent basis and no expenditure should be incurred before the estimates are properly sanctioned.
			General
59	5·48	Rly.	The Committee have not made recommendations/observations in respect of some of the paragraphs of the Report of the Comptroller & Auditor General of India for the year 1969-70—Central Government (Railways). They expect that the Ministry of Railways (Railway Board) will take note of the contents of the other paragraphs dealt with in the Audit Report and take suitable remedial action in consultation with audit where necessary.

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