ADVANCE REPORT

OF

THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

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THE YEAR 1982-83

UNION GOVERNMENT (RAILWAYS)

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PREFATORY REMARKS

This Report has been prepared pending submission of the Appropriation Accounts of the Union Government (Railways) for the year 1982-83. The Appropriation Accounts of the Union Government (Railways) for the year 1982-83 are under preparation/finalisation by the Ministry of Railways (Railway Board). Since their submission is likely to take a little more time, this Advance Report is being submitted.

2. This Report relates mainly to points arising from test audit of the financial transactions of the Railways and includes, among others, reviews on Compensation claims, Commodity freighting on the Indian Railways, Bhadrachalam Road—Manuguru Railway Project, Metro Railway—Electrification of Ring Railway, Delhi, Track renewals, Rehabilitation of Railway bridges, review of foundries of Jamalpur Workshop, Import of wheelsets, Plant and Machinery, Contract management and Land management in Railways.

3. The points brought out in this Report are not intended to convey or to be understood as conveying any general reflection on financial administration by the Ministry of Railways (Railway Board).

CHAPTER I

COMPENSATION CLAIMS AND COMMODITY FREIGHTING

1. Review on compensation claims

1.1 In terms of the provisions of the Indian Railway Act, 1890, as amended in 1962, the Railways as carriers, are responsible for loss, damage or deterioration of goods in transit arising from any cause except those* specified in the Act.

1.2 Details of such claims for compensation for loss and damage preferred and accepted vis-a-vis traffic earnings in 1972-73 and for the last six years were as under :

Year	Traffic		Claims		Percentage of claims accepted against claims preferred	Value of claims accepted (Rs. in crores)	Percentage of value of claims paid on earnings
	Tonnage (in millions)	Earnings (Rs. in crores)	Preferred (Nos. in lakh)	Accepted			
1972-73	175	786	7.1	3.2	45	12.3	1.56
1977-78	211	1407	4.6	1.8	39	14.3	0.93
1978-79	200	1397	5.4	1.9	35	12.3	0.88
1979-80	193	1440	5.7	1.7	30	11.5	0.75
1980-81	196	1733	7.0	1.9	27	14.0	0.81
1981-82	221	2486	7.4	2.0	27	19.9	0.80
1982-83	228	3132	6.5	1.7	26	21.9	0.70

1.3 In 1972-73, the Public Accounts Committee (PAC)** had called upon the Ministry of Railways (Railway Board) to make all out efforts to reduce the loss and damage claims and keep a special watch on theft of sensitive (high rated) goods. The PAC had also commented** that payment of such claims in

*Losses due to act of God, war, public enemies, omission or negligence of the consignor/consignee, etc.

**Para 1.72 PAC'S of 77th Report V Lok Sabha.

some of the foreign railways—Japanese National and German Federal Railways—were only 0.06 and 0.26 per cent of the traffic earnings. The Ministry of Railways (Railway Board) undertook the following measures from 1973-74 to combat the incidence of claims :

- Condemnation of derelict wagons and acquisition of new stock, specially covered, in greater proportion on replacement account.
- Provision of facilities for patch repair of panels of body cut wagons in sick lines and workshops.
- Despatch of vulnerable commodities like grains and pulses in block rakes under armed escorts.
- Provision of dunnage and packing according to tariff specification to prevent theft and pilferage through flap doors.
- Greater emphasis was laid on proper documentation, sealing, marking, loading|unloading of wagons according to schedule, specially in case of perishables, to avoid memo deliveries, mixing up and overcarriage of consignments.
- Guaranteed transit time for intercity movement of parcels using available spare capacity in the luggage vans of super fast express trains.
- Augmentation of Railway Protection Force from 1973 to provide for better supervision and patrolling duties.
- Reorganisation of the existing claims prevention and disposal cell of the commercial department into a separate department under a Chief Claims Officer to devise preventive measures, analyse claims data in greater detail, to pin-point the area of loss for remedial action, and prompt fixation of staff responsibility.

1.4 Apart from the above, the Railway operations were further streamlined in recent years (1977-78 to 1981-82) with increased running of block specials with lesser detention to wagon loads in inter-mediate yards and reduced chances of tampering and damage.

1.5 34,358 derelict wagons were replaced and 34,663 wagons were added i.e. in all 69021 wagons, at a cost of Rs. 612.45 crores during 1977-78 to 1981-82. In March 1980*, the Public

*Page 4 of 103rd Report of the PAC, Seventh Lok Sabha.

Accounts Committee was also advised that for the traffic requiring use of covered wagons (i.e. vulnerable commodities like food grains, fertilisers, cement and other high rated goods), the Railways had covered wagons to the extent of 54 per cent of total wagon holding.

1.6 The staff strength and expenditure of the security (RPF) and the claims department (CCO) were expanded between 1977-78 and 1981-82 as under :

	Staff strength*			Expenditure		
	(Numbers)			(Rs. in lakhs)		
	1977-78	1981-82	Percentage increase	1977-78	1981-82	Percentage increase
RPF	54272	59413	9.5	26.96	48.45	80
CCO	4503	5416	20	4.91	9.20	88

1.7 Despite all these measues, the value of claims preferred and accepted had been on the increase specially after 1977-78. The number of claims preferred for loss and damage had increased from 4.6 lakhs to 7.4 lakhs between 1977-78 and 1981-82. In absolute terms the value of claims accepted, Rs. 14.3 crores in 1977-78 increased to Rs. 19.9 crores in 1981-82. Though the percentage of compensation paid out of earnings has remained at 0.9 to 0.8 per cent which is itself a high rate, this is partly attributable to the fact that the rate of rejection of claims had substantially increased. The percentage of claims accepted against claims preferred has come down from 45 per cent in 1972-73 to 26 per cent in 1982-83.

1.8 A further analysis of the percentage of compensation paid to the revenues earned viz., 0.8 per cent indicated that it consists of 2 major components viz :

(i) Claims paid on transport of bulk commodities such as coal and coke, mineral oil, grains and pulses, industrial raw-materials, lime stones, etc. which constitute 80 per cent of the earnings of the railways accounting for 0.4 per cent.

(ii) The remaining 0.4 per cent is in respect of 'balance other goods' which constitute 20 per cent of the total earnings from high profit yielding commodities (tea,

*Staff statement annexure to Budget Demand No. 12 of relevant years.

leather goods, jute, oil seeds, edible oils, spices, piece goods, medicines, motor cars and parts and parcel traffic).

Incidence of claims in respect of "balance other goods" was in the range of 3.4 per cent to 69.5 per cent of their earnings during the year 1981-82, as indicated in the table that follows :*

	Amount of claims paid (Rs. in lakhs)	Traffic earnings	Percentage
1. Parcel traffic	233.00	7418	3.4
2. Tea	13.43	226	5.9
3. Leather goods	15.19	37	41
4. Jute	18.48	485	4
5. Oil seeds	82.22	1308	6.3
6. Edible oils	43.77	1325	3.3
7. Spices	20.90	293	7.1
8. Piece goods	43.99	350	12.5
9. Medicines	5.08	28	18
10. Motor cars, tractor parts	9.72	14	69.5

1.9 The number and amount of claims paid for loss of vulnerable commodities like grains and pulses, fresh fruits and vegetables, coal and coke had increased as under :

	Number of claims accepted			Amount paid		
	1977-78	1981-82	Percentage increase over column 1	1977-78	1981-82	Percentage increase over column 4
	(No. in lakhs)			(Rs. in lakhs)		
	1	2	3	4	5	6
1. Grains and pulses	35374	33734	—	240	429	79
2. Fresh fruits and other perishables	41043	71554	74	99	238	141
3. Coal and coke	5062	7113	41	165	384	132

1.10 Though the Railway Administration has been incurring increasingly higher expenditure between 1977-78 and 1981-82 to

*Comparable figures for the years 1977-78 to 1980-81 are given in Annexure-I.

strengthen the protection force (expenditure increased from Rs. 26.96 crores to Rs. 48.45 crores), to streamline the traffic management (Rs. 4.91 crores to Rs. 9.20 crores on claims department alone) and to replace defective, derelict and overaged wagons (69021 wagons added at a cost of Rs. 612 crores), the percentage of compensation payments to earnings have registered large increase in the areas of parcel and high value commodities. This has affected confidence of the customers and has led to reduction in the movement of high value goods by the Railways.

1.11 The claims** settled were attributed to :

— 'Complete loss of packages' and 'pilferage' (69 per cent) of the total claims.

— Damage by wet (22 per cent).

— Delay in transit, mainly in case of parcel traffic and quick transit service (6 per cent) and other causes (3 per cent).

1.12 (a) *Complete loss of packages including loss of wagon load consignments*

During 1981-82, compensation was paid in 68,109 cases (for Rs. 690 lakhs) against 48,083 cases (for Rs. 453 lakhs) in 1977-78, thus registering an increase of 42 per cent in five years. The main commodities affected were fresh fruits, vegetables and other perishables, grains and pulses, oil seeds and coal and coke. There were failures of the commercial staff at the booking and enroute stations to ensure 'Pack, Label, Mark' care and to observe the prescribed rules viz., check the contents, seals of wagons, etc.

(b) *Failure to provide escort and enroute inspection of food specials*

Instructions to provide RPF escorts to food specials of Food Corporation of India (FCI) in covered or open Box wagons, (covered by tarpaulins) moving from the loading stations of Northern Railway, and to inspect the tarpaulin covers on the wagons enroute, were issued by the Railway Board in 1969 and 1977. However, due to non provision of escort by adjacent Railways and lack of proper inspection enroute by the Security and Commercial Departments, the wagons were received with seals tampered or tarpaulins disturbed with shortage of full bags at the

**Details of Railway-wise claims under various causes are furnished in Annexure-II

destination stations on Southern, Central, Eastern and Western Railways. There were 1023 claims for complete and partial shortage of grains and pulses settled for Rs. 17.36 lakhs during 1981-82.

(c) *Failures to trace missing wagons*

In case of missing wagons with food grains of Public or the FCI, the claims are settled by linking similar unconnected wagon loads where such unconnected wagon loads could not be traced, compensation was paid for non-delivery. During 1981-82, 2,580 such cases (of grains wagons of Public) involving payment of compensation for Rs. 41.12 lakhs for non-delivery were settled (against 1719 cases for Rs. 20.98 lakhs in 1977-78).

According to the records of the FCI, the total number of their missing wagons since 1969 was 5,830. The total number of their wagons traced and linked by the Railways so far (March 1983) was 4,337 leaving a balance of 1,493. In their accounts for 1981-82, an amount of Rs. 67.23 lakhs was shown by FCI as due from Railways on account of claims of missing wagons. However, according to the report of Southern Railway Administration to the Railway Board in June 1983, against the outstanding number, 1,493 missing wagons as on 31st March 1983, the FCI had been delivered 3,265 unconnected food grain wagons in excess, valued at Rs. 7.1 crores.

Expeditious action is called for to ascertain the details of wagons delivered in excess to the FCI with a view to setting them against compensation for missing wagons claimed by them.

(d) *Coal and coke*

The claims paid (Rs. 3.85 crores) in 1981-82* were mainly for non-delivery of full wagon loads of public coal diverted to Power Houses and Railway Locosheds after ascertaining proof of delivery. Owing to the failure of the Operating Department in planning the movement of coal rakes according to the coal linkage programme, number of diversions of public coal wagons increased from 2795 in 1977-78 to 6410 in 1981-82.

Transit losses of coal had also been on the increase between 1977-78 and 1981-82 due to failure of the Commercial Department to ensure correct weighment and of the RPF to control theft in Railway yards, locosheds, etc.

*7113 cases were settled in 1981-82 against only 5062 cases settled in 1977-78.

The transit loss due to pilferage etc., of loco coal (carried for railways own consumption) was assessed by the Railways as 2.33 per cent (2.65 lakh tonnes) in 1977-78 and 4.85 per cent (5.08 lakh tonnes) in 1981-82. The loss of coal in transit carried for public had increased more or less in the same proportion from 16.1 lakh tonnes in 1977-78 to 39.91 lakh tonnes in 1981-82. The extent of this loss to the public needs to be arrested.

(e) *Complete loss of Gold articles*

A case of loss of gold parcel occurred on Central Railway due to theft while under custody of Guard in parcel van of Mail train on 26th April 1983. The consignor, State Bank of India, had declared the net weight of gold as 5 kg. and its value as Rs. 14.8 lakhs but had not insured the parcel. Though adequate notice was given by them about the intended booking, the Commercial and Security Departments failed to make arrangement to escort the parcel van as required under the rules.

The settlement of the claim of State Bank of India and fixation of responsibility and other remedial action to avoid recurrence of such thefts in train are under investigation by the Railway Administration.

1.13 *Pilferage*

Despite expansion of RPF and extra vigilance and patrolling activities, claims paid due to pilferage had remained almost constant during all these years, the number of such cases was 82,936 in 1977-78 and 82,426 in 1981-82.

Pilferages mainly occur when wagon loads remain unconnected or suffer detention enroute, through the door crevices due to defective doors of wagons, by cutting the panel of covered wagons by miscreants and from the custody of guards and road van clerks owing to non-observance of instructions to lock brake-vans, inadequate watching by the security staff, etc*

The tractor consignments despatched in block rakes from Madras to Northern Railway destinations were escorted by the RPF only for part of their journey due to lack of coordination between the Security Departments of adjacent Railways as noticed

*27240 such cases of pilferage (through body holes, door crevices, etc.) were reported in 1981-82 against 17516 cases in 1977-78 as seen in audit from the detailed analysis into the causes of pilferage on Central, Eastern, Southern, South Central and South Eastern Railways.

in case of food specials moving from Northern Railway. This resulted in pilferage of detachable parts and payment of compensation for Rs. 21.32 lahks in 1980-81 and 1981-82.

1.14 *Claims arising from damage by wet : Failure of the Mechanical and Commercial Departments*

In 1981-82, the Railways had paid compensation amounting to Rs. 3.68 crores in 27,988 cases due to supply of non water tight (NWT) wagons at the loading, transhipment and repacking stations. Out of the above, claims for damage by wet to grains and pulses (14106 cases, value of claim paid Rs. 1.98 crores) had a lions share.

A test check at Royapuram (Madras) by the train examiners of Southern Railway during July to September 1981 showed that out of 1,586 covered wagons loaded with grains and pulses, 1,199 were found as NWT wagons.

This indicates that there were recurring failures of Mechanical Department to follow the prescribed maintenance practices in the sick lines and transportation sheds, such as :

— application of roofing compound to wagons with leaky roof, and

— repairs to wagons with defective door, proper welding and revitting of wagons with cotters, etc.

The mechanical department of the Railways had also failed to utilise fully the panel patching facilities created in the sick lines and workshops. Against the capacity of 25,500 wagons per month, the actual outturn was around 10,851 in 1982 which meant a capacity utilisation of only 45 per cent. This resulted in continued circulation of panel cut, body hole wagons.

There were heavy arrears in the POH* of wagons, the percentage of wagons overdue POH had risen from 9.22 (BG wagons) and 8.52 (MG wagons) in 1977-78 to 25(BG) and 17(MG) in 1981-82. The Commercial Department had failed to segregate such defective overdue POH wagons and reject them for loading, leading to loading of commodities in defective and leaky wagons.

Investment in wagons of Rs. 612.45 crores referred to in the preceeding para No. 1.5 had thus not proved fully productive due to the above failures of Mechanical Department.

*POH—Periodical over haul.

1.15 *Major operational failures leading to increase in claims for compensation*

(a) *Unconnected wagons*

Wagons get unconnected at the marshalling yards and transhipment points owing to recurring failures of the staff of the Operating Department to observe the following prescribed rules and procedure :

(i) Non-marking of the goods, non-provision of paste on labels on wagons at the loading, repacking|transhipment points.

(ii) Non-despatch of transit invoice with the consignments.

(iii) Failure to record full particulars of repacked|transhipped contents on the seal card of wagons.

(iv) Non issue of transhipment advices for wagons becoming sick enroute.

(v) Non-submission of fortnightly statements of unconnected wagon load consignments and under statement of the number of such wagons to Railway Headquarters and to Railway Board for circulation to other Railways for tracing and despatching to correct destination.

Mismarshalling and irregular shunting in marshalling yards further aggravate the claims position by causing transit delay and making wagons unconnected beyond a certain point.

According to fortnightly data circulated by the Railways and Railway Board, the incidence of such wagons remaining unconnected were on the increase between 1977 and 1982 as seen below:

Railway	Number of unconnected wagons on any day at the end of month in		Contents in such wagons
	1977	1982	
Central	37	76	Grains and pulses, cement, chemical manure, iron and steel, stones, timber etc.
Eastern	37	56	
Northern	20	33	
Southern	69	66	
Western	74	113	
Total	237	344	

The above data is circulated after an interval of over a month to the Railways by the Railway Board and is used by the claim offices only when a claim is received. The accuracy of this data can not also be vouchsafed as seen from a test check on Central and Southern Railways; on the Central Railway many of the important stations do not send such fortnightly statemens of unconnected wagons to their headquarters; on Southern Railway while the number of unconnected loads intimated by the stations to Railway Headquarters was 131 for October 1982, the number circulated to other Railways and to the Railway Board was 62.

Besides pilferage through flap doors, etc. contents of unlinked wagons get auctioned elsewhere at low prices on other Railways also. Instances of such cases were mentioned in para 36 of Report of Comptroller and Auditor General of India—Union Government (Railways) 1978-79 and also noticed recently* on the South Eastern and Southern Railways.

(b) *Transhipment points*

At many@ transhipment points damage to consignments occur due to loading in defective wagons, non-observance of monsoon precautions, provision of non-standard dunnage, etc. There was no system of certification of wagons by train examiner before loading of consignments like sugar, fireworks, matches, etc.

(c) *Delay in transit*

Delay in transit and consequent deterioration of consignments was another major factor acounting for the increase in claim cases in 1981-82. The number of claim cases paid by the Railways due to delay in transit increased from 6845 (value Rs. 36 lakhs) in 1977-78 to 12398 (value Rs. 58 lakhs) in 1981-82. The commodities affected were fresh fruits, vegetables and other perishables such as fish, eggs, etc. which are mainly booked as parcel traffic, in parcel vans attached to mail and express trains or in parcel express, quick transit service (QTS) goods train run between important cities.

Rules and procedure for perishables, fruits, vegetables and high rated traffic, whether booked as parcel or smalls or in

*Details in Annexure-III.

@As noticed from a test check in audit at Baiyyappanahalli, Tiruchchirappalli and Royapuram on Southern Railway.

wagon load as goods traffic prescribe that such wagons should be distinctly labelled and a "push on message" issued by booking station to the junctions enroute and that the parcel way bill should invariably accompany the goods.

There were, however, series of operational failures impeding the movement of such traffic according to schedule as detailed below :—

(i) Overcarriage of parcels**. During 1981-82, the number of such overcarried parcels on Southern Railway alone was 7,236.

(ii) Non-despatch of parcel way bills.

(iii) Non-adherence to the prescribed transit time, non-maintenance of schedule of parcel|QTS trains.

(iv) Less procurement of parcel vans on replacement account resulting in less availability of such vans for parcel traffic.

(v) While there is shortage of vans for loading parcel traffic, a substantial number of available parcel vans| wagons (822 vans in 1981-82) were allotted for loading by freight forwarders at concessional rates resulting in recurring loss of earnings.*

(vi) The luggage|brake vans (LR, SLR, VP) attached to the Rajdhani and other intercity super fast express trains invariably run underloaded due to passengers' habit of not depositing their heavy luggage in brake vans. A test check in audit in August, 1983, revealed that the second cubicle of 15.2 tonne capacity in each of the three luggage brake vans of the Rajdhani express running between New Delhi—Bombay and New Delhi—Howrah invariably run empty despite considerable traffic in fresh fruits and perishable items.***

*Loss estimated by Audit at Rs. 2 lakhs for Southern Railway and Northern Railway in 1981-82.

**A few cases of overcarriage of parcels resulting in more compensation cases are furnished in the Annexure-IV.

***Financial implications of these brake vans running empty is estimated in audit as Rs.3.91 lakhs per month.

1.16 *Failure of Railway Protection Force—the Security Department*

Despite the expansion in the strength of RPF from 54272 in 1977-78 to 59413 in 1981-82 i.e., increase of 9.5 per cent, there was decline in the activities of the RPF as seen from a sample study of their schedule duties on Northern Railway detailed below :

	1977-78	1981-82
1. No. of train escorted	2680	1959
2. Patrol parties deployed	415	169
3. Pickets arranged	62	22

Similar trend was noticed on other Railways also resulting in discontinuance of arrangements for escorting food specials, tractor consignments, inadequate security arrangements in goods sheds, etc. reported in earlier paragraphs.

The expansion of RPF strength by 9.5 per cent referred to above had not resulted in any improvement in the area of claim prevention. There was a steep increase in the number of complete loss and pilferage cases registered for investigation by them from 37585 in 1977-78 to 62367 in 1981-82 (i.e. 66 per cent).

While the number of complete loss and pilferage cases registered for investigation according to RPF was 62,367 in 1981-82, the number of such claims accepted by the Railways were 1,50,605 which indicate that many cases of consignments lost from seal intact wagons and pilferage from the custody of guard|road van clerks were not reported to the RPF for their investigation by the Commercial Department. The Security and Commercial Departments had failed to coordinate their activities to combat the claims cases.

1.17 *Failure of the claims department and inadequate fixation of staff responsibility*

Despite re-organisation of the claims office into a separate department and increase in their staff strength (20 per cent

between 1977-78 and 1981-82), the claims organisaion had failed to arrest the increasing trend of claims owing to the following reasons :—

(i) The Claims Department do not have powers to penalise the staff involved directly. Lapses of staff noticed by them are reported to the concerned department (Commercial, Operating and Mechanical). Due to lack of same zeal and effort, the other departments take action against the staff at fault belatedly and ineffectively.

(ii) The Security Department is neither associated with their investigation nor consulted in system improvement measures.

(iii) 75 per cent of the claims received and settled by each Railway related to through traffic and hence the responsibility for the loss and damage, is to be fixed by other railways. There is considerable time lag in reporting such cases and initiating action to fix staff responsibility.

(iv) The claims department also conduct monthly detailed analysis of the losses sustained in respect of 35 selected commodities separately for local and foreign* traffic to bring out areas of occurrence of loss with a view to pin point lapses of the Railway staff and for rationalising Railway operations. This analysis does not bring out data regarding parcel and goods traffic separately, though claims paid on parcel traffic take a toll of 3 to 5 per cent of the parcel earnings every year.

On the Northern, North Eastern and Northeast Frontier Railways, 90 to 99 per cent of the claims paid under 'complete loss of packages' and pilferage were not analysed in detail but shown under 'unlocated causes' leaving thereby very little scope for remedial action. The other Railways carry out more detailed analysis regarding areas of occurrence of losses for about 27 per cent (Western Railway) to 73 per cent

*Foreign (Through) traffic -inter-railway traffic.

(South Central Railway) of the cases of total loss, indicating separately commodity wise, losses reported from seal intact and seal tampered covered or open wagons at the forwarding, repacking, transhipment, enroute stations and from the custody of Guards. But this analysis was used by them only for compilation of statistics and not used for fixing staff responsibility and taking remedial action to remove any operational bottlenecks. Consequently staff responsibility for the lapses had been fixed only in small number of cases as detailed below for 1982 :—

Railway	Claims paid (Number)	Total No. of staff found responsible and punished	Number of staff punished for claims paid (Ratio of Col 2 to 3)
Central	29724	87	342 : 1
Eastern	41987	92	456 : 1
Northern	26558	242	110 : 1
North Eastern	18992	96	198 : 1
Northeast Frontier	16459	45	366 : 1
Southern	17521	76	231 : 1
South Central	5995	84	71 : 1
South Eastern	20493	28	732 : 1
Western	25193	259	97 : 1

Further, the number of staff taken up for lapses was very much less in 1982 than in 1977, as may be seen from the following sample study on four Railways :—

Railways	1977-78		1981-82	
	Claims paid (Nos)	No. of staff punished	Claims paid (Nos)	No. of staff punished
Central	32661	175	29724	87
Northern	22611	1358	26558	242
North Eastern . . .	12377	508	18992	96
Western	28524	221	25193	259

In majority of the cases (about 66 per cent) the staff was let off with censure and recording of the error only.

1.18 *Effect of compensation on traffic*

The impact of the series of failures in the implementation of remedial measures was the increase in the number of claims made (7.4 lakhs in 1981-82 against 4.6 lakhs in 1977-78) and claims repudiated or pending to be settled (5.4 lakhs in 1981-82 against 2.8 lakhs in 1977-78) resulting in loss of goodwill of the customers and more and more diversion of traffic in several high profit yielding commodities to road as referred to in para 1.10 above. Apart from high incidence of loss and pilferage, factors such as failure to adhere to guaranteed transit time, inability to supply adequate number of commercially fit covered wagons (e.g. sugar, cement) rigid packing conditions, inadequate arrangements for escort in case of motor car, tractor consignment had a greater impact on their traffic offering. (According to recommendations of Rail Tariff Enquiry Committee (RTEC), 1980 it is economical to transport these items by road only for leads between 450—700 km.)

Details given in the two tables on pages 16—18 indicate this trend between 1977-78 and 1981-82 :

I. Details of production* and tonnage moved by rail** of certain high rated commodities.

Name of commodity	1977-78			1981-82			Percentage increase in production in 1981-82 over 1977-78
	Production	Movement by rail (000 tonnes)	Percentage of rail movement	Production	Movement by rail (000 tonnes)	Percentage of rail movement	
1. Tea . . .	557	104	19	556	64	11	..
2. Edible Oil (Vanaspati) .	571	42	7	865	41	5	51.2
3. Jute . . .	965	516	54	1228	216	18	27
4. Oil seeds . . .	9000	899	10	10900	777	7	21
5. Sugar . . .	6462	1520	24	8434	1508	18	31
6. Potato . . .	814	413	51	994	305	34	22
7. Cement . . .	19300	13948	72	20900	11030	5	8
8. Motor cars (Number) .	84400	1100	1.3	154400	661	0.4	83

*Source : Economic survey 1982-83.

**Commodity statistics (Statement 7-B)

II. Extent of fall in traffic and loss of earnings :

Commodity	Percentage increse in production between 1977-78 and 1981-82	Traffic (in 000 tonnes) 1977-78	Traffic (in 000 tonnes) 1981-82	Traffic level on the basis of increase in production (vide Col. 2) (000 tonnes)	Traffic not offered (shortfall) col. 5-col. 4 (000 tonnes)	Average lead of commodity (km)	Loss of earnings* 1981-82 (Rs. in lakhs)	Remarks (incidence of compensation as percentage of its traffic earnings)
1	2	3	4	5	6	7	8	9
1. Tea	—	104	63	104	41	1896	147	5.9
2. Edible Oil (Vanaspati) .	51.2	42	41	62	21	1682	60	3.3
3. Jute (Raw) . . .	27	516	216	655	439	935	883	4.0
4. Oil seeds	21	899	777	1088	311	1251	525	6.3
5. Sugar	31	1520	1508	1984	476	1334	813	2.5
6. Potato (perishable) . .	22	413	305	504	199	1651	309	5.7
7. Cement	8	13948	11080	15064	3984	748	4450	0.3
8. Motor car, tractor, trucks (Figures are in numbers : equivalent tonnage loaded given in bracket).	83	1100 (6.1)	661 (5.6)	2013 (11.0)	1352 (5.4)	1306	14.58	69.5

Table II—Continued

Commodity	Percentage increase in production between 1977-78 and 1981-82	Traffic (in 000 tonnes) 1977-78	Traffic (in 000 tonnes) 1981-82	Traffic level on the basis of increase in production (vide Col. 2) (000 tonnes)	Traffic not offered (shortfall) col. 5-col. 4 (000 tonnes)	Average lead of commodity (Km)	Loss of earnings* 1981-82 (Rs. in lakhs)	Remark (incidence of compensation as percentage of its traffic earnings)
1	2	3	4	5	6	7	8	9
9. Leather goods	**	14	11	14	3	1545	10.06	41
10. Spices	**	538	464	538	74	1355	149.40	7.1
11. Piece goods	14	99	63	113	50	1490	175.82	12.5
12. Matches	**	24	23	24	1	2122	4.41	5.5
13. Fresh fruits & vegetables	**	672	607	672	65	1555	99.55	5.7
14. Medicines	**	14	8	14	6	1561	21.07	18.0
15. Jaggery	**	890	371	890	519	1255	84.67	1.2
							7746.56	

Total Loss of earnings due to fall in traffic in 1981-82 vis-a-vis 1977-78 : Rs. 7746.56 lakhs.

*Loss of earnings estimated in audit as per formula, shortfall × lead x average rate per tonne km.

**Specific growth rate/increase in industrial production of these items is not available for 1981-82. But general economic growth rate per year is 4.5 per cent on the average during 1977-78 and 1981-82 (Economic Survey 1982-83).

Claims settled in case of container traffic was very negligible, being hardly one case for the entire year 1982 for Rs. 535 against earnings of Rs. 43.77 lakhs from such traffic in 1981-82 (0.01 per cent*). However, the container** services introduced in 1966 has yet to make a sizeable dent.

1.19 *Conclusions*

(i) Though the over all percentage of claims paid to earnings was 0.8, such percentage in respect of parcel and high rated commodities ranged from 3.4 to 69.5 per cent. The overall average gives a incorrect picture of the incidence of claims.

(ii) Loss and damage claims preferred and paid had increased between 1977-78 and 1981-82 despite streamlining of railway operations, addition of new wagons, strengthening of claims prevention and security organisation during this period (4.6 and 1.8 lakhs in 1977-78 to 7.4 and 2.03 lakhs in 1981-82 respectively).

(iii) Grains and pulses, fresh fruits, vegetables and other perishables and coal and coke were the worst affected commodities. The claims were due to complete loss of packages and pilferage, damage by wet and delay in transit and other causes resulting from a series of failures in the implementation of the remedial measures by the commercial, operating, mechanical, security and claims departments.

(iv) Improper sealing, documentation and apathy to pack, lable, mark, care by Commercial Department, inadequate security arrangements in goods sheds, non provision of escorts to block rakes of food specials, tractor consignments by RPF led to increasing shortages and pilferages.

(v) Mechanical Department used only 45 per cent of panel patching facilities in the workshops. Its failure to follow the prescribed maintenance practices coupled with failure of commercial department to reject defective wagons for loading resulted in heavy payment of compensation due to damage by wet (Rs. 3.68 crores in 1981-82).

*Sample study on Northern Railway.

**C.f. para 2 of the Advance Report of the Comptroller & Auditor General of India on Railways—1981-82.

(vi) Mismarshalling, irregular shunting, despatching of wagons without correct seal card particulars etc. by the Operating Department had been resulting in increasing incidence of wagons remaining unconnected exposing it to loss and pilferage ; further inadequate availability of parcel vans, non-adherence to target transit time had taken a heavy toll of claims.

(vii) Despite augmentation of strength (9.5 per cent between 1977-78 and 1981-82), RPF had failed to maintain the level of its scheduled duties (i.e. escorting, patrolling and picketting).

(viii) Claims Department despite 20 per cent increase in its staff strength between 1977-78 and 1981-82 had proved ineffective in controlling the claims and initiating penal action against commercial and operating staff responsible for lapses. Action against staff responsible for claims of foreign traffic, which accounted for 75 per cent, was wanting due to lack of coordinated efforts between concerned Railways.

(ix) The impact of all the above failures had affected the loading of several high rated commodities such as tea, edible oil, jute, leather goods, sugar, motor car and tractor consignments from 1977-78 onwards, etc. Despite increase in their production ranging from 8 to 83 per cent during 1977-78 to 1981-82, the loading of these commodities on the Railways declined resulting in a loss of earnings to the extent of Rs. 77.46 crores.

(x) Claims paid in respect of traffic moving in containers was only 0.01 per cent of its earnings. However, this service is still in in-fancy and is yet to be developed though introduced in 1966 and the earnings therefrom still constitute negligible percentage (0.2 per cent in 1981-82).

2. Commodity freighting on the Indian Railways

Railway freight for goods traffic is determined keeping in view :

(1) Cost of service,
(2) Value of the commodity,
(3) Characteristics (loadability, vulnerability to damage, its proneness to other modes of transport).
(4) Social and economic consideration.

Wagon load freighting is based on classification of commodities ranging from class 32.5 (lowest|cheapest) to class 150. Rates at class 65 and above, not only cover transportation costs, inclusive of incidental costs (depreciation, interest etc.) but also yield increasing margin of profit with every upward classification.

During the period from 1979-80 to 1981-82, there had been three general revisions of freight rates to generate additional resources for meeting operational and capital expenditure. It was, however, noticed in audit that such general revision of freight rates had resulted in some anomalies in freight classification for certain streams of traffic. As indicated below there were also some delays in amending suitably the tariff conditions viz., classification and minimum weight resulting in uneven distribution of the incidence of freight, fall in traffic in some cases and consequent under utilisation of wagons earmarked for such traffic. Though guidelines were issued by the Ministry of Railways (Railway Board) to the Railways since 1975 to quote concessional station to station rates to reduce the impact of increase in freight rates, these were not coordinated and reviewed adequately and evaluated. The commodity description given in the tariff left scope for obtaining lower class rate by misdeclaration, leading to loss of revenue on large scale

(a) Under utilisation of assets—Rolling Stock

(i) Decline in Molasses traffic

Production, loading and earnings from Molasses traffic from 1979-80 was as under :

Year	Production	Tonnage loaded by Railway	Traffic earnings (Rs. in lakhs)	Rate per tonne
	(in thousand tonnes)			Rs.
1979-80	1582	278	219	78.60
1980-81	2126	115	97	84.5
1981-82	3837	106	182	171.50

A fleet of 363 BG tank wagons and 202 MG tank wagons (mainly on the North Eastern Railway) has been earmarked for loading of Molasses.

The following factors affected the loading and earnings from this traffic :

(1) Due to default in payment of freight at the destination by some of the consignees on Eastern Railway, pre-payment of freight was made compulsory from September 1979 by the Railway Board. Some of the bulk loaders of Molasses in Bombay and Delhi represented to the Railway Board in October 1979 and December 1979 that they had cash management problem in arranging pre-payment of freight at over 50 odd booking stations and therefore, condition of pre-payment of freight should be withdrawn and allowed to be booked on 'to pay' basis, as before. Two years later in March 1981, on further representations, the condition of pre-payment of freight at the booking point was withdrawn.

(2) There were general increase in freight rates of all classes—10 per cent from 1st April 1979, 15 per cent from 15th July 1980 and a further 15 per cent from 1st April 1981 and classification of Molasses was raised from class 65 to 80 effective from November 1981.

(3) About 22 railway sidings of sugar factories which were giving substantial Molasses traffic on the MG sections of North Eastern Railway were not converted from MG to BG along with the conversion of the main line from MG to BG in July 1981 on that Railway.

Remedial action is yet to be taken to recapture the Molasses traffic lost owing to above factors with a view to optimise the use of tank wagons earmarked for this traffic.

(ii) Live stock wagons

The Railways, hold 5,826 BG and 1,839 MG covered wagons specially designed with fittings, etc. for the transport of live stock.

Prior to June 1981, live stock were charged at wagon km rate. From June 1981 this traffic was brought under the class rates (class 110—minimum weight 60|45 quintals for BG|MG). This revision of the basis for charging of freight resulted in a very steep increase of freight as under :

Distance for charge	Charge as per		Percentage increase
	Old rate at wagon km.basis Rs.	New rate at class 110 for 60 quintals Rs.	
300	383	580	51.43
500	577	837	45.06
800	979	1375	40.44
1000	1181	1636	38.52

The revision was done :

(1) To have a rate within the general rate structure so that revisions in the general freight structure would automatically apply to live stock also,

(2) to implement the national policy to rear the live stock in rural areas and discourage their movement to the cities. Decline in live stock traffic as a result, from 1981-82 was as under :

Year	Number of wagons loaded		Rate per wagon	Earnings (Rs. in lakhs)
	BG	MG	Rs.	
1981-82	35763	23224	1403	994.00
1982-83	27600	8924	1904	1,695.36

The Railway Board is yet to devise measures for alternative use of the specially designed cattle wagons which had been rendered surplus owing to decline in the loading of live stock.

(b) Loss of traffic due to failure to quote station to station rates.

Station to station rates at levels, lower than the class (normal tariff) rates, are notified by the zonal railways with a view to develop particular stream of traffic, specially in the empty return direction or to retrieve traffic lost to road owing to increase in tariff rates etc. Such concessional rates cover the dependent (incremental) cost of traffic instead of the fully distributed cost including interest etc. on which class rates are based.

(i) Iron and Steel Scrap

The traffic in steel* scrap has declined in recent years as under :

Year	Tonnage loaded (in thousand tonnes)	Average rate per tonne (in Rupees)	Earnings (Rs. in lakhs)
1980-81	360	143.0	513
1981-82	355	188.3	669
1982-83	271	213.7	579

Owing to levy of supplementary charges and raising of the classification of Iron and Steel scrap in 1980-81 and 1981-82, the rail tariff for scrap became costlier than road rates for distance upto 1700 km. On the Western Railway, there was regular traffic of this item from Carnac Bridge to Mandi Gobindgarh, an important re-rolling centre on Northern Railway about 1700 km away. While the rail rate per tonne effective from February 1982 was Rs. 8,428, the road rate was only Rs. 7,840 per tonne. During the period from February 1982 to May 1982, only 51 wagons of scrap per month were loaded against the average of 97 wagons per month between these two stations in previous year. In October 1982, the Western Railway though belatedly, brought into effect a station to station rate at 23.4 per cent below the normal tariff rate to retrieve the traffic and achieved loading of 64 wagons on average per month from Carnac Bridge from October 1982 which fetched an earnings of Rs. 3.3 lakhs per month. Other railways have yet to initiate similar action to retrieve this traffic.

(ii) Loading in open BOX, BRH, BFR wagons

The above types of wagons move empty in return trip. The freight rates for the commodities transported in such wagons do compensate this factor but there is absence of concerted efforts to attract traffic such as motor cars, trucks, tractors, heavy machinery items, agriculture equipments that can utilise these open wagons in the empty direction. It was observed that threshers-bulky agricultural equipments—were booked from Ludhiana on Northern Railway, as smalls, but were loaded as full wagon load consignment, (one or two in one wagon though more than two could be loaded in a wagon) and thus, benefit (estimated at Rs. 2.38 lakhs during bookings made from

*This is an item not susceptible to loss or damage and could be transported even in open wagons in empty direction, thereby yielding surplus at lower class rates.

September 1980 to February 1982) of utilisation of empty movement was, derived not by railways, but by its users.

(c) Non review of station to station rates fresh fruits and vegetables

The traffic in fresh fruits and vegetables had declined from 712 thousand tonnes in 1977-78 to 607 thousand tonnes in 1981-82. The introduction or continuance of station to station rates by some of the railways for fresh fruits during the years 1978 to 1982 as seen from a review of these rates in audit were for considerations other than developing such traffic as detailed below :

(i) Oranges

Both Central and South Eastern Railways introduced in 1978-79 special rates at 30 per cent below the normal tariff for booking of oranges in wagon loads from Nagpur, a joint station of these railways to a number of stations on the Eastern and Northern Railways. While the Central Railway was extending this concessional rate from year to year, the South Eastern Railway had withdrawn the concessional rate from January 1980 without prior advice to Central Railway on the ground that the road rates for this traffic had increased, rendering the continuance of the concession unnecessary. The cost of this concession to Central Railway during the years 1980 to 1982 has been estimated at Rs. 1.67 crores. Differential rating on Central and South Eastern Railways resulted in anomalies and undercharges in the bookings from Central Railway. The South Eastern Railway re-introduced station to station rates in February 1982 mainly to obviate the anomaly.

(ii) Plantains

On the Central Railway the station to station rates for plantain traffic at 50 per cent below the normal tariff was sanctioned by the Railway Board in June 1978 and continued till June 1982 without verifying the need or the extent of such concession with reference to the prevalent road rates. Loss or gain with reference to incremental cost of such traffic was not ascertained as required in the rules. The rail rates even at 30 per cent below the normal tariff for this stream of traffic was cheaper by 15 to 40 per cent than the road rates and therefore, the Central Railway did not recommend continuance of this concession at 50 per cent in November 1980 and again in June 1981. During the same period Western Railway limited the concession for plantain traffic originating on its railway to 30 per cent below the normal tariff. The loss of earnings due

to the extra concession of 20 per cent on the plantain traffic on Central Railway was assessed at Rs. 9.20 crores during 1978—82.

The above instances indicate lack of coordination between the concerned Railways. The Railway Board had also failed to coordinate the schemes of different railways with a view to avoiding anomaly due to differential freighting while retaining the traffic in fresh fruits.

(d) Loss of traffic due to incorrect or delayed revision or non revision of minimum weight conditions and classification.

(i) Jaggery (gur) and sugar

Jaggery and sugar were classified under class 55 and 65 respectively. Sugar could be loaded to the carrying capacity (22 to 23 tonnes per BG wagon) which was also the chargeable minimum weight according to tariff condition. However, in case of Jaggery, the actual loadability was found to be 17 tonnes per BG wagon though the chargeable minimum weight was 20.5 tonnes. On representation from trade for reduction of the minimum chargeable weight of jaggery, the Railway Board had agreed in 1977 for such reduction (11 per cent) only for loading jaggery from Northern Railway in BCX (Bogie) wagon and not in other types of covered wagons (over 80 per cent of covered fleet). Thus bulk of the traffic in jaggery on all the Railways is charged freight on the tariff minimum weight (20.5 tonnes) though actual loadability was around 17 tonnes. This has resulted in higher incidence of freight per tonne on jaggery almost equivalent to that of sugar and diversion of jaggery traffic from railways to road movements as under :

Year	Production (in 000 tonnes)	Tonnage loaded (000 tonnes)	Earnings (Rupees in lakhs)	Average rate of freight charged (per tonne)
	Jaggery			
1979-80	7548	635	657	103.5
1980-81	8226	399	471	117.9
1981-82	9871	371	605	163.1
	Sugar			
1979-80	3858	1546	1521	130.2
1980-81	5148	1514	2032	134.8
1981-82	8437	1508	2577	170.7

The prevalence of different minimum freight for jaggery on Northern and other Railways presents an anomaly.

(e) Delay/indecision in revision of classification and minimum weight.

Wagon load rates prescribe certain minimum chargeable weight for each commodity depending on its loadability in pressed, unpressed (loose) condition after test weighment.

Due to absence of weighment facilities and non-weighment of wagons for operational reasons, freight is normally charged on the prescribed minimum weight or the senders* weight whichever is more. Mention of this fact was made in para 5 of Report of the Comptroller and Auditor General of India—Union Government (Railways) 1980-81 on utilisation of weigh bridges. Commodities in pressed/packed condition are classified lower due to its higher pay load and savings in operational costs.

It is, however, noticed that minimum weight condition were not being reviewed by the Railways keeping in view the above aspects. A few instances are given below :

(i) Ropes unserviceable or rope cuttings

Prior to August 1979, minimum weight for charging freight on a wagon load consignment of ropes—unserviceable or cuttings booked in a BG wagon was 130 quintals. No separate minimum weight for pressed ropes was fixed. There was regular inward and outward traffic of this commodity to and from Shivpur Station on Northern Railway, as certain factories at Shivpur received this item in loose condition and processed them into pressed packing for booking to K. P. Dock and Kumargachi sidings on Eastern Railway. Such consignments were charged on the tariff minimum weight at 130 quintals or the sender's weight whichever was higher. During Audit inspection in May 1977 it was noticed that the aforesaid commodity when booked in full pressed condition was being charged on the basis of the minimum weight condition prescribed in the tariff in most of the cases though in a few cases the weight charged was 205 quintals and more.

Test loadings in January 1978 indicated that this item when fully pressed and packed in bales could be loaded in a BG wagon to the extent of 206 quintals. The Railway Board, however,

*Senders Weight : Weight declared by the consignor- sender.

notified the different higher minimum weight for BG wagon at 205, 160 and 130 quintals in respect of full pressed, half pressed and unpressed condition respectively only with effect from 17th August 1979.

Meanwhile between January 1978 and August 1979 about 475 wagons of pressed rope cuttings were booked from Shivpur to the destinations on Eastern Railway and freighted on the basis of minimum weight of 130 quintals or sender's weight entailing loss of revenue of Rs. 2.43 lakhs.

The Railway staff at Shivpur failed to take note of the form in which the commodity was received (loose) and booked (pressed) outward. Even after the issue was raised by Audit in August 1977 and the test loading indicated weight of 205-206 quintals per BG wagon in January 1978, the Railway Administration failed to enforce higher minimum weight till August 1979 resulting in loss of revenue as indicated above.

(ii) *Jute (Raw) pressed Vs. half pressed*

Following is the classification and minimum weight conditions of Jute full pressed and half pressed :

	Class and minimum weight (BG)	Average lead of traffic 1981-82 (Km)	Rate per tonne (Rs.)	Freight realisation for the Railways per tonne
Jute full pressed . . .	70 CC (22 tonne)	935	168.90	168.90
Jute half pressed . . .	85-110 quintals (11 tonne)	935	203.80	101.90

Bulk of the traffic (97.5 per cent of the total traffic in 1981-82) in Jute (raw) on the Eastern, North Eastern, North-east Frontier and South Eastern Railways move as half pressed only. For every wagon load with half pressed jute, the freight realisation for the Railways was only Rs. 101.90 per tonne whereas in case of fully pressed jute due to its higher loadability the freight realised per tonne was Rs. 168.90 for the same lead. In 1981-82 for every wagon load with half pressed jute, Railways lost Rs. 1474 per wagon. As the freight burden on full pressed

packing is more, trade is encouraged to book half pressed packings, even though the Railways have incurred the cost of haulage of full wagon.

(iii) Potato : Non-enhancement of minimum weight condition

Potato traffic on Northern and North Eastern Railways was sizeable, being 2.15 lakhs tonnes on the Northern and 0.77 lakh tonne on the North Eastern Railways out of a total loading of 3.05 lakh tonnes on Indian Railways during 1981-82.

In July 1976, Northern Railway, on the basis of test loading of 90 wagons, proposed enhancement in the existing minimum weight condition for potatoes, from 160|125 quintals to 185|135 quintals for BG|MG wagons. Their proposal was considered by the Commercial Committee which called for further test weighment. However, Northern Railway withdrew their proposal on the consideration that this commodity was susceptible to damages.

In December 1979 the Northern Railway again reported to the Railway Board that loading of potatoes upto 185 quintals and more in a BG wagon continued despite its susceptibility to damages and sought for enhancement of its existing minimum weight (160|125 quintals) to 185|135 quintals per BG|MG wagon.

The Railway Board enhanced (January 1980) the minimum weight temporarily to 185|135 quintals per BG|MG wagon respectively for a period of six months and extended it upto 31st December 1980 only for loading of potatoes from stations of Northern Railway.

Further extension of minimum weight was stalled by representations from trade about difficulty|damages in the process of loading.

Further reports from Northern Railway to Railway Board in March and August 1981, however, indicated no loading difficulties or damages at destinations and that out of 66 wagons loaded, 50 weighed 181-200 quintals and only 3 weighed 160.165 quintals. The Railway Board advised enhancement of the minimum weight to 180|135 quintals per BG|MG wagon effective from July 1982 only in June 1982. This again was a temporary sanction for six months limiting it to bookings from Northern Railway stations only.

During 1981-82 when the enhanced minimum weight was not in operation, Northern Railway loaded 10,259 wagons on the BG and North Eastern Railway loaded 6,348 wagons on the MG and charged freight on the basis of non enhanced weight (160 quintals|125 quintals) or sender's weight whichever was higher.

A review by Audit of the traffic in potatoes at one station viz., Jalandhar City, on Northern Railway during the period from 1st January 1981 to 30th June 1982 revealed that out of 3,130 wagons (BG) loaded with potatoes at that station, freight in respect of 1083 wagons was charged on the old minimum weight (160 quintals) or senders weight resulting in loss of freight to the tune of Rs. 3.30 lakhs during this period as compared to freight chargeable for a minimum of 180 quintals.

(iv) Cotton Seeds

On the Southern Railway a reduced minimum weight is in force for booking of cotton seeds in MG wagons for the past 21 years (i.e. 1962) namely 115 quintals against the tariff minimum weight of 125 quintals. It was noticed in 1977 at some of the loading stations such as Haveri, Davangere on this railway that out of 66 bookings of this item, the number of wagons weighing over the reduced minimum weight of 115 quintals was 65; 63 out of these 65 wagons weighed even over the tariff minimum of 125 quintals. This reduced minimum weight (which results in a loss of freight on 10 quintals or one tonne in every MG wagon) was not prescribed on other zonal Railways—Northern Railway which also has originating traffic of this commodity in its MG section.

The reduced minimum weight applicable only on Southern Railway is obviously not warranted.

(v) Fabricated steel structurals

Till August 1975 fabricated steel structurals were classified along with Iron or steel—Division 'B'—under class 70 (for wagon loads) with minimum weight 205 quintals in BG wagon for charging freight. As it was not possible to load fabricated steel structurals of long lengths upto minimum weight prescribed as above, the Railway Board revised (September 1975) the minimum weight to 160 quintals|110 quintals depending upon the length of structurals as below|over 7 metres. From November 1975, fabricated steel structurals of 7 metres and above in

length were under Iron or steel Division 'A' class 87.5 and those below 7 metres under Iron or Steel Division 'B' class 80. From December 1975, both these items were removed from Iron or steel sector and were listed separately in the tariff without any change in classification and minimum weight condition. As fabricated steel structurals is part and parcel of Iron or Steel division, its freight classification should correspond to the classification of iron and steel. However, delinking of this item from iron and steel sector led to delay in revision|non revision of classification for fabricated steel structurals. The classification for Iron or Steel was revised upward in January 1981, but the uprating of fabricated materials to the level of Iron or Steel Division 'A' or 'B' came in August 1981. Similar upward revision made in case of iron or steel items in February, June and December 1982, are yet to be extended to fabricated materials. A review in audit of the freighting at the above lower class of fabricated steel structurals loaded from two stations (Kalyan and Nasik Road) on Central Railway disclosed loss of earnings of Rs. 1.93 lakhs for the period from 15th February 1982 to 30th June 1983.

(vi) Timber

The tariff for wood (timber-unwrought) provide for the following classification :

> "Timber-unwrought in the form of logs and ballies, class 60 minimum weight 185|135 quintals for BG|MG wagons."

The above minimum weight conditions were in existence since 1973. The Railway Board had approved temporary enhancement of minimum weight in case of loading of logs in MG wagons on North Eastern Railway in August 1974 and Northeast Frontier Railway in August 1982 from 135 quintals to 150* quintal subject to Railways conducting test weighments for taking a final decison. However, in case of termba (unweight) traffic moving on BG, no action has been taken to revise the minimum weight.

A review in audit of the loading of timber (unwrought-logs and ballies) on different Railways which have sizeable originating traffic for 1981-82 indicate that the average weight per wagon

*Revised to 150 quintals for open and 160 quintals for Covered wagons on the metre gauge.

loaded by the Railways both on the BG and MG varied widely as detailed below :

Railway		Number of wagons loaded (commodity code 525)	Corresponding tonnes loaded as fulls in wagons	Average weight loaded per wagon (in quintals)	Tariff minimum weight
1		2	3	4	5
Central	(BG)	2626	53217	203	185(BG)
Eastern	(BG)	4130	71493	173	185(BG)
Northern	(BG)	6740	141633	210	185(BG)
North Eastern	(MG)	10054	155878	155	135(MG) — 160*(MG)
Northeast Frontier	(BG)	2621	49071	187	185(BG)
	(MG)	5554	87277	157	135(MG) — 160**(MG)
Southern	(BG)	5536	118623	214	185(BG)
	(MG)	838	11927	142	135(MG)
South Eastern	(BG)	26610	540713	203	185(BG)

In view of the higher average weight actually noticed (214 to 203 quintals) expeditious action is necessary to revise the existing minimum weight condition for BG wagons.

(f) Loss of revenue due to misdeclaration

(i) Eucalyptus wood billets as timber waste

Sawn Timber (Timber NOC) in wagon loads is charged at class rate 60 with minimum weight condition of carrying capacity (CC)—22 tonnes per BG four-wheeler wagon). Timber waste is, however, charged at lower class 50 with minimum weight condition of 160 quintals.

Eucalyptus pulp wood billets booked from Godapiasal station (South Eastern Railway) to the paper mills at Naihati, Titagarh

*Revised in 1974

**Revised in 1982

and Kakinara (Eastern Railway) were booked in wagon loads by declaring it as timber waste in the forwarding notes. The consignments were booked on forest transit permits which described the commodity as "Eucalyptus pulp wood billets (timber waste)". On a reference from Railway Administration, the forest authorities confirmed that this commodity was "Eucalyptus pulp wood billets" and not timber waste. This irregular booking was stopped on detection by a Travelling Inspector of Station Accounts in July 1977. Since then, this commodity was charged at higher class 60. A total of 190 wagons of the commodity were booked by misdeclaring it as timber waste, at class 50 resulting in undercharges of Rs. 4.56 lakhs under penal provision. Similar misdeclaration of Eucalyptus billets was noticed in respect of bookings from 3 other stations Salbony, Chandrakona and Piardoba, resulting in undercharges of Rs. 7.85 lakhs under penal provision.

(ii) Granite stone dressed (class 95), undressed (class 60) as stone NOC (class 47.5)

There was traffic of dressed stones in wagon loads (cut by hammer and chiselled by skilled labour to specific dimensions) from various stations in Jhansi division of Central Railway to Hardwar and Jawalapur stations on Northern Railway. On declaration of the commodity as stone block, stone boulders, boulders undressed etc. by the consignor to get the advantage of lower class 47.5, the Railway staff levied freight at lower rates, accepting the commodity as stone NOC. This was detected and stopped only in March 1980 by a Travelling Inspector of Station Accounts. The consignor had since admitted that the commodity booked was granite stone undressed chargeable at class 60 and on this basis the extent of undercharges was Rs. 3.62 lakhs approximately and this is yet to be recovered.

These cases indicate evasion of revenue on a large scale.

CHAPTER II

PROJECTS

3. South Central Railway—Bhadrachalam Road—Manuguru Railway Project

I. *Introduction*

3.1 M|s. Singareni Collieries (a joint venture of the Governments of India and Andhra Pradesh) requested (July 1973) the Railway Administration to carry out survey for the construction of a broad gauge (BG) line of 52 km. length (revised to 49 km. subsequently) to connect Bhadrachalam Road rail head with Manuguru mines under development for the movement of coal. According to the survey Report (1974) the railway line from Manuguru to Gajulagudem (42 km.) was to be constructed under phase I as bulk of the coal movement till 1979-80 was expected to be only upto Gajulagudem for meeting the requirements of the Kothagudem Thermal Station of Andhra Pradesh State Electricity Board. Rest of the line was to be taken up under Phase II. A project estimate for Rs. 8.2 crores (both phases) was sanctioned by the Ministry of Railways (Railway Board) in June 1977 with the condition that work in Phase II should not be started pending their decision on gradient to be adopted between Gajulagudem and Bhadrachalam Road. The due dates for completion of works in phases I and II were fixed as 31st March 1980 and 31st December 1981 respectively.

3.2 The construction of this 49 km. long line as a branch line (full cost being borne by the Railway) instead of a private siding (full cost being borne by the Colliery) or at best an assisted siding (cost being shared between the Railway and the colliery) was a deviation from the extant rules.

II. *Financial viability*

3.3 Though initially it was contemplated (December 1973) that the freight should be levied on inflated basis, this was dropped as the final location-cum-engineering survey Report (1974) indicated that the Project would be financially viable yielding a return of 9.8 per cent.

However, there appears to be only remote chance of realisation of the aforesaid expectations in view of actual production in the new mines as ndicated below :

Year	Anticipated Production	Actual production
1979-80	15 lakh tonnes	2.5 lakh tonnes
1980-81	19 ,, ,,	4.3 ,, ,,
1981-82	23 ,, ,,	10.7 ,, ,,
1982-83	26 ,, ,,	13.7 ,, ,,
1983-84	28 ,, ,,	
1984-85	30 ,, ,,	

Moreover, the cost of the Project has also increased from Rs. 8.2 crores (as per estimate of June 1977) to Rs. 14.5 crores (as per estimate of January 1982) and again to Rs. 15.3 crores (as per progress report of actual expenditure to end of March 1983). Thus, the actual coal production being half of what was anticipated and the actual cost of the project being double of what was estimated, the return would be reduced to just 1|4th of what had been originally assessed.

It is a matter of common knowledge that movement of goods over short distances is economical by road as compared to rail. The National Transport Policy Committee too had in its Report (May 1980) observed that in the case of carriage of coal, comparative cost advantage was in favour of road transport upto a distance of 200 to 300 km. Judged in this context, the construction of this new line of 49 km. length for transportation of coal (primarily, for meeting the requirements of Kothagudem Thermal Plant situated at a distance of just 42 km. from the coal mines at Manuguru) was at variance with the general policy of rail-road co-ordination.

III. *Availability of funds*

3.4 The position of funds asked for and granted, and the actual expenditure incurred on this project during 1977-78 to 1982-83 were as under :

(In thousands of rupees)

year	Funds asked for	Funds granted	Actual expenditure
1977-78 . . .	10,000	11,000	11,588
1978-79 . . .	20,000	20,000	19,899
1979-80	15,000	15,000	15,500
1980-81 . . .	25,448	25,448	25,546
1981-82	30,000	34,000	35,779
1982-83 . . . (upto 31-1-1983)	49,000	45,000	34,500
			1,42,832

3.5 Paucity of funds was not a constraint in the execution of this project. Still, the progress of works was slow. The target dates which had been originally fixed as 31st March 1980 and 31st December 1981 for Phases I and II respectively were subsequently (January 1983) revised to 30th June 1983 (both phases). However, the line had not been opened to traffic by even August 1983. These delays have led to escalation of costs.

IV. *Use of rails of varying standards*

3.6 The project report envisaged the use of class II 90 R rails for the new line and this was expected to be obtained from Vijayawada—Gudur section. In December 1980, Ministry of Railways (Railway Board) asked the Railway Administration, to use class I 90 R rails instead of class II rails, as it was felt that coal would have to be moved in block-rakes with heavier loads. Accordingly, the Railway Administration placed in May 1981 two indents for 6,000 tonnes of class I 90 R rails on Steel Authority of India, Ltd. (SAIL). The Railway Liaison Officer reported in August 1981 that as no allotment of class I rails had been made by the Railway Board to South Central Railway, the SAIL authorities had not programmed for any such supplies. It was only in June 1982 that the Railway could procure a limited quantity of 1350 tonnes of class I 90 R rails. Taking into account the urgency of the work, the Railway Administration obtained (August 1981) 1650 tonnes of class II rails from "Vija-

yawada-Gudur" section, and 2470 tonnes of 3 panel welded class II 90 R rails from Dornakal-Vijayawada section. The latter involved an additional expenditure of Rs. 6.21 lakhs on cutting of welded rails, drilling of holes in them, and their transportation by road. The Railway Administration, further, obtained 1720 tonnes of 52 Kg. class I rails in February|March 1983.

3.7 Owing to the delayed decision in regard to the changeover from class II to class I rails, production of class I rails had not been included in the production programme of the SAIL authorities. As such the line had to be laid with rails of varying standards (14 km. of class I 90 R rails, 23 km. of class II 90 R rails and 16 km. of 52 kg. class I rails), resulting in lack of uniformity of the track strength. This would lead to restricting the loads to suit the weakest rails viz. class II 90 R and rendering the use of stronger class I 90 R and 52 kg. rails infructuous. The extra expenditure in the latter type of rails is assessed at Rs. 2 crores. The Railway Administration stated (July 1983) that owing to the uncertainty of supplies, rails of different standards had been used and that the ultimate intention is to replace class II 90 R rails on receipt of 52 Kg. class I rails after the line is put to use. Any such replacement, as and when done, will still entail some avoidable expenditure.

V. *Delays*

3.8 There were numerous delays in the execution of the project, as indicated below :

(i) Earthwork contracts in Phase I were awarded and agreements executed during 1978 and 1979, with due dates of completion ranging between November 1978 and September 1980. However, on the request of the contractors, completion dates were extended without penalty, leading to delays of 12 to 29 months. Similar extensions were granted to the contractors in the case of work relating to Phase II, involving delays of 13 to 26 months.

(ii) The project estimate had been sanctioned in June 1977, subject to the condition that the work in phase II should not be started without prior clearance from the Ministry of Railways (Railway Board), as stated in para I ibid. The Ministry of Railways (Railway Board) took about two years to decide (March 1979) that the gradient should be such which would permit through haulage of

loads as on the adjacent section (Singareni-Dornakal).

(iii) The vacillating policy of the Railway Administration|Railway Board resulted in delayed procurement of rails, vide paras 3.6 and 3.7 above.

3.9 These delays contributed to the overall delay in completion of the Project. The original target dates of 31st March 1980 and 31st December 1981 fixed for completion of Phases I and II respectively were revised to 30th June 1983 (for both phases). The project estimate of Rs. 8.2 crores (June 1977) was revised to Rs. 14.5 crores (January 1982). Out of the total increase of Rs. 6.3 crores, an increase of Rs. 3.5 crores was stated to be due to escalation in rates (the remaining Rs. 2.8 crores being attributable to increased quantities and additional facilities).

3.10 Phase I of the Project related to construction of railway line from Manuguru to Gajulagudem (42 km.). It was originally scheduled to be completed by 31st March 1980 for carrying bulk of the coal production from Manuguru mines to Kothagudem Thermal Station. But it had not been completed till July 1983. During this period, the coal from Manuguru mines has been moving by road. Thus, even the traffic generated from the meagre production (cf. para 3.3) in the new mines was lost to the Railways on account of the delay in completion of the line.

VI. *Other topics*

3.11 Loss due to non-recovery of risk cost from a defaulting contractor

The contracts for the earth-work in reaches V and VI of Phase II of the work were awarded to contractor 'M' for Rs. 17.30 lakhs and Rs. 30.05 lakhs respectively. After executing works to the extent of Rs. 10.74 lakhs and Rs. 19.94 lakhs in reaches V and VI respectively, the contractor abandoned the work. The contract was terminated at risk and cost of the contractor and the balance works of the value of Rs. 8.37 lakhs and Rs. 14.48 lakhs (including increased quantities already accepted by the contractor) were awarded to other contractors at a cost of Rs. 15.36 lakhs and Rs. 22.71 lakhs respectively. The risk cost amount recoverable from contractor 'M' for both contracts worked out to Rs. 15.22 lakhs, against which only a sum of Rs. 2.7 lakhs is due to him as security deposit|earnest money, leaving a balance of Rs. 12.52 lakhs still outstanding against him.

3.12 Jungle clearance

The Phase I of the work was mostly spread over thick reserve forests upto a length of about 30 km. The Railway Administration cleared the forests, and transported (1978) cut timber|fuel to the nominated depots of the Forest Department of the State of Andhra Pradesh. Transport charges amounting to Rs. 1.12 lakhs are yet to be paid by the State Government (July 1983).

3.13 Construction of staff quarters

Provision was made for 121 quarters at Manuguru and 11 at Kothagudem. Of these, 60 quarters were completed (except for electrification) by June 1980, another 60 by September 1981 and 11 by February 1981 at a cost of Rs. 20 lakhs. The line was originally planned to be completed by December 1981, but has not been completed so far (July 1983). As a result of the delay in completion|commissioning of the line, the quarters have been lying vacant for over an year and a half.

3.14 Procurement of girders.

For the construction of bridges in the project, 25 girders of 18.30 metres and 22 numbers of 12.20 metres each were required. The Railway Administration placed orders (1978—81) on Engineering Workshops at Lallaguda on South Central Railway and at Arakkonam on Southern Railway for 28 numbers of 18.30 metre girders and 41 numbers of 12.20 metre girders against which 28 numbers of the first type and 40 numbers of the second type were received (February 1981—March 1982), resulting in excess receipt of 3 numbers and 18 numbers valued at Rs. 3.69 lakhs and Rs. 10.48 lakhs respectively. Of the surplus, 18 have been transferred (March 1981—July 1982) elsewhere and the balance are yet to be disposed of. The excess procurement resulted in unnecessary blocking of capital.

3.15 A few other irregularities aggregating to Rs. 8.71 lakhs, noticed in stores accounts of the project, are indicated in Annexure-V.

Summing up

1. A branch line of 49 km. fully financed by the railway was provided instead of a private siding at the cost of the colliery or an assisted siding on cost to be shared by the Railway and the colliery, deviating from the general procedure.

2. Cost over-runs from Rs. 8.2 crores (June 1977) to Rs. 14.5 crores (January 1982) occurred due to non-completion of the project within the prescribed time frame. The increase in cost was inter-alia, due to escalation in rates to the extent of Rs. 3.5 crores.

3. The actual coal production during 1982-83 was 13.7 lakh tonnes, as against anticipated production of 26 lakh tonnes.

4. The actual coal production being half of what was anticipated, and the actual cost of the project being double of what was estimated, the project is not expected to be financially viable, as conceived originally.

5. Road movement of coal over short distances being economical, construction of this new line, mainly for carrying coal to Kothagudem Thermal Plant, over a short distance of 42 km. was not an economical proposition.

6. Even though there had been no constraint on the supply of funds to this project, the construction of the line scheduled to be completed by March 1980| December 1981 had not been completed till July 1983.

7. Frequent changes in the type of rails resulted in laying of track with rails of varied strength, restricting the load to be carried on the entire line to suit the strength of the lowest type of rails, rendering the use of the stronger rails infructuous. The excess expenditure at this stage in the latter type of rails is assessed at Rs. 2 crores.

8. The railway line from Manuguru to Gajulagudem was scheduled to be completed by 31st March 1980 for carrying coal to Kothagudem Thermal Plant. On account of the delay of more than 3 years in the completion of this line, coal traffic has been moving by road during the period.

9. Risk cost amounting to Rs. 12.52 lakhs from a defaulting earthwork contractor remained to be realised.

10. An amount of Rs. 1.12 lakhs dating back to the year 1978 remained to be realised (July 1983) from the Forest Department of the State Government of Andhra Pradesh.

11. The staff quarters already constructed at a cost of Rs. 20 lakhs have been lying unoccupied for over an year and a half.

12. The project authorities procured 21 numbers of girders valued at Rs. 14.17 lakhs in excess of the project requirements.

4. Metro Railway—Electrification of Ring Railway, Delhi

4.1 The Metropolitan Transport Project (MTP) Railway on the basis of detailed field studies and survey reports on commuter traffic from the corridors* connecting New Delhi|Delhi, proposed in their project report (1977), electrification of the existing ring railway track with spurs to two of the corridors, namely Shakurbasti and Tughlakabad, and provision of Electric Multiple Unit (EMU) services at a cost of Rs. 22.65 crores. They also proposed at a cost of Rs. 31.55 crores provision of similar EMU service in the sections connecting the following important corridors :—

(i) Delhi-New Delhi-Ghaziabad (41 km. already electrified from 1976-77).

(ii) New Delhi-Ballabgarh (36 km).

(iii) New Delhi-Delhi-Sonepat (43 km).

4.2 Accordingly to their survey reports, the commuter traffic daily moving into and out of Delhi|New Delhi from all these corridors was expected to increase from the level of 1.33 lakh trips in 1973 to 1.98 lakh trips in 1976 and more than 3.78 lakh trips in 1981.

4.3 The commuters in the Delhi urban area were already served, since 1975, with limited suburban service known as 'Parikrama Service' hauled by diesel traction on the Ring Railway with a route km. of 36. There were eight circular trains per day and

*1. Delhi-Ghaziabad.
2. Delhi-Sonepat-Panipat.
3. Delhi-Tughlakabad-Palwal.
4. Delhi-Shakurbasti-Rohtak.
5. Delhi-Gurgaon-Rewari.

fares ranging from Re. 0.30 (for the lowest slab 1—6 km.) to Re. 0.55 (for the highest slab distance 14-15 km.) and a monthly season ticket at Rs. 14.95 were charged. This Ring service was, however, poorly patronised right from its commencement in 1975, the occupation ratio being 28 to 50 per cent. Except those whose residence and office were close to the railway line, the larger number of commuters preferred to travel by the direct road routes served by bus as rail-cum-road travel involved longer transit time. Besides, this service being less frequent, did not connect any of the main points on the corridors of commuter traffic such as Shakurbasti, Tughlakabad, Delhi or Ghaziabad referred to above.

4.4 During the period from March 1976 to March 1977, the commuters performed only 72.625 trips per month on average and the operations of this ring (Parikrama) service resulted in a loss of Rs. 15,700 per month.

4.5 The Ministry of Railways (Railway Board) had also apprised the Central Government of the poor utilisation of the circular line.

4.6 The proposal of MTP (Railway) made in 1977 for the introduction of EMUs by electrification of Ring Railway and the spurs connecting the commuter centres at Shakurbasti, Tughlakabad, etc. remained under the consideration of the Railway Board and the Planning Commission till June 1980 when, on the recommendation of Railway Board, the Planning Commission approved the project for electrification of ring railway-track with spurs to Shakurbasti and Tughlakabad with the main object of making these facilities available by June 1982 for Asian Games 1982. The proposal envisaged running of 110 trains per day for an estimated 2.86 lakh passengers per day. The Planning Commission, while approving the scheme made two important observations : (i) Suitable feeder bus services must be planned and provided between selected heavy commuter centres in the city to the nearest station on Ring Railway which the Ministry of Shipping and Transport, on behalf of the Delhi Transport Corporation (DTC), agreed to provide. (ii) The fare structures should be cost based and fixed to obviate the need for any subsidy from the Government for the operation of the EMU services.

4.7 This project was started on Urgency Certificate amounting to Rs. 28 crores in December 1980. The latest estimated cost

of this project was Rs. 31.26 crores against which the actual expenditure booked was Rs. 31.65 crores till June 1983. The revised estimated cost of Rs. 31.26 crores as well as the actuals did not, however, include the provision of Rs. 1.32 crores for the cost of land admeasuring 184.99 acres (82.2 Hectares) near Ghaziabad for the construction of Car shed for servicing EMUs, though this item (land) formed an integral part of this project and was included in urgency certificate for Rs. 28 crores.

4.8 For running the EMU services (110 trains per day), 12 rakes of 6 car units were manufactured and supplied by ICF at an estimated cost of Rs. 8.57 crores between January 1982 and October 1982.

4.9 The electrification of the Ring Railway track and other facilities were completed by June 1982 and the EMU services commenced on the Ring Railway with effect from 15th August 1982. Keeping in view the need for a cost based fare structure, the commuters were charged a flat rate of Re. 1 per ticket and Rs. 24 per monthly season ticket. The DTC ran feeder bus services adding a further charge of Re. 0.30—0.40 per trip. However, due to poor utilisation of services specially during non-peak-hours, against 110 trains per day, only 12 trains (6 clock wise and 6 anti-clock wise direction from Nizamuddin Station) were run replacing eight circular trains previously run with diesel traction. The occupancy ratio of these trains ranged from 16 to 27 per cent and only 4 of the 12 rakes of EMUs were utilised for this service. One of the 12 services in clock-wise direction terminated in the middle of the circular route daily at Patel Nagar (20 km.) at 19 hours and later hauled empty to Nizamuddin (20 km.). Besides, one of the EMU rakes was hauled empty from Nizamuddin to the EMU car shed at Ghaziabad (18 km.) for servicing and return to Nizamuddin after servicing daily.

4.10 The monthly sale of tickets which were 1,07,721 during November 1982 declined to 37.988* in February 1983. The monthly earnings from the EMU Service which was around Rs. 75,571 during the Asiad months November-December 1982 came down to Rs. 49,838 in February 1983. When the earnings per month were around Rs. 75,571, the monthly expenditure was Rs. 5.99 lakhs (excluding interest and depreciation) in the haulage of 12 EMU services. The empty haulage of the last service from Patel Nagar Station to Nizamuddin and

*69,590 trips per month on average.

of one EMU rake, by rotation, from Nizamuddin to Ghaziabad and back daily, involves a recurring loss of Rs. 0.80 lakh per month from October 1982. As there was no further increase in the EMU services over the Ring Railway, the remaining 8 rakes were transferred to Eastern Railway for use in their suburban services in February 1983.

4.11 Lack of patronage even for the four existing rakes, led to EMUs earning only 158 km. per day as compared to 295-300 km. per day earned by similar EMUs in their service on Eastern Railway. As only 12 services are run, the capacity for 110 EMU trains created with an investment of Rs. 31.26 crores on the ring railway was considerably under utilised resulting in a recurring loss of Rs. 6.04 lakhs per month on the operation of EMUs and its empty haulage.

4.12 The EMU services were not extended to the electrified radial sections connecting the important commuter centres of Shakurbasti and Tughlakabad though envisaged in the project estimates approved by the Planning Commission and Ministry of Railways (Railway Board) in 1980. Even on electrified New Delhi-Delhi-Ghaziabad sections, proposed for running EMU services in the project Report of 1977, these services are not run, though the EMUs were being hauled empty over this section daily for getting them serviced in the car shed located near Ghaziabad. At the same time about 27 shuttles, mainly hauled by Diesel traction with ordinary passenger coaches packed to maximum capacity, continue to run in these sections. Thus, the truncated EMU project is not the one conceived in the earlier projections.

4.13 The Planning Commission in consultation with the Ministry of Railways (Railway Board) set up a Committee in January 1983 to investigate into the reasons for the failure of EMU services to attract the commuters. According to the findings of the Committee, the factors responsible for the poor utilisation of EMU services were (i) inaccessibility of the ring railway stations for a large number of commuters, (ii) higher fares (iii) longer transit time as compared with direct bus routes, (iv) inadequate frequency of the trains, particularly in peak periods (v) non-extension of EMU service over the spurs connecting Shakurbasti and Tughlakabad which alone was estimated to serve about 0.36 lakh (12.6 per cent) out of the anticipated 2.86 lakh commuters daily.

4.14 A review in audit of this project as executed and completed by August 1982 disclosed that important items of improved signalling works included in the project report sanctioned under agency certificate of November 1980, such as provision of Centralised Traffic Control System (CTC) in Delhi area, automatic block system with continuous track circuiting in the sections of ring railway connecting the spurs towards Tughlakabad, Shakurbasti and Ghaziabad and certain Civil Engineering Works such as doubling work beyond Rampura Cabin towards Shakurbasti, provision of high level platforms, inter connecting cross over between main line and the avoiding loops to Ghaziabad and Lajpat Nagar, and other reception facilities for EMUs at Okhla and Tughlakabad were deleted in the course of execution in pursuance of the instructions from Railway Board in August-October 1981 to reduce the scope of the project. These modifications, apart from reducing the capacity of the ring section to 50 from the projected 110 EMU trains per day, rendered surplus several items of stores such as cables, steel, ballast etc. worth Rs. 1.90 crores procured for the project on the basis of original estimate of November 1980. A brief account of these items is given in annexure VI.

4.15 Though the truncated project was completed and EMU service started from 15th August 1982, the strength of the construction organisation was not reduced significantly till January 1983 as may be seen from the following table :—

Position at the end of	Gazetted	Non-Gazetted	Temporary Labour
July 1982	46	312	2343
December 1982	45	266	2001
January 1983	11	175	923
September 1983	8	142	518

The continuance of the Metro Construction Organisation with such large number of staff even after January 1983 as shown above is prima facie not justified.

4.16 Similarly, the staff strength (including temporary labour) of car shed at Ghaziabad was 265 during October 1982 when the EMU holding was at the level of 12 rakes (72 coaches). Even after the transfer of 8 rakes to Eastern Railwy in February

1983, no corresponding reduction in staff was made, their strength as at the end of April 1983 still being 203.

4.17 Thus, while on one hand, several items of improved signalling and Civil Engineering Works provided in the original project estimate were given up during execution thereby curtailing the facilities originally intended to extend the EMU services over the electrified radial sections, the provision made in the estimate were further diverted for items of stores etc. on the basis of original indents for the works included in the project as referred to above and for the maintenance of a heavy establishment of MTP Organisation for this project at Delhi.

4.18 The Ring Railway project has been undertaken by the Metropolitan Transport Project under the administrative control and direction of the Ministry of Railways (Railway Board) and is manned by the Railways. It has been decided recently, (in 1981-82) on the recommendations of the National Transport Policy Committee, that Ministry of Works and Housing would be the controlling Ministry of the Agency which will operate the EMU services in Delhi. However, the series of modification and curtailment of the facilities envisaged in the original project were carried out by the Ministry of Railways (Railway Board) themselves without consulting either the Ministry of Works and Housing or the Planning Commission.

4.19 The following points arise in this connection :

(i) Though the introduction of EMU services to cater to the commuter traffic of Delhi|New Delhi was justified, the major streams of traffic from the corridors connecting Delhi|New Delhi to Shakurbasti, Tughlakabad, Ghaziabad and Sonepat were not covered. The Project Report of MTP submitted to the Ministry of Railways (Railway Board) and Planning Commission in 1977 brought out this fact and stressed the need for running the EMU services mainly to connect these corridors; yet the Planning Commission and Ministry of Railways (Railway Board) approved in 1980 investment on electrification and running of EMU services on the sections of Ring Railway and two spurs (Shakurbasti and Tughlakabad) only. Dropping of extension of EMU service even on the two spurs in October 1981, left out the main stream of traffic from the purview of the service.

(ii) Factors leading to poor patronage of ring railway were very much in the knowledge of Ministry of Railways (Railway Board) as the Diesel hauled circular trains on the same sections were operated during 1975 to 1981. Nevertheless, the EMU services were introduced on these very sections at an estimated (revised) cost of over Rs. 31.26 crores to synchronise it with Asian Games 1982.

(iii) Though the project as approved by the Government in 1980, had envisaged integration of EMU services on the ring sections with connections to corridors, (viz. Shakurbasti and Tughlakabad) these extensions were subsequently dropped resulting in a major modification of the project, affecting appreciably the commuter traffic and the viability of the EMU services.

(iv) The cost based fare structure introduced at the instance of Planning Commission and Railway Board was at much higher level than those for the earlier diesel hauled Parikrama Service. As a result, the commuter traffic dropped to levels, lower than that attained in the same sections prior to electrification (i.e. from about 72,626 trips in 1977 to about 69,590 trips in 1983). The net loss which was Rs. 15,700 per month prior to electrification increased to Rs. 6.04 lakhs per month after electrification.

(v) The heavy loss in running the EMU services could have been reduced considerably if the services were rescheduled and reorganised to operate from one end of the corridor to the other end via Delhi-New Delhi so as to eliminate the existing empty haulage of EMU rakes and some of the shuttles hauled by Diesel traction in these sections.

(vi) Though the deletion of certain items of important works resulted in reduction of line capacity from 110 EMU trains per day to 50 trains the estimated project costs increased from Rs. 28 crores to Rs. 31.26 crores and heavily congested traffic corridors were left out from such services.

(vii) Stores worth Rs. 1.90 crores not relevant for the project has been procured.

STATEMENT

Details of Fly over/Road over bridges constructed by Railway for use on the occasion of Asian Games, November 1982

Sl. No.	Name of work	Estimated cost (Rs. in lakhs)	Due date of completion	Actual date of completion	Actual expenditure as on 30th June, 1983 (Rs. in lakhs)	Remarks
1	2	3	4	5	6	7
1.	Road over Bridge Jail Road	193.65	16-4-82	30-9-82 6-11-82	137.65	
2.	Road over Bridge School lane	128.35	8-1-82	30-6-82 4-11-82	103.91	
3.	Road over Bridge Sewa Nagar	404.22	3-5-82	14-8-82	257.82	
	Details of further Fly over/Road widening works executed by the Chief Engineer (Construction) for use on the occasion of Asian Games, November 1982.					
1.	Road over bridge on outer ring road near Shakurbasti.	62.05 (A)	29-9-81	28-2-82 16-9-82	57.25	

1	2	3	4	5	6	7
2.	Road over bridge on outer ring road between Azadpur and Badli	64.47 (B)	24-10-81	15-6-82 6-9-82	48.73	
3.	Widening of existing road over bridge—Queens Road	452.82	23-3-83	In progress	138.50	
4.	Road over bridge—Ashram	70.83 (C)	19-1-82	31-3-82	16.05	
5.	Widening of road over bridge—Naraina . .	58.87 (D)	19-1-82	31-3-82 17-11-82	39.43	
6.	Widening of road over bridge inner Ring Road—Azadpur	41.94 (E)	11-11-81	30-6-82	25.33	
7.	Widening of road over bridge inner Road—Shakurbasti	53.52 (F)	18-7-81	15-6-82	27.74	
8.	Provision of second approach to New Delhi Railway Station	747.00	30-6-82	30-6-82	696.44 (as on 28-2-83)	

1	2	3	4	5	6	7
9.	Ring Railway					
	(i) Urgency Certificate	2800	..	..	3408.00 (upto 28-2-83)	
	(ii) Revised Etstimate	3418	..	..	3575.22 (as on 30-6-83)	

(A) Includes Rs. 16.38 lakhs as Capitalised value of Repairs and Maintenance.

(B) Includes Rs.17.03 lakhs Do.

(C) Includes Rs. 22.48 lakhs Do.

(D) Includes Rs.19.54 lakhs Do.

(E) Includes Rs.13.97 lakhs Do.

(F) Includes Rs.17.72 lakhs Do.

CHAPTER III

TRACK AND BRIDGES

5. Track Renewals

I. *Introduction*

The track length of the Indian Railways on 31st March 1982 was 75,964 kms. consisting of three different gauges—BG (45,896 kms.), MG (25,822 kms.) and NG (4,246 kms.). The investment on track, which is the basic infrastructure of the railway system, was Rs. 2,104.63 crores constituting about 27 per cent of the total value (Rs. 7,906.86 crores) of Railways' assets. The progressive deployment of high payload bogie wagons, heavier and more powerful diesel and electric locomotives and increase in the number and length of trains have had the effect of subjecting the track to more stress and strain. The need to tone up its condition through timely renewal of worn out/obsolete rails, etc. cannot be over emphasised.

A review in audit of the track renewal performance of the Railways revealed the following:

II. *Track renewal programmes and achievements*

The maintenance of track in good fettle calls for its renewals in a cycle of 20-30 years. Under the existing policy of the Railways the requirements of track renewals are assessed annually, taking into account age and condition of rail, sleepers etc. in the track and other relevant factors. The renewals are classified as primary and secondary on the basis of traffic density, speed etc. and taking into account the category of line-main or branch line. According to the Railways' own assessment, renewals of 13,048 kms. (7,788 kms. primary and 5,260 kms.) secondary were due but not carried out till 1979-80.

The average annual replacement of track during the different plan periods was as follows :

Plan period	Average annual renewals		
	Primary	Secondary	Total
		(in kms.)	
IIIrd Plan Years (1961-66) . . .	2600	620	3220
Inter Plan Years (1966-69) . . .	1700	500	2200
IVth Plan Years (1969-74) . . .	1300	360	1660
Vth Plan Years (1974-78) . . .	950	290	1240
Inter Plan Years (1978-79) . . .	730	276	1006
(1979-80) . .	765	210	975

As a result of the declining trend of track renewal over various plan periods the accumulated arrears of track renewal increased considerably to 13,048 kms. (17.2 per cent of the total track length) at the beginning of the Sixth Plan. Against the Sixth Plan target of track renewal of 14,000 kms. (10,000 kms. primary and 4,000 kms. secondary inclusive of arisings during the Plan) at a cost of Rs. 500 crores, the actual progress during the first three years was only 4,220 kms. (30 per cent) as detailed below:

Year	Progress of renewals (in kms.)		
	Primary	Secondary	Total
1980-81	880	216	1096
1981-82	1270	293	1563
1982-83	1250	311	1561
1983-84	4500	1650	6150
1984-85		(expected)	

The slippage in the annual targets resulted in further accumulation of arrears to 19,007 kms. in March 1982, of which 9,925 kms. were overdue for renewals by 5 years, 3,048 kms. by three years and the balance for one year. Taking into account the renewals carried out up to 1982-83, the targets for the

next two years and the fresh arisings, arrears at the end of the current plan would work out to 18,678 kms. as shown below:

(Figures in kms)

	Primary	Secondary	Total
Arrears of track renewals as in April 1980.	7,788	5,260	13,048
Renewals done during 1980-81 to 1982-83 .	3,400	820	4,220
Renewal targets for 1983-84 and 1984-85 .	4,500	1,650	6,150
Arising of track renewals during VIth plan .	11,500	4,500	16,000
Estimated arrears at the end of VIth Plan (April 1985) .	11,388	7,290	18,678

The accumulation of arrears in track renewals is attributed by the Ministry of Railways (Railway Board) to inadequate availability of funds and materials. The position in this regard is mentioned in the succeeding paras.

III. *Expenditure on track renewals*

The cost of track renewals is met from Depreciation Reserve Fund (DRF). The expenditure on track renewal during 1974-75 to 1982-83 compared with the total expenditure from DRF as under :

Year	Total expenditure from DRF including track renewal	Expenditure on track renewal	Percentage of Col.(3) to Col.(2)
(1)	(2)	(3)	(4)
	(in crores of rupees)		
1974-75	113	50	44.25
1975-76	125	54	43.2
1976-77	125	60	48.0
1977-78	118	63	53.0
1978-79	136	74	54.41
1979-80	187	89	47.59
1980-81	279	124	44.44
1981-82	504	193	38.29
1982-83	708	246	34.79

Although the expenditure on track renewals increased from Rs. 74 crores in 1978-79 to Rs. 246 crores in 1982-83, the

expenditure on track renewals as a percentage of total expenditure from DRF has been gradually declining from 54.41 per cent in 1978-79 to 34.79 per cent in 1982-83. During the first three years of the Sixth Plan progress of track renewal (4,220 kms.) in physical terms was just over 30 per cent of the Sixth Plan target (14,000 kms.) while the actual expenditure in three years exceeded the total five year Plan provision of Rs. 500 crores by Rs. 63 crores. During 1979-80 the expenditure on track renewals was Rs. 89 crores for 975 kms. (Rs. 9.13 lakhs per km.). During 1982-83 the expenditure on track renewal was Rs. 246 crores for 1,561 kms. (Rs. 15.76 lakhs per km.). This brings out that the cost of renewal per km. increased by about 73 per cent in 1982-83 over 1979-80 prices. In order to complete the balance 9,780 kms. (target 14,000 kms. less 4,220 kms. completed up to 1982-83) of track renewals during the next two years of the Plan period the investment at 1982-83 prices would be of the order of Rs. 1541 crores.

The budget for 1983-84 provides a physical target of 1,810 kms. of track renewal for which a provision of Rs. 268 crores has been made. At this provision, the average cost of renewals per km. works out to Rs. 14.28 lakhs. The average cost at which track renewal was done in 1982-83 was Rs. 15.76 lakhs per km. Thus, provision made even during 1983-84 has been inadequate.

The arrears of track renewals at the end of the Sixth Plan are estimated at 18,678 kms. Fund requirements for completing these renewals at 1982-83 prices would be about Rs. 2,940 crores

IV. *Repercussions of postponement of renewals*

The mounting backlog of renewals led to imposition of speed restriction over a longer track length. The total track length under speed restriction increased from 1,996 kms. in 1977-78 to 2,765 kms. in 1982-83. The track under speed restriction being interspersed with non-restricted stretches, train speeds are subjected to frequent retardation and acceleration involving increased fuel consumption which has been assessed (steam traction) at Rs. 10.50 per goods train and Rs. 9 per passenger train per day in the case of North Eastern* Railway.

*The financial implication of speed restrictions imposed on 76 days during 1980-81 on Mailani-Dudhwa, a light section of 42.6 kms. (Lucknow Division) has been estimated at Rs.10,830 for the daily average of 10 passenger and 5 goodstrains run on the section.

The cost of extra fuel consumption on this account has not been computed by the Railways.

Apart from overall increase in maintenance inputs, delayed renewals also led to rail fractures which is a potential safety hazard. Rail fractures are estimated to have gone up from 2,293 in 1977-78 to 4,900 in 1981-82 and the number of interruptions to through traffic movement increased from 768 in 1977-78 to 2,574 in 1981-82. Similarly, derailments due to track defects are reported to have increased from 22 in 1978-79 to 39 in 1981-82.

V. *Rails*

Rails and sleepers are the main requirements for track renewals. For rails Bhilai Steel Plant (BSP) is presently the only indigenous source. Indian Iron and Steel Co. (IISCO) and Tata Iron and Steel Co. (TISCO) who had been supplying MG rails (37 kg./30 kg.) have stopped (March 1979 and April 1982) rolling rails.

BSP has an annual capacity of 5 lakh tonnes of BG rails (60 kg./52 kg./45 kg.) but about 50 per cent thereof is earmarked for structurals. Though in 1972-73 and 1973-74, the Railways' requirements of 2.30 and 2.18 lakh tonnes, were within the capacity (2.5 lakh tonnes) set aside for rails, supplies effected were only to the extent of 2 lakh and 1.50 lakh tonnes respectively. In the subsequent period 1974-75 to 1978-79 the Railways' planned requiremnts were even below 2 lakh tonnes and actual supply was still less. As a result, Railways' requirements during 1979-80 to 1982-83 which had accumulated shot up beyond BSP's capacity (2.5 lakh tonnes) but supplies continued to be below 2 lakh tonnes per annum as would be seen from the details given below:

Year	Railways' requirements	Actual supply
	(Figures in lakh tonnes)	
1972-73	2.30	2.00
1973-74	2.18	1.50
1974-75	1.65	1.46
1975-76	1.10	0.54
1976-77	0.83	0.68
1977-78	1.40	1.37
1978-79	1.97	1.47
1979-80	2.65	1.70
1980-81	2.78	1.75
1981-82	2.90	1.95
1982-83	3.15	1.95

Reasons for short supply of rails are:

(a) reluctance of the steel plant to roll rails, as the prices allowed are not considered remunerative enough, compared to other steel materials,

(b) diversion of rail rolling capacity for other items, and

(c) delay in placement of orders by the Railways (instances in Annexure VII).

It is relevant to mention that there had been heavy accumulation of finished steel products (other than rails) in the steel plants.

The plant has been rolling mostly heavier (60 kg./52 kg.) rails and small quantities of lighter (45 kg.) rails. The production plan for 1983-84 envisages 50 per cent of the requirements of lighter rails. As a result, the Railways are forced to either use heavier rails in lighter section or import lighter rails at higher costs.

Inadequate supplies from BSP led to the Railways resorting to import of BG rails. Imports were also resorted to for MG rails primarily because of the reluctance of IISCO and TISCO to produce these sections. From 1979-80, import of rails has been as shown at page 57.

Year	Quantity						Foreign exchange cost		
	B.G.			M.G.		Total	BG	MG	Total
	60 kg.	52 kg.	45 kg.	37 kg.	30 kg.				(Rs. in crores)
	(in tonnes)								
1979-80	20,000	..	..	..	25,000	45,000	9.16	7.14	16.30
1980-81	6,600	22,000	..	..	..	28,600	12.66	..	12.66
1981-82	800	15,000	..	..	15,400	31,200	5.48	6.28	11.76
1982-83	..	10,000	..	..	..	10,000	3.36	..	3.36
1983-84	..	25,000	10,000	20,000	5,000	60,000*	..	..	18.20 (estimated)
Total :	27,400	72,000	10,000	20,000	45,400	1,74,800			62.28

*Tender floated in August 1983.

The problem of accumulation of steel products on account of mismatch of the product mix of the steel plants and the requirements of the consuming sectors, leading to costlier imports, has been noted in the annual plan document for 1983-84, (C & F cost per tonne being about Rs. 4,300 against indigenous price of Rs. 2,510).

VI. *Sleepers*

Sleepers used on the Railways are of multiple types viz., wooden, steel trough|cast iron and concrete. With the steady depletion of forest resources the availability of wooden sleepers has been fast declining. For steel sleepers, Durgapur Steel Plant (DSP) has a production capacity of 10 lakh numbers (75,000 tonnes) per annum to meet the Railways' requirements. There has, however, all along been slippages in supplies which ranged between 2.77 and 7.75 lakh numbers during 1976-77 to 1982-83 as detailed below:

Year	Actual supply (Nos. in lakhs)
1976-77	3.72
1977-78	7.00
1978-79	6.80
1979-80	7.75
1980-81	2.77
1981-82	3.30
1982-83 (upto December)	2.52

Due to paucity of wooden|steel sleepers, cast iron sleepers (CST-9) though not suitable for high density and high speed routes, continue to be used in large number (about 45 per cent of the track is presently laid with such sleepers). Of the monthly requirement of about 20,000 tonnes of pig iron for CST-9 sleepers, Steel Authority of India (SAIL) supplies about 7,000 tonnes, representing only 35 per cent of the requirement. The backlog in supply of about 60-70 thousand tonnes is being bridged by import of 57,140 tonnes of pig iron during 1983-84 at higher cost involving erosion of available funds.

The Railway Accident Inquiry Committee (1968) had recommended introduction of heavier prestressed concrete sleepers on heavy traffic density and high speed routes. Out of

23 factories (including two in Railway Sector) with a total installed capacity of 1.35 million sleepers, 15 units have reached production stage. The total track length laid with concrete sleepers during 1974-75 to 1982-83 is only 1,305 kms. against about 30,000 kms. programmed by the turn of this century.

Twelve sleeper relaying machines procured at a cost of Rs. 3.13 crores, remained underutilised due to non-availability of concrete sleepers as well as due to inadequate availability of traffic blocks (ranging between 43 minutes and 2.28 hours on average per day—details in Annexure VIII).

VII. *Utilisation of resources*

While constraints of funds and materials are stated to have affected the progress of track renewals, the available resources were not put to the best productive use due to lack of proper planning and delayed execution of works. Some instances are given below:

(a) Delay in execution of track renewel works on Railways [vide instances in Annexure No. IX (i)] involved cost escalations. Out of 205 works programmed during 1974-75 to 1979-80 on Central Railway, 70 works [yearwise break up in Annexure IX(ii)] await completion. Delay in execution of the works meant locking up of both material and staff. With better planning and setting up of proper priorities the delays could have been minimised.

(b) For disposal of material released from track renewal works, a Material Disposal Cell is in operation since 1975|1976 on Southern and Western Railways, involving an outlay of about Rs. 7 lakhs per annum. The quantum of disposal, however, continues to be at the same level as prior to formation of the cell, involving an unproductive burden on the funds available for track renewals.

(c) The yard stick prescribed (1967) by the Ministry of Railways (Railway Board) envisages creation of separate posts of an Assistant Engineer (AEN) and a Divisional Engineer (DEN) for track renewal works costing above Rs. 40-50 lakhs and Rs. 1.50 crores respectively in a year in a division. As the average cost of track renewal of Rs. 15.76 lakhs per

km. in 1982-83 is about 11.5 times more than that (Rs. 1.34 lakhs per km.) during the relevant period (1967-69), the existing monetary limits of Rs. 40-50 lakhs for creation of post of an AEN and Rs. 1.50 crores for DEN are equivalent to Rs. 4 lakhs and Rs. 13 lakhs in real terms. In other words, the norm for the posts of AEN|DEN has been reduced from 37|111 kms. to just 3|10 kms. per annum respectively. Fixation of yard stick based on cost of renewals instead of in terms of work content in physical terms led to underutilisation of these posts.

(d) Track renewals between Garhi Manikpur and Unnao stations on Northern Railway commenced in September 1973 was abandoned in March 1979 but engagement of labour continued till January 1982, involving an expenditure of Rs. 6.2 lakhs. The left over materials (Cost : Rs. 96 lakhs) when transferred (December 1979-August 1981) to other works disclosed shortages worth Rs. 5.24 lakhs.

(e) Permanent way materials worth Rs. 10.11 lakhs procured (1976) by Western Railway on the basis of indents against anticipated requirements remained unused by and large for 6-7 years due to subsequent change of track layout, involving blockage of available resources.

(f) Despite dearth of wooden sleepers, such sleepers worth Rs. 60 lakhs were collected far in advance of the need of gauge conversion (Darbhanga-Samastipur) and remained unused due to deferment of the work (Cf. Para 5 of C and AG's Advance Report (Railways) 1981-82).

(g) Through sleeper and complete track renewals in Poona-Moraj and Vikarabad-Parli sections respectively of South Central Railways were carried out (August 1982 and March 1980) at a cost of Rs. 91.71 lakhs although the condition of the track warranted only less costly casual renewals of a limited number of rails and sleepers.

Summing up

(i) The imperative need for keeping the track in good fettle through timely renewals had not been given the considerations it deserved.

(ii) A stage has now been reached when the programmed track renewals have not been able to even catch up arisings. At the end of Sixth Plan arrears in track renewals would be about 18,678 kms. i.e. about 24.5 per cent of running track.

(iii) The steep increase (73 per cent in 1982-83 over 1979-80 prices) in the cost of renewals rendered the financial allocations inadequate for the physical target set for the Sixth Plan. During the first three years of the Sixth Plan progress of renewals (4,220 kms.) was about 30 per cent of the target 14,000 kms.), while actual expenditure exceeded the plan provision by Rs. 63 crores. For the estimated arrear renewals of 18,678 kms. at the end of the Sixth Plan, fund requirements would be about Rs. 2,940 crores (at 1982-83 prices).

(iv) Delays in renewals have affected train movements and safety. There has been steady increase in track length covered by speed restrictions (from 1,996 kms. in 1977-78 to 2,765 kms. in 1982-83), rail fractures (from 2,293 in 1977-78 to 4,900 in 1981-82), interruptions (from 768 in 1977-78 to 2,574 in 1981-82) to through traffic movement and derailments (from 22 in 1978-79 to 39 in 1981-82), involving financial implications by way of increased repairs, maintenance and operation cost.

(v) The manufacturers of MG rails having been elbowed out of production, MG system of Railways constituting about 1|3rd of the track length, has been rendered entirely dependent on imports.

(vi) During 1974-75 to 1978-79 the Railways' intake (ranging between 0.54 and 1.46 lakh tonnes) of BG rails was erratic and less than even BSP's capacity (2.5 lakh tonnes) earmarked for rail production. In the subsequent period (1979-80 to 1982-83) the requirements (ranging between 2,65 and 3.15 lakh tonnes) went up but actual supplies from BSP were even less than their capacity. Proper matching of Railways requirements and production of rails by the Steel Plant could reduce continuous dependence on costlier imports Quantum of imports in the last 5 years is worth about Rs. 62.28 crores.

(vii) The available thin resources have been spread far and wide by simultaneous undertaking of more works than those could be completed within a time frame with the resources available.

(viii) Delays in execution of track renewal works involving prolonged maintenance of staff, excess provisioning of staff in absence of realistic norm and lack of proper planning for the works and material procurement, involved unproductive utilisation of the available resources and affected the progress of renewals.

(ix) During 1974-75 to 1982-83 track length laid with concrete sleepers was only 1,305 kms. as against 30,000 kms. programmed by the turn of this century.

(x) The track relaying machines have not been put to optimum use for want of traffic blocks, involving unproductive staff cost.

6. Rehabilitation of Railway Bridges

I. *Introduction*

The Railway Accident Enquiry Committee, 1968 (Wanchoo Committee) had urged that bridges considered 'distressed' should be rehabilitated on a programmed basis, higher priority being given to structures which require to be re-built on age-cum-condition basis. Further, the Railway Accident Enquiry Committee 1978 (Sikri Committee) observed that a special Programme designed to complete the rehabilitation of these bridges within a specified period was called for. No such time bound programme for rehabilitation of bridges has been designed as yet (September 1983).

According to the Report of the Working Group on Railways for Sixth Five Year Plan, the total number of bridges on Railways as on 31st March 1979 was 1,11,431 (9,312 were Major Bridges and 1,02,119 were Minor Bridges). Bridges are expected to have a life span varying from 60—100 years. Most of the bridges on Indian Railways have outlived their normal span of life and require to be strengthened/rebuilt in view of heavier trains being run on trunk routes and heavier locos plying on branch lines.

The Railway Accident Enquiry Committee (1978) had identified 3553* bridges as distressed, at the end of March 1978. Out of these only 496* were rehabilitated upto 31st March 1982, leaving a balance of 3057* bridges remaining to be rehabilitated. Thus only 14 per cent of distressed bridges were rehabilitated during a period of 4 years leaving 86 per cent in arrears.

II. Evolution of Bridge Organisation

A separate Organisation for looking after the rehabilitation of "Vulnerable and Problem Bridges" was first set up on the Railways in 1957. The staff strength of this organisation had been increasing from time to time, and a full-fledged Bridge Organisation headed by Chief Engineer, Bridges/Additional Chief Engineer, Bridges had come into being since 1980 on most of the Railways. This organisation cost the Railways to the tune of Rs. 6.24 crores during 1979-80, Rs. 8.86 crores during 1980-81 and Rs. 7.42 crores during 1981-82. Despite continued strengthening of the Bridge Organisation in the Railways over the years, no time bound programme for rehabilitation of distressed bridges has been drawn up, as had been recommended by the Railway Accident Enquiry Committee (1978). As a result, rehabilitation work of 86 per cent of the distressed bridges has fallen into arrears.

The Ministry of Railways (Railway Board) stated (November 1983) that a perspective plan is proposed to be evolved for the VII Plan.

III. Plan Allocation

The working group for Sixth Five Year Plan (1980—85) had assessed that the Bridges rehabilitation work would need an investment of Rs. 35 crores per year, as against the earlier level of 12 crores per year. A review of actual progress of expenditure on this account vis-a-vis Revised Estimates of the year revealed savings during the years 1976-77, 1978-79 and 1980-81. to the extent of Rs. 1.76 crores, Rs. 2.87 crores and Rs. 1.08 crores out of Rs. 9.72 crores, Rs. 12.29 crores and Rs. 12.64 crores respectively. A railway-wise analysis showed

*Railway wise details are given in Annexure X.

continued surrender of funds on Northern and North east Frontier Railways, as indicated below :—

Year	Northern Railway (In thousands of rupees)	Northeast Frontier Railways (In thousands of rupees)
1976-77	2,81	62
1977-78	1,42	6,03
1978-79	11,17	8,98
1979-80	6,45	3,43
1980-81	1,05	15,53
1981-82	56	18,92
	23,45	53,51

On Western Railway a comparison of actual expenditure with final grants during the years 1976-77 to 1981-82 showed net surrender (after setting off excesses) of Rs. 424 lakhs.

Non-utilisation of funds to the full extent was stated to be mainly due to non-receipt of materials and slow progress of work. This is indicative of failure on the part of the Railways to monitor the programme of rehabilitation of bridges properly.

IV. Major schemes

A review of execution of the major schemes on the various Railways revealed the following :

(A) North Eastern Railway- -Rebuilding of Kosi Bridge on Barauni-Katihar Section

Kosi bridge on Barauni-Katihar Section opened in July 1902, was due for regirdering in 1962. The proposal for its regirdering mooted in August 1968, were finalised in 1971. The work was planned by Railway Administration to be completed by 1976 at a cost of Rs. 2.57 crores. A full fledged temporary establishment costing Rs. 2.05 lakhs per annum, had been in operation since 1971. This resulted in an expenditure of Rs. 5.42 lakhs on the establishment operated before launching of girders in April 1977. The work is yet (September 1983) to be completed, though expenditure to the tune of Rs. 2.99 crores (against the revised estimated cost of Rs. 3.31 crores) has already been incurred (upto March 1982). The extra expenditure on account of escalation on wages in the meantime (from 1st

May 1972 to 31st December 1976) is assessed at Rs. 26.95 lakhs.

The Railway Administration did not initially contemplate use of imported steel in the re-girdering of this bridge. According to the terms of the agreement executed with a Public Sector Company in December 1972 for manufacture and supply of girders, the Railway Administration was to supply the steel for which the company was required to make payment at Joint Plant Committee (JPC) rates. During execution of the work, due to non-availability of some of the sections from indigenous sources, the Railway Administration felt the need for use of imported steel. Accordingly, imported steel was supplied to the company at JPC rates. In consequence the Railway Administration had to bear extra expenditure of Rs. 9 lakhs representing the difference between the rates of indigenous and imported steel. This is indicative of Railway Administration's failure in initial planning of procurement of steel according to its requirements.

(B) Southern Railway—Regirdering of Bridge No. 1274 across Nethravathi river

An estimate for regirdering of this bridge at a cost of Rs. 67.40 lakhs was sanctioned by the Ministry of Railways (Railway Board) in September 1970 due to loss of camber, high incidence of secondary (deformation) stress and steel girders being of non-standard length. This work was completed in July 1981 at a cost of Rs. 257.26 lakhs involving extra expenditure of Rs. 189.86 lakhs due to escalation of costs in the meantime. The accounts of the work have not yet (October 1983) been closed.

The Railway Administration placed an order in September 1970 on Plant Depot—Mughalsarai for fabrication and supply of 16 bridge girders for this work. On instructions from Railway Board the ordered quantity was reduced to 8 i.e. 50 per cent in December 1970. The Plant Depot, Mughalsarai commenced supply in July 1977 and completed it by July 1978 (more than seven years after sanction of the estimate). For remaining 8 girders the Railway Administration placed an indent on the Director General Supplies & Disposal in January 1971, who in turn placed an order in November 1971, on a Public Sector Company. As per agreement, the company was to procure steel from the Principal Producers on the strength of "Essentiality

Certificate" issued by the Railway, and complete supply of girders by December 1972. However, the company complained from August 1972 onwards about the non-availability of steel in required sections from the Principal Producers despite essentiality certificate issued by the Railway Administration. Thereupon, in June 1976 (after a lapse of 5 years), the Railway Administration decided to undertake the responsibility of procuring steel by themselves, and amended the agreement with the Company accordingly. The Company completed the supplies by July 1981. As a result of the long delay in supply of girders both by the Plant Depot, Mughalsarai, and the Public Sector Company, the Railway Administration had to bear the brunt of escalation in steel cost to the tune of Rs. 70 lakhs approximately. The Public Sector Company has also preferred a claim of Rs. 17.38 lakhs due to wage escalation, and has retained 107.8 tonnes of steel of the value of Rs. 3 lakhs approximately. This may result in further extra expenditure of Rs. 20.38 lakhs to the Railway Administration, if they fail to have the matter settled in their favour.

If the Railway Administration had planned and monitored the supplies of steel properly, not only the extra expenditure incurred in this case would have been avoided, but also an over stressed bridge could have been re-girdered expeditiously, eliminating its inherent risks.

(C) South Eastern Railway-Regirdering and recapping of Mahanadi Bridge

An abstract estimate amounting to Rs. 147.25 lakhs for the above works was sanctioned by the Ministry of Railways (Railway Board) in January 1972. The estimated cost was revised to Rs. 151.86 lakhs in January 1973. The scheduled date of completion was March 1975. Accordingly, provision for staff in the estimate was made for 3 years. The recapping and regirdering was to be done departmentally and the girders (100 feet length) were to be fabricated by trade. Though the tenders were opened in September 1972, the Railway Administration took 14 months in placing orders (December 1973) on the one tenderer, entailing re-scheduling of the completion date from March 1975 to May 1976. The detailed estimate of the project amounting to Rs. 277.14 lakhs was sanctioned by the Ministry of Railways (Railway Board) in January 1975. It was revised to Rs. 376.92 lakhs in September 1977 and again to Rs. 426.56 lakhs in November 1980. The work was completed in February 1981.

The actual expenditure booked to the end of March 1983 was Rs. 463.39 lakhs and the accounts of project are yet to be closed.

The delay in the completion of the work resulted in extra expenditure of Rs. 186.25 lakhs over the first detailed estimate of January 1975. The avoidable expenditure on Pay and Allowances of the project staff for their continuance for more than 4-1|2 years beyond the original date of completion i.e. May 1976, works out to Rs. 101 lakhs.

The fabricators were mainly responsible for a delay of over 21 months (on an average) in supplying each girder. However, no liquidated damages were levied (except a token penalty of Rs. 6,000), while extending the delivery period from May 1976 to January 1981.

Further, the Railway Administration assessed in February 1979 that 278 tonnes of steel valued at Rs. 8.88 lakhs had been issued in excess to the fabricators. Neither the firm has returned the excess quantity of steel nor the cost thereof has yet (September 1983) been recovered from them.

V. Fabrication of bridge girders in Bridge Workshops of Railways

Each of the 9 Zonal Railways has a bridge workshop (2 in case of Northern Railway) for meeting the requirements of steel girders both for maintenance and construction works. Most of these workshops are having facilities for fabrication of bridge girders upto 60 ft. length only. Even the facilities available were not utilised fully in some cases, (Annexure XI). This was one reason for the Railway Administration to depend more upon outside companies for the fabrication of steel girders required for major schemes of regirdering of Railway Bridges. The Railways' dependence on outside agencies not only resulted in delayed execution of railway works as a result of delayed supply of girders, but also led to disputes about the quantities of steel due to be returned to the Railways by these agencies, *vide* paras IV(B) and (C) above.

VI. Speed Restriction

Owing to the failure to implement in a planned manner expeditiously the policy laid down by the two Accident Enquiry Committees (1968 and 1978), regarding rehabilitation of bridges, the works programmes on distressed bridges has fallen into

arrears. As a result of this speed restrictions were frequently imposed on a number of distressed and problem bridges and continued for long periods. This involved frequent retardation and subsequent acceleration of trains, resulting in increased running time and extra fuel consumption. The extent of loss was considerable on this account. Some instances of such loss are given below :—

(i) North Eastern Railway

Kosi Bridge was 66 years old by 1968 when some deterioration in the strength of girders was noticed. As a result of this speed restriction of 8 km. per hour was imposed with effect from 13-8-1968. In February 1970 the speed restriction was revised from 8 kms. per hour to 16 kms. per hour. But one month thereafter in March 1970, the speed restriction of 8 kms. per hour was reimposed, when a thorough inspection, revealed loose rivets to the extent of 38 per cent, against the normal permissible limit of not more than 10 per cent in a joint. Extra fuel consumption to the tune of Rs. 500 per day due to speed restriction has entailed a loss of Rs. 26.86 lakhs during the period from August 1968 to March 1983.

(ii) Southern Railway

Stop dead and proceed restriction was imposed on 20-2-1978 on "Nethravathi Bridge". This was finally removed on 5-2-1982. The continuance of this restriction for a period of 4 years resulted in loss of Rs. 7.38 lakhs on account of extra fuel consumption.

(iii) South-Central Railway

A speed restriction of 45 KMPH was in existence on Krishna and Godavari Bridges from 1939 and 1900 respectively. Further restrictions of 30 KMPH and 25 KMPH respectively were imposed on these two bridges due to weak girders from October 1979. This resulted in loss of Rs. 1.27 lakhs due to extra fuel consumption during October 1979 to March 1982. The restriction is still continuing.

Apart from above instances, there were 39 bridges on Eastern Railway, 19 bridges on North Eastern Railway, 25 bridges on Southern Railway and 70 bridges on Western Railway, where speed restrictions had been imposed due to their distressed condition The resultant loss on account of extra fuel consumption in these cases remains to be assessed by the respective Railway Administrations.

VII. Eastern Railway Cancellation of Trains

The work of replacement of Deck Plates of Span No. 1 and Span Nos. 2 and 3 of Vivekanand Bridge was included in Works Programme for 1976-77 and 1977-78 respectively. The contractor, however, could start the work only from 1-4-1978 due to delay in finalisation of contract, non-availability of materials at the project site, and non-arrangement of block time (during which there is no interruption to work due to movement of trains) over the Section by the Railway Administration. Frequent disturbances occurred due to non-scheduled goods trains being pushed in by the Operating Branch during the block time. Despite belated commencement of the work on 1-4-1978, preplanned block time of 2 hours daily thrice a week on an average over the Section was not arranged by the Railway Administration due to lack of coordination between Engineering and Operating branches. Consequently, one pair of suburban trains was cancelled for 3 days in a week during the period from 1-4-1978 to 1-10-1980.

However, the work for other spans was subsequently carried out without resorting to cancellation of the aforesaid trains. The loss of earnings due to cancellation of the trains during the period from 1-4-1978 to 1-10-1980 is assessed at Rs. 1.09 crores.

Summing up

(1) The Railways have not drawn up any time bound programme for rehabilitation of distressed railway bridges, as recommended by the Railway Accident Enquiry Committees (1968 and 1978).

(2) Out of 3553 bridges identified as distressed as on 31-3-1978 only 496 bridges (14 per cent) had been rehabilitated upto 31-3-1982.

(3) Despite setting up of a fairly large sized Bridge organisation which was regularly enlarged, the progress in rehabilitation of distressed bridges was extremely slow in as much as 86 per cent of the distressed bridges still remained to be rehabilitated.

(4) Though the allotment of funds for bridge work was generally inadequate compared to requirement, even the allotted funds, were not fully utilized, resulting in savings to the extent of Rs. 1.76 crores in 1976-77, Rs. 2.87 crores in 1978-79 and Rs. 1.08 crores in 1980-81 out of Rs. 9.72 crores, Rs. 12.29 crores and Rs. 12.64 crores respectively.

(5) Since most of the Railway Workshops have facilities for fabrication of girders upto 60 ft. only, the Railways have to depend on outside agencies for fabrication of girders beyond 60 ft. length.

(6) The delay in fabrication of girders by the firms and slow progress in execution of work by the Railways resulted in escalation of cost, involving extra expenditure to the tune of Rs. 412 lakhs on three major bridges alone.

(7) Imposition of speed restrictions on distressed bridges till their rehabilitation, results in extra consumption of fuel. The loss on this account in the case of three bridges is assessed at Rs. 35.5 lakhs. There are 153 bridges in which speed restrictions are in force at present.

(8) Injudicious cancellation of trains in the course of replacement work on a bridge resulted in loss of earnings to the tune of Rs. 1.09 crores.

TABLE 1

Year	Metal melted	Good castings	Defective castings		Runners and risers	
	tonnes	tonnes	Qty. tonnes	percen-tage	Qty. tonnes	percen-tage
1978-79	5,599	3,649	11.6	0.207	172	3.075
1979-80	5,700	3,707	12.8	0.224	208	3.641
1980-81	5,919	3,733	13.7	0.231	204	3.446
1981-82	5,888	3,692	12.5	0.212	215	3.652
		14,781				

CHAPTER IV

RAILWAY WORKSHOPS AND PRODUCTION UNITS

7. Eastern Railway—Review of foundries of Jamalpur Workshop

Eastern Railway has four foundries in Jamalpur viz., Brass and White Metal Foundry, Permanent Way Foundry, General Iron Foundry and Steel Foundry.

A review of working of these foundries conducted in Audit revealed high wastages on account of inefficient handling of various processes in castings, lack of supervisory control, low outturn and consequent high consumption of fuel, as discussed in the succeeding paragraphs.

1. Brass and White Metal Foundry (BWF)

1. The fixation of standards|norms for melting loss (viz., loss of metal during melting of metals because of oxidation or volatilization of elements) had been under consideration of the Administration from 1961. The Chief Mechanical Engineer, in consultation with the Chemist and Metallurgist, Jamalpur had proposed a norm of 6 per cent of wastages in 1964, but no decision has been taken so far even after a lapse of 19 years. In the absence of such a norm the control over melting losses appeared to be ineffective inasmuch as the wastage in BWF which was 12.50 per cent in 1978-79 has been progressively rising in subsequent years and in 1981-82, it stood at 15.50 per cent. Details are shown in the following table:—

One of the reasons for high rate of melting loss appears to be the high incidence of 'Ash Metal'* ranging from 17 per cent to 20 per eent, due to spillage of metal during casting, formation of ladle skull, metal penetrating the furnace lining etc. In re-melting the ash metal, the irrecoverable loss of metal is as high as 30 per cent resulting in pushing up the overall percentage of melting loss to 15.5 per cent. It was noticed that on other Railways the arisings of ash metal was nil or negligible, ranging from 0 to 2.8 per cent. The reasons for the high percentage of 'ash metal' and whether they are due to inefficient practices followed in Jamalpur Workshops had not been investigated by the Railway Administration. The possibility of classifying good metal in the form of runners and risers or defective castings as 'ash metal' cannot be ruled out.

In the case of overall percentage of melting loss also, on other Railways, such melting loss ranged between 3.3 per cent and 6.7 per cent during the years 1979-80 to 1981-82 compared to 12.5 to 15.5 per cent in Jamalpur Workshops.

Though the extant rules provide that the outturn of the Foundry should be reviewed daily by the Works Manager, these have not been followed in practice. No attempt has been made by the Railway Administration to analyse the reasons for the high wastage (melting loss). As the metals used in Brass Foundry are generally imported, adequate steps should have been taken to reduce the wastage. Based on the norm of 6 per cent melting loss, the cost of excessive metal loss works out to Rs. 121 lakhs per year.

2. Under-utilisation of capacity

The capacity utilisation of the BWF was to the extent of 70--75 per cent only as shown below :

TABLE 2

Year	Rated capacity (tonnes)	Metal melted (tonnes)	Percentage of utilisation
1978-79	7,900	5,599	70.9
1979-80	7,900	5,700	72.2
1980-81	7,900	5,919	74.9
1981-82	7,900	5,888	74.5

*Ash Metal—A mixture of metal pieces, sand and coke. Regenerated ingotted metal is about 30 to 45 per cent of the charge.

3. Fuel consumption

In November 1975, the Works Manager (Steel) fixed a ratio of 3.3 kg. of outturn (i.e. good castings) per litre of furnace oil. On this basis the fuel consumption for an outturn of 14,781 tonnes (Table 1) during the period April 1978 to March 1982, should have been equivalent to 4,479 kilolitres of furnace oil. As against this, actual fuel consumed (converted into oil equivalent) was 5,763 kilolitres. Thus, foundry consumed 1,284 kilolitres (approximate) of fuel valued at Rs. 7.15 lakhs in excess of the norm fixed by Works Manager (steel).

II. Permanent Way Foundry (PWF)

Mass production of permanent way materials, Brake Blocks, Brake Shoes etc., is undertaken by this foundry. It has 7 cupolas (each with capacity of 5 to 6 tonnes per hour) working on cold blast system.

1. Defective castings

The position of defective castings, runners and risers as a percentage of net outturn (net castings) was as under :—

TABLE 3

Year	Percentage of defective castings	Percentage of runners & risers
1977-78	20.013	19.427
1978-79	21.500	20.294
1979-80	17.997	22.204
1980-81	18.810	21.000
1981-82	22.238	20.421

It will be seen that the percentage of rejections was quite high and was substantially higher in 1981-82. Though the PWF undertakes repetitive jobs of mass production no norms for rejections have been fixed so far. The high incidence of defective castings also indicates that the manufacturing cycle was not properly controlled.

2. Under-utilisation of capacity

The rated capacity of 7 cupolas (4 to 6 tonnes each per hour) may be estimated conservatively as at least 100 tonnes per day i.e. 26,400 tonnes per year. Against this, utilisation varied from 59 to 69 per cent.

3. High fuel consumption

This foundry uses hard coke for melting metal in the cupolas. Fixing of norms for inputs and outturn would be relatively easier than in a jobbing foundry, but no such norms were available.

An analysis of consumption of hard coke and actual outturn achieved for three consecutive years from April 1977 to March 1980 shows that on an average 326 kg. of hard coke was consumed per tonne of melt and 560 kg. per tonne of good casting.

The North Eastern Railway Administration had fixed a target of coke consumption @ 310 kg. per tonne of ferrous castings (good castings) for Izatnagar and Gorakhpur Workshops after trials. Compared to this norm the consumption of hard coke at Jamalpur foundries is about 80 per cent higher though the quality of inputs is similar. Poor quality of lime stone has been stated as one of the factors affecting fuel consumption ; but there was no system of imposing quality control at the source of supply, though laboratory tests conducted at Jamalpur revealed poor quality of supply on a number of occasions.

Even if the actual average consumption of hard coke during the 3 years ending 31st March 1980 is taken as the norm (which would take into account all the local factors) the PWF's specific fuel consumption per tonne of outturn, during the subsequent years viz., 1980-81 and 1981-82, was high as detailed below:

TABLE 4

Year	Total outturn	Total hard coke consumption	Average consumption of previous 3 years	Excess consumption of hard coke
	(tonnes)	(tonnes)		(tonnes)
1980-81 .	10,350	6,256	560 Kg hard coke per tonne of outturn	460
1981-82 .	9,523	5,696		363
Total .	19,873	11,952		823

The money value of excess consumption in 2 years comes to Rs. 3.93 lakhs (approximately).

Similarly, in relation to metal melted, there was excess consumption of 592 tonnes of coke in 1980-81 and 1981-82 compared to the average consumption level achieved in the earlier years.

TABLE 5

Year	Total metal melted in tonnes	Total hard coke consumption in tonnes	Yard-stick consumption	Excess consumption of hard coke in tonnes
1980-81 .	17,461	6,256	326. Kg. per one tonne of melt	564
1981-82 .	17,388	5,696		28
TOTAL .	34,849	11,952		592

Computed on this basis, the value of excess consumption of hard coke was Rs. 2.49 lakhs.

III. *General Iron Foundry (GIF)*

This foundry produces general iron castings. The foundry has 4 cupolas with capacity of 4 to 5 tonnes per hour.

1. Runners and Risers

The percentage of runners and risers over the total metal melted during the period under review was as under :

TABLE 6

Year	Total metal melted (tonnes)	Quantity of runners and risers (tonnes)	Percentage of runners and risers
1977-78	4,285	1,865	43.52
1978-79	4,912	2,263	46.07
1979-80	4,636	2,004	43.22
1980-81	4,173	1,859	44.54
1981-82	4,037	1,666	41.26

The percentage of runners & risers over total metal melted appears very high as compared to PWF (Table 3) affecting the 'on costs' as well as production costs.

2. Rated capacity, target and actual production

On the basis of 5 hours a day and alternate day operation (i.e. 2 cupolas per day) the rated capacity has been estimated at 13,200 tonnes per year. Actual production varied from 31 to 41 per cent during the quinquennium 1977-78 to 1981-82 which was poor compared to Permanent Way Foundry which was also under-utilised.

3. Consumption of fuel

This foundry also has no prescribed norms for fuel consumption.

4. Melting loss

Norms for melting loss have not been fixed in this foundry also. The percentage of defective castings however improved from 1.31 in 1978-79 to 1.01 in 1980-81.

5. Staff strength vis-a-vis out-turn

Against the Railway Board's target of one tonne per man per month, the average out-turn achieved during the period 1977-78 to 1981-82 was only about 0.5 tonne per man per month indicating low rate of productivity.

IV. *Steel Foundry (SF)*

This foundry has :

(1) a ½ ton Electric Furnace, direct-arc melting type, manufactured at Jamalpur and installed in 1961, producing Spheroidal Graphite Cast Iron (SGCI) castings.

(2) a 4-ton Electric Furnace commissioned in September 1967.

1. Man-power utilisation

The out-turn achieved vis-a-vis the staff position during the 5 years from 1977-78 to 1981-82 was as follows :—

TABLE 7

Year	Actual outturn (tonnes)	Number of posts operated
1977-78	724	366
1978-79	717	366
1979-80	616	366
1980-81	690	366
1981-82	625	366

Man-power had been provided on the basis of 0.5 tonne of production per month per man. Accordingly the staff provided were sufficient to give an out-turn of 2,196 tonnes per annum. The target had also been fixed as 2,000 tonnes per annum. The

actual out-turn was only 0.29 tonne per man per month in 1978-79 and 0.19 tonne per man per month in 1981-82. The productivity was far below the norms fixed and the target, indicating excessive utilisation of man-power. The Railway Administration had not taken action to readjust the staff strength keeping in view the actual annual out-turn. Computed on the basis of average out-turn of about 800 tonnes annually achieved, the excess man-power utilised works out to 226 men involving expenditure of Rs. 13.06 lakhs.

One of the reasons for low productivity was the shortafall in heats obtained within the operating hours available and non-utilisation of available 'power'.

2. Power supply and performance

The 4-ton arc furnace normally operates on power supplied by a separate 11 KV feeder of Bihar State Electricity Board augmented by Railway's captive power supply to meet emergencies. Power supply was restricted only during 19.30 to 22.30 hours. The ½ ton furnace had no such restrictions.

Although the daily restrictions on power supply were for a duration of 3 hours only the Railway Administration did not take action to reschedule the working so as to achieve maximum utilisation of the power supply made available. There was a shortfall in the number of heats obtained within the potential production hours available and consequently loss of production. A table showing the maximum number of heats available in a year, heats actually obtained and shortfall compared to the power interruptions is given in Annexure XII. It will be obserevd that the number of heats obtained in the four-ton furnace during the three years 1979-80 to 1981-82 was 1262 heats less than the maximum capacity (2430 heats), equivalent to 6940 production hours, whereas the power interruptions accounted for 2537 hours only. Thus the short-fall in production hours was not wholly attributable to power interruptions.

Similarly in respect of ½ ton furnace the production hours not utilised during the years 1978-79 to 1980-81 were 11,329 against the power interruptions of 3146 hours only.

Summary

The foundry, with about a century of experience behind it, has no clearly established norms as yet for fuel consumption, metal losses, percentage of ash metal in the output of the Brass and While Metal Foundry, runners and risers etc. The heavy

percentages of metal loss in the foundry and excessive fuel consumption indicate absence of control on operations within the foundry.

Brass and White Metal Foundry

The proposals for fixing|revision of norms for BWF has not reached any conclusions even after passage of 19 years.

Metal losses have risen from 12.5 per cent to 15.5 per cent of the metal melted (against the provisional norm of 6 per cent) in the last four years.

The excess loss (over and above 6 per cent) is of the order of Rs. 121 lakhs per year. Much of it represents a serious drain on foreign exchange, as this foundry deals in expensive metals largely imported.

'Ash Metal' forms about 17 to 20 per cent of the output in this workshop, while in other workshops the ash metal arisings is negligible.

The 'Yield ratio' (of good out-turn to metal melted) has declined from 65 per cent to 62.7 per cent in the last four years.

Specific fuel consumption was equivalent to 0.389 kilolitre per tonne of good castings, as against the norm of 0.33 kilolitre. The money value of the excess fuel consumed during the four years comes to Rs. 7.15 lakhs.

Permanent Way Foundry

Percentage of defective castings, 18 per cent in 1979-80 rose to 19 per cent and 22 per cent in the next two years. Production is less than 2|3 of the rated capacity. Specific consumption of hard coke (per tonne of out-turn) was substantially higher in 1980-81 and 1981-82 than in the previous 3 years (560 kg.) In all the five years it was much higher than the corresponding figure for Gorakhpur foundry (310 Kg.).

General Iron Foundry

Percentage of 'runners and risers' is high (41 to 46 per cent).

"Yield ratio" i.e. ratio of good castings to metal melted is about 50 per cent only in most of the years.

Production is only about 31 to 41 per cent of rated capacity (para III.2). Productivity per man was about half the Railway Board's target of 1 tonne per man per month.

Steel Foundry

1. Against a target of 2000 tonnes of fettled castings per year, actual production varied from 539 to 690 tonnes, being lowest in 1982-83.

Output per man per month is less than half the norm of 0.5 tonne per man per month. It has declined sharply in the last 3 years to 0.19 in 1981-82.

2. An analysis of the figures shows that this low production is not wholly or mainly due to power interruptions and hence requires deep probe for corrective/remedial action.

8. Chittaranjan Locomotive Works—Excess consumption of graphite electrodes

The Steel Foundry of Chittaranjan Locomotive Works (CLW) uses graphite electrodes (present day cost Rs. 34.83 per kg.) for melting steel scrap in electric furnaces.

According to the Collaborator's recommendation (1963-64) the optimum consumption of electrodes should be around 5.5-6 kgs. per tonne of metal melted or one tonne of graphite electrodes for every 100 tonnes of castings However, keeping in view the productmix CLW assessed (May 1966) a higher consumption rate of 1.25 tonnes of graphite electrodes for 100 tonnes of castings.

A review in audit of the performance of the Steel Foundry revealed excessive consumption of graphite electrodes during the period from 1969-70 to 1982-83 (upto February 1983) compared to the requirement for the actual output of molten metal and castings at the aforesaid recommended/assessed rates as indicated in the Annexure XIII.

In 1968-69 when metal melted was maximum, the average consumption of electrodes was 5.28 kgs. per tonne of melt, conforming to the Collaborator's specification. In the subsequent years, the average consumption of electrodes registered a steep increase varying between 6.85 and 10.90 kgs., the maximum being in the year (1973-74) of minimum output of molten metal.

The same pattern emerges when the number of heats involved in the quantity of metal melted and the castings outturn

are taken into account. The average consumption of 5.28 kgs. of graphite per tonne of melt corresponding to the maximum of 2512 heats (i.e. 8 per day) in 1968-69 increased to 10.90 kgs for the minimum 1089 heats (3 per day) in 1973-74. Against the maximum production of castings in 1968-69, the average graphite consumption of 13.18 kgs. per tonne almost corresponded to that (12.5 kgs. per tonne) assessed (May 1966) by CLW Administration. In the subsequent years the consumption rate ranged between 16.68 and 28.49 kgs., the maximum (28.49 kgs.) being for the minimum outturn in 1981-82.

In electric arc furnace there has necessarily to be a correlation between consumption of electrodes and power. While the consumption pattern of electricity moved in harmony with the fluctuations in the outturn of castings, consumption of graphite electrodes steadily increased. The average consumption of electrodes was minimum (0.773 tonne per lakh KWH) in the year (1968-69) of best performance and maximum (1.574 per lakh KHW) for minimum production of castings in 1981-82.

The production data as analysed above would establish excessive consumption of electrodes, whether viewed with reference to metal melt, castings outturn and power consumption. Even after allowing for the scrap arisings due to shortening in size and breakages of the electrodes in use, the net excess consumption of electrodes compared to requirements for (a) metal melt, (b) castings outturn at the consumption rate achieved in the best performance year (1968-69) and (c) the corresponding power consumption works out to 510.348, 578.591 and 520.153 tonnes respectively during 1969-70 to 1982-83. This involved a financial implication of Rs. 133.87 lakhs, Rs. 151.76 lakhs and Rs. 136.44 lakhs respectively at the average book rate of Rs. 26,230 per tonne.

The CLW Administration stated (April 1980 and July 1981) that consumption of electrodes depended on several variables, viz :

(i) Change in product mix ;

(ii) Switch over to use of indigenous electrodes from the imported variety ;

(iii) Ageing of the furnaces involving increased 'heat loss' and 'cycle time of operation';

(iv) Quality of scrap used ; and

(v) Load shedding etc.

though the effect of each factor on the consumption rate was not susceptible of precise quantification. The conditions prevailing in 1968-69 having undergone substantial changes in the subsequent years, it was not possible to maintain uniform rate of consumption.

The following points, however, deserve mention in this connection :

(a) The original product mix of the steel foundry envisaged 5,000 tonnes of steam loco castings and 5,000 tonnes of intricate castings for diesel/electric loco components and manganese crossings annually. After stoppage (1971) of steam loco production, the product mix consisted of only intricate castings of about 5,000 tonnes per annum on an average during the last decade. Despite this lower production consumption of electrodes has not gone down.

(b) C.L.W. has been using indigenous graphite electrodes since 1972-73. Indigenous electrodes from the same source are also used by the Indian Iron & Steel Company Ltd. (IISCO) and Burn Standard Ltd. (both Government of India enterprises) in their respective works at Kulti and Howrah. The furnaces in these foundries are older (installed/commissioned in 1956/1958) than those in C.L.W. (in operation since 1963-64) and work on the same basic system of lining with average daily heats of 6-7 (IISCO) and 11-12 (Burn) as against 3-8 in C.L.W. Yet, the consumption of electrodes (of indigenous manufacture) there is 5-6 kgs. per tonne of melt, which also corresponds to that recommended by C.L.W.'s Collaborator. Further, power consumption (700 to 800 KWH per tonne of metal melt) in these non-railway foundries more or less corresponds to that (671 to 907 KWH per tonne of metal melt) in C.L.W. but consumption of electrodes in the latter is higher.

(c) Use of scrap with higher contents of extraneous elements may require more refining with increased cycle time of operation involving more power consumption. The actual power consumption, however, compared favourably with the fluctuations in metal melt irrespective of the quality of scrap used.

(d) Load shedding would not also appear to have any significant impact on consumption of electrodes. During the years (1977-78 and 1978-79) of maximum load shedding (143 and 326 hours respectively), the average consumption of electrodes (8.37 and 8.98 kgs. respectively) per tonne of liquid metal was less than that during 1972-73 to 1974-75 (8.61, 10.90 and 10.02 kgs.) when power interruptions were comparatively less (21 to 58 hours). Further, during 1982-83 with no interruption in power supply, the average consumption (10.05 kgs.) per tonne of melt was higher even than those in the years of maximum load shedding.

The foregoing analysis of the multivariables stated to be connected with consumption of electrodes would call for an indepth study as to whether the excessive consumption over the years has been contributed by one or more of the following factors :

(a) defective foundry practices ;

(b) lack of proper maintenance of the furnaces and control over various operations involved ; and

(c) laxity of control over quality and quantity of purchases of electrodes.

The C.L.W. Administration has not, however, attempted so far (October 1983) any comprehensive analysis of the trend of consumption of electrodes all these years. Nor has it laid down any norm for consumption of electrodes correlated with the quantity of metal melt, castings outturn and overall production cost, taking into account the relevant operational factors and established standards in similar foundries, to ensure possible economy.

After audit had pointed out (February 1980) the excessive consumption of electrodes, the C.L.W. Administration conducted (May 1980) trials for a week which showed a consumption of 25.3 kgs. of electrodes per tonne of good castings. Duration of the trials being too short, the results thereof could hardly be deemed reliable, more so when the Administration itself has not revised the norms for procurement of the material.

9. Chittaranjan Locomotive Works—Manufacture of diesel shunting locomotives (WDS—8) for Steel Plants.

Capacity for manufacture of about 34 diesel hydraulic shunting (WDS-4) locomotives of 650—700 horse power (hp) per annum had been established* at Chittaranjan Locomotive Works (CLW) in 1967-68. Besides a number of such locomotives in use on Railways, sixteen such locomotives were also supplied to the steel plants during 1971-72 to 1973-74.

Despite the fact that diesel electric locomotive was not regarded by the Committee on standardisation of locomotives for the steel plants intrinsically superior to the diesel hydraulic locomotives, Steel Authority of India Ltd. (SAIL) decided (August 1982) to develop indigenous manufacture of diesel electric locomotive as a fleet of such locomotives had been in use by steel plants for inplant shunting and the steel plant staff had been used to it. The proposal was accepted by the Ministry of Railways (December 1972) and it was decided to develop 5 prototype 700 hp diesel electric locomotives (WDS-8) and deliver 2 of them by end of 1975 by adopting MAK engine already in use in the WDS-4 (diesel hydraulic) locos manufactured by CLW.

The price quotations including the payment terms, design features etc. were submitted by CLW 3 years later in November 1975 on the basis of which necessary advances were paid by the SAIL in October 1976—January 1977. Due to this delay of 3 years, deliveries were rescheduled from 1975 end to January 1979. Thereafter, the project ran into further difficulty in designing and selecting flexible coupling for the loco. After trials upto August 1980, the design was settled and first two prototypes were delivered to the steel plant in February and December 1981 i.e. about 5-6 year after the committed delivery period (1975 end). Further delay was attributed to the indigenous development of flexible coupling for the transmission. The remaining ones were delivered between April and August 1982.

The actual cost of manufacture of the WDS-8 locos has not been finalised so far (July 1983). Out of Rs. 369 lakhs due from the steel plants the recovery so far made is only Rs. 260 lakhs, leaving a balance of Rs. 109 lakhs yet to be recovered (October 1983).

While the development of prototypes of the diesel electric locomotive was progressing, though at a slower pace than en-

*Manufacture was developed in collaboration of M/s. MAK of West Germany

visaged, the SAIL with the concurrence of the Ministry of Railways, imported (November 1981) 35 numbers 600 hp diesel electric locomotives from General Electric Company, U.S.A. (deliveries completed by June, 1982) at a landed cost of Rs. 18.72 crores, thus defeating the objective of indigenous development of diesel electric locomotives for eliminating dependence on import. Moreover, while no further orders for the manufacture of WDS-8 locomotives were placed on CLW. by SAIL, it placed orders for 15 numbers 650 hp diesel hydraulic locomotives manufactured by M/s. Suri and Nayar (SAN) of Bangalore in collaboration with 'Voiths' of West Germany.

The decision of the SAIL to import 35 diesel electric locos in November 1981 at a cost of Rs. 18.72 crores in valuable hard currency was not justified for the following reasons :—

(i) Railways had all along been using diesel hydraulic locomotives and had established capacity for its manufacture at CLW.

(ii) Concept of standardisation has not been achieved as the SAIL has subsequently inducted diesel hydraulic locos in their plants, by purchase through a private sector firm.

(iii) Even after initiating action for development of diesel electric locomotives and taking into account the time involved in the developmental process, interim requirements could have been met by procurement of diesel hydraulic Locos either from trade or CLW., as was done later instead of importing 35 diesel electric locos.

CHAPTER V

IMPORTS

10. Import of wheelsets

Planning and procurement of wheelsets

Wheelsets are supplied to wagon builders as a free supply item by the Railways. Owing to limited capacity of indigenous sources (Durgapur Steel Plant) the Railway Board arrange for import of wheelsets through global tenders lead time for import being about 50 weeks after determination of final requirements.

The requirement of wheelsets is assessed usually in the months of June—September of the preceding financial year on the basis of wagon production programmes, plan allocations and orders are placed on this basis on wheelset suppliers. However, the number of wagons to be finally procured in a financial year is fixed only in the month of January preceding the financial year when the annual plan is approved. As a result the import orders or requirements invariably undergo a change.

The wagon production programme envisaged (in September 1981) for the Sixth Plan period and the annual targets based on budget sanctioned were as under :

Year	Forecast	Annual targets	Actual production
	(Wagons in terms of four-wheeler all gauges)		
1980-81	15,000	13,000	12,605
1981-82	20,000	18,000	17,362
1982-83	22,000	15,740	14,088
1983-84	24,000	12,500	6,263 (up to August 1983)
1984-85	24,000	(to be finalised)	

The production of various types of broad gauge wagons require three types of wheelsets viz., 20.3 tonne wheelsets for

BOX/BCX/BRH/CRT type of wagons, 22.9 tonne wheelsets for BOXN/BOBS type of wagons, and 16.3 tonne wheelsets for tank wagons. Between 1980-81 and 1982-83 the Railway Board placed several orders for import of the three types of wheelsets at a cost of Rs. 60.6 crores to meet the wagon production requirements for the years 1980-81 to 1982-83. As a result of incorrect assessments made on the basis of likely enhanced wagon production which did not materialise, change of product mix, piece-meal revision of assessments, etc., the import of wheelsets were excessive in relation to the actual production requirements involving unnecessary locking up of capital. The type-wise details are mentioned in the succeeding paragraphs.

20.3 Tonne wheelsets

The receipts and actual requirements of 20.3 tonne wheelsets were as given below :

(Figures in numbe- of sets)

Year	Import orders placed		Receipt Import	from D.S.P.*	Total	Require-ments	Expected balance
	Month	Quantity					
			Opening balance in April, 1980				4,496
1980-81	Nov,80	8,900	1,905	8,602	10,507	12,648	2,355
	Dec,80	6,000					
1981-82	Sep,81	2,000	12,650	7,604	20,254	17,996	4,613
	Jan,82	3,500					
1982-83	Aug,82	10,400	12,750	6,446	19,196	16,260	7,549
1983-84	Sep,83	1,394	5,294	6,000	11,294	9,292**	9,551

*Durgapur Steel Plant.

**Based on production programme finalised in April, 1983.

It will be observed that 30,800 sets imported through orders placed between November 1980 and August 1982 had resulted in a huge stock of 7,549 sets at the end of March, 1983. Taking into account the anticipated supply of 6,000 sets from Durgapur Steel Plant the total availability during 1983-84 would be 18,843 sets against the anticipated requirements of 9,292 sets for the production programme during 1983-84 leaving a balance of 9,551 sets. The import of 10,400 sets through the order placed in August 1982 was therefore, excessive and premature and had resulted in unnecessary locking up of capital of Rs. 10.25 crores. The justification for the import could not be examined as Audit was informed that the connected file containing the tender proceedings and contract in respect of global tender (GP 103) was misplaced and not traceable.

The Railway Board explained (October 1983) that the quantity of 10,400 sets covered the wagon building programme for 1982-83 and partly of 1983-84 and that an assessment made again had revealed that by the end of March 1984 the balance would be less than 2,000 nos. as a result of change in product mix and increased pattern of production. It was noticed, however, that the production programme for 1982-83 and 1983-84 as originally drawn up envisaged production of more BOXN type of wagons for which 22.9 tonne wheelsets had been imported. Consequently the change in product-mix so as to increase the production of BOX|BCX wagons using 20.3 tonne wheelsets had resulted in non-utilisation of 22.9 tonne wheelsets already imported as explained below :

22.9 Tonne wheelsets

The Railway Board had decided in September 1981 that in order to achieve better throughput and to meet the growth of bulk traffic future procurement of wagons would be mainly of BOXN type. Out of one lakh wagons (four-wheelers) planned to be procured during the Sixth Plan period 50,000 were to be of this type. The design of the new type of wagons had been evolved by the Research, Designs and Standards Organisation over a period of years from 1974. The wagon was designed for running 7,500 tonne trains at a speed of 90 km per hour. Though the trials of prototype wagons had not been finalised and its speed potential had not been established (even in April 1982), the Railway Board decided (September 1981) that production of 600 wagons (units) should be completed in 1981-82 itself and another 4,400 units in 1982-83. The forecast, target and actual production of BOXN wagons and the requirement of wheelsets (22.9 tonne) are given below :—

Year	Wagon Forecast	Production (in Units) Target	Actual	Orders placed Month	Qty.	Wheelsets (numbers) Receipts	Consumption Target	Actual	Expected Balance
1980-81 . .	600	118	..	Oct,80	200	..	472	..	..
1981-82 . .	2,400 (Revised)	600	56	Sep,81 Oct,81	3,120 2,400	3,080	2,400	224	2,856
1982-83 . .	4,400	2,800	827	Jul,82	11,700	12,478	11,200	3,308	12,026
1983-84 . .	7,500	2,705		Jun,83	5,300	1,862 +5,300@	10,820 (estimated)	10,820	8,368

@expected.

A total quantity of 17,420 wheelsets were received up to June 1983 costing Rs. 14.27 crores and another 5,300 sets (Rs. 3.90 crores) are expected in 1983. In order to meet the production requirement of BOXN wagons up to March 1982 parallel orders were placed in September-October 1981 on two firms (Polish firm and Japanese firm) for 5,520 sets justifying the extra expenditure of Rs. 6.97 lakhs with a view to ensuring availability of wheelsets by March 1982. Similarly the orders placed in July 1982 for 11,700 sets were stated to be required for reaching a production level of 4,400 wagons by March 1983. The actual production up to March 1983 was, however, only 883 wagons on account of non-availability of other matching inputs—mainly centre buffer couplers. Thus the procurement of large number of wheelsets on the basis of a higher level of production programme (which did not materialise) and non-availability of other matching inputs had resulted in unnecessary locking up of capital to the extent of Rs. 6 crores for a year or more.

16.3 Tonne Wheelsets

A quantity of 11,200 wheelsets and 2510 axles was imported through orders placed in January 1980, May 1980 and September 1980 costing Rs. 10.56 crores required for production of 6,118 tank wagons ordered in June 1980. Though the production of tank wagons was in accordance with the targets fixed, in November 1981 July 1982 it transpired that there was large scale idling of tank wagons on account of surplus holdings of about 3,000 tank wagons. The Railway Board examined the possibility of cutting down the production of tank wagons, however, as the wagon producers did not agree for short closure of order and also in view of a large number of wheelsets and other inputs costing Rs. 5 crores, having been procured already, the Railway Board decided (November 1982) to stagger the production of tank wagons.

Thus it would be observed that the procurement of different types of wheelsets during 1980-81 to 1982-83 costing Rs. 60.6 crores on the assumption of higher level of wagon production without a realistic assessment of the requirements duly taking into account the funds likely to be made available had resulted in premature import leading to unnecessary inventory of about Rs. 15 crores.

Apart from inadequate planning for import of wheelsets resulting in unnecessary inventory and locking up of capital, the Railways had also incurred extra expenditure on account of various failures in the processing of tenders, such as incorrect

evaluation, injudicious splitting up of the orders, failure to take into account the fall in trend of prices, etc. These are mentioned in the following paragraphs.

Import of 20.3 tonne wheelsets

The Ministry of Railways (Railway Board) placed five orders, mentioned below, for supply of 20.3 tonne wheelsets required for wagon production during the years 1980-81, 1981-82 and 1982-83.

Sl No.	Month and Year	Number of wheelsets ordered	Price per set	Firm
1.	November 1980 . .	8,900	Yen 262,600 Rs. 9,302	Japanese firm
2.	December 1980 . .	6,000	Rs. 8,200	Romanian firm
3.	September 1981 . .	2,000	Yen 262, 600 Rs. 9,302	Japanese firm
4.	January 1982 . .	3,500	Yen 244.200 Rs. 10.422	Japanese firm
5.	August 1982 . .	10,400	Yen 192,400 Rs. 8,211	Japanese firm

A review of these orders in Audit showed that the orders placed on the Japanese firm had resulted in extra expenditure of Rs. 131 lakhs.

A. Orders placed in November-December 1980

Based on an assessment made in June 1980 global tenders were invited for import of 8,900 wheelsets required for the wagon production programme of 1980-81 and 1981-82. Before receipts of tenders the quantity was reassessed (July 1980) as 16,900 sets in view of anticipated shortfall in supplies from Durgapur Steel Plant (DSP). The tender committee which met twice, on 22nd August 1980 and again on 30th August 1980, revised the quantity to 15,517 sets (against 16,900 sets assessed earlier), keeping in view short-fall of 4,119 sets and 11,398 sets for production programme of 1980-81 and 1981-82 respectively.

Against the global tender, the lowest rate, Rs. 8,200 per set, was quoted by a Romanian firm and the next lowest of Rs. 10,042 per wheelset quoted by a Japanese firm.

Though the tender had been invited for a quantity of 8,900 sets only, the tender committee recommended (22nd August 1980) placing parallel orders on the Romanian firm and the Japanese firm in view of anticipated requirements of 15,517 sets assessed in August 1980 and ordering a large quantity on the Romanian firm was not considered prudent as it had not supplied 20.3 wheelsets in the past.

For the orders to be placed on the Romanian firm the tender committee recommended a lower rate of Rs. 7,868 quoted by the firm earlier in May 1980 before the tender was floated. However, as the firm did not accept the rates, ultimately an order for 6,000 sets was placed on the Romanian firm in December 1980 at Rs. 8,200 per set.

Meanwhile, for balance quantity of 9,517 sets negotiations were conducted with the Japanese firm and the tender committee recommended (30th August 1980) placing orders for 8,900 sets at Rs. 9,302 per set on the Japanese firm and also increasing the quantity ordered on the Romanian firm 6,000 to 6,617 sets. These recommendations were accepted by the competent authority on the 10th September 1980.

The frequent revision of the quantity to be imported apart from resulting in losing the advantage of lower rates for bulk quantity also resulted in placing parallel orders involving extra expenditure of Rs. 38.14 lakhs.

Though the assessment made by the tender committee had shown that out of 15,517 sets to be imported 4,119 would be required in 1980-81 and 11,398 sets in 1981-82 and the delivery schedule offered by the Romanian firm (from March 1981 to October 1981) suited the requirements for 1981-82, instead of ordering the entire quantity of 11,398 sets or at least 8,900 sets on the Romanian firm (lowest tenderer) the Railway Board placed an order for the larger quantity of 8,900 sets on the Japanese firm and the smaller quantity of 6,000 sets on the Romanian firm. This resulted in extra expenditure of Rs. 38.14 lakhs. The decision to increase the quantity ordered on the Romanian firm from 6,000 sets to 6,617 sets was also not implemented resulting in extra expenditure of Rs. 19.31 lakhs. In view of the above the contention of the Railway Board that it would not have been prudent to order larger quantity on Romanian firm was not tenable.

Additional orders placed in September 1981

The orders placed in November 1980 (Japanese firm) and December 1980 (Romanian firm) contained an option clause to increase/decrease the quantity ordered by 30 per cent. The period for exercising the option had expired in February 1981|March 1981. In July 1981, the Japanese firm unilaterally extended the period for ordering additional quantity under tolerance clause, up to 31st August 1981. On this Railway Board made a fresh assessment of the requirements up to March 1982. It was stated that the delay in supplies from the Romanian firm would result in a shortfall of 2,000 sets by March 1982. An order for 2,000 sets was therefore, placed on the Japanese firm involving Rs. 2.47 crores in free foreign exchange.

The assumptions made in August 1981 about the likely supplies from Romanian firm, however, proved to be incorrect. The Romanian firm had commenced supply from August 1981 and completed the supply of 5,002 sets (out of 6,000 sets) by March 1982 as against the assumed supply of 2,000 sets.

The Railway Board explained that the decision to exercise the option clause and purchase additional quantity from the Japanese firm was fully justified in view of the then prevailing situation. However, in view of the incorrect assumptions made in assessing the shortfall, explained above, the additional order on the Japanese firm was not justified.

Orders placed in January 1982

In January 1982 the Railway Board placed a further order for 3,500 wheelsets on a single tender basis with the Japanese firm @ 2,44,200 yen. This order was justified on the ground that 3,500 wheelsets would be required by June 1982 and the orders placed on the Romanian supplier would be delayed leading to shortage of wheelsets. The value of the order was Rs. 4.38 crores in free foreign exchange.

The import of 3,500 sets through single tender on the plea of urgency does not seem to be fully justified for the following reasons :—

(a) The requirements for 1982-83 had not been worked out taking into account the final allocation of funds for that year. The funds likely to be made available for wagon acquisition for 1982-83 was adequate only for 14,000 to 14,500 four-wheeler wagons as against 22,000 wagons envisaged by the Railway Board.

The additional purchase of 3,500 sets was thus based on unrealistic assessment of requirements.

(b) The apprehensions regarding supplies from Romanian firm not keeping to schedule cannot also be regarded as fully justified. The Romanian firm through a telex message dated 10th December 1981 had assured that they would complete the orders placed on it by March 1982 and part supplies had already been inspected by the Railway Adviser, Paris. The shortfall on account of delay in supply, if any, had already been covered by the placement of 2,000 wheelsets additionally on the Japanese firm in September 1981. Though Railway Board had estimated that 3,500 additional wheelsets would be required even for the period up to June 1982, in actual fact the total additional requirement till the end of the financial year 1982-83 based on funds availability was 3,765 sets as shown in an assessment made in February 1982 and therefore, the shortfall, if any, up to June 1982 would have been 940 sets only.

(c) In placing an order for 3,500 sets on a single tender basis with the Japanese firm @ 244,200 Yen per wheelset, the tender committee failed to take full advantage of the fall in prices of nearly 20 per cent during August 1980 to December 1981 and were able to achieve by negotiation a reduction of only 6.8 per cent. If 20 per cent reduction had been achieved, the savings could have amounted to Rs. 92.86 lakhs. In fact in the next order placed in August 1982, within seven months of the single order, the rate obtained from the Japanese firm was Yen 192.400 representing a reduction of 26.7 per cent in rates obtained in August 1980.

Import of 16.3 *tonne wheelsets*

The Ministry of Railways (Railway Board) placed six orders, mentioned below, for supply of wheelsets and axles required for tank wagons production during 1979-80, 1980-81 and 1981-82.

Sl. No.	Month/Year	Number ordered		Price per set in Rs.	Firm
		Wheelsets	Axles		
1.	January 1980	1 000	—	9,959	South Korean
2.	January 1980	1,000	—	10,951	Japanese
3.	January 1980	—	1,210	2,450	Japanese
4.	May 1980	—	1,300	2,384	Japanese
5.	May 1980	1,000	—	10,880	Japanese
6.	September 1980	3.000	—	11,260	French
7.	September 1980	5,200	—	9,485	Romanian

A review of these orders in audit showed that the orders placed on the Japanese firm had resulted an extra expenditure of Rs. 39.5 lakhs.

A. Orders placed in January 1980

Orders placed in January 1980 for a quantity of 2,000 sets and 1,210 axles were based on the assessment of requirement made in May 1979 which indicated need for import of 1,200 sets only. The assessment was revised to 1,810 sets after floating the global tender in June 1979 and again to 3,210 sets in October 1979. The quantity of 3,210 sets was stated to be the import requirement to meet the production programme up to March 1981.

While considering the tenders, the tender committee recommended (October 1979) that the quantity of 3,210 sets required might be ordered as 2,000 assembled sets and 1,210 axles which could be assembled in the Railway Workshops at an overall cheaper cost by utilising reclaimed wheelcentres. The lowest offer received against the tender (June 1979) was that of a Korean firm. Even after the negotiations held in November 1979, which were not fruitful, the lowest offer continued to be that of the Korean firm. The tender committee, however, recommended splitting up the quantity between the Korean firm and a Japanese firm (which had become the second lowest on the basis of exchange rate prevailing in November 1979) on the consideration that (i) the wheelsets for production programme of 1980-81 would be required even in April 1980, (ii) in case the Korean firm delayed supplies the wagon production would get jeopardised, and (iii) placing an order on the Japanese firm would ensure availability within a reasonable time. Orders were placed accordingly on the two firms in January 1980.

The evaluation of the tender was erroneous because :

(i) there was no difference in the delivery schedule quoted by two firms,

(ii) the Korean firm had confirmed in a telex message (November 1979) that they would adhere to the delivery schedule viz., four months from opening of letter of credit,

(iii) the increased quantity was required for the production programme of 1980-81 only, and

(iv) keeping in view the rate of production vis-a-vis the production targets in 1979-80 there was no reason for assuming that wheelsets from this import would be required even in April 1980.

The actual shipments from the two firms showed that the Korean firm had supplied the 1,000 wheelsets ordered on it in June 1980, while the Japanese firm had delayed the supplies by a month. The erroneous evaluation of the tender and injudicious splitting up of the order had resulted in extra expenditure of Rs. 9.92 lakhs.

B. Orders placed in May 1980

In May 1980, the Railway Board increased the quantities ordered on the Japanese firm (from 1,000 sets to 2,000 sets and from 1,210 to 2,510 axles) which was not the lowest tenderer. The additional quantities had been assessed in January-February 1980, fourth assessment made from May 1979, taking into account the requirements for tank wagon production up to March 1982. It was decided that of the additional quantity of 2,300 sets required 1,000 could be imported as wheelsets and 1,300 as axles.

For the 1,300 axles, orders were placed on 1st May 1980, on the Japanese firm at Rs. 2,384 per axle on single tender basis. At the time of approval of single purchase the Railway Board was already negotiating the offer of a Romanian firm for supply of similar axles at Rs. 1,839 per axle. In addition another tender for similar axles had been floated on 23rd April 1980 and was opened on 30th May 1980. The lowest rates quoted by a North Korean firm viz. Rs. 2,102 per axle was lower than that of Japanese firm (Rs. 2,384) on which additional orders were placed. Without waiting for the outcome of negotiations and of the tender floated in 23rd April 1980, the Railway Board had concluded the order for additional quantity of 1,300 axles with Japanese firm resulting in extra expenditure of Rs. 3.67 lakhs.

For import of 1,000 wheelsets, (part of additional requirement assessed in January/February 1980), the tender committee recommended (2nd May 1980) placement of order on the Japanese firm as the Korean firm declined to accept the addi-

tional order at the existing contract price. Before approving the proposals, the Railway Board desired, "we must take stock of the position say as on 1st April 1980, before any further orders are placed". The proposal was submitted again explaining that requirements up to 1981-82 had been covered and in order to meet the urgent requirement it was necessary to go in for import. The competent authority approved the proposals on 10th May 1980 and the contract with the Japanese firm was amended on 19th May 1980 to include supply of additional quantity of 1,000 sets at Rs. 10,880 per set.

The processing of order in May 1980 for additional quantity showed that there was failure to take stock of overall requirements up to 1981-82 as desired by Railway Board. In fact, even while the proposals for increasing the quantity on order on Japanese firm were being considered (10th May 1980), another review of requirements up to March 1982 was being carried out. According to this review finalised on 17th May 1980, there was a shortfall of 8,162 sets. A global tender for 8,200 sets was floated in June 1980 and 5,200 sets were ordered in September 1980 at Rs. 9,485 per set from a Romanian firm and the balance on a French firm against French Credit. The sense of urgency shown in concluding the contracts for additional quantity with the same Japanese firm in May 1980 was not warranted in view of the fact that the requirements up to 1980-81 had been fully covered and the requirements for 1981-82 had not been finalised. The extra expenditure on account of ordering the wheelsets at higher rates works out to Rs. 25.95 lakhs.

The decision to order axles, instead of wheelsets, on the Japanese firm also proved to be erroneous, because even after receipt of the 2,510 axles, the workshops could not complete the work of assembling the wheelsets so far (September 1983). Out of 2,510 axles received in the workshops, 553 had become unsuitable for use on account of defects attributable to lack of proper care in storage and handling. Consequently, during the last 18 months (November 1981 to May 1983) on an average 236 wagons per month were stabled with wagon builders for want of assembled wheelsets. In order to tide over the situation the Railway Board had to place another order for 900 wheelsets on the Romanian firm in March 1983 at a total value of Rs. 65.23 lakhs.

Replying to the audit observations the Ministry of Railways stated :

(i) that the extra expenditure incurred in placing the orders on Japanese firm, in January 1980, was justified in view of the situation prevailing at that time,

(ii) that at the time of issuing acceptance letter on 1st May 1980 for additional quantity of 1,300 axles, the tender floated in April 1980 had not been opened, and

(iii) that in May 1980, it would not have been prudent and feasible to wait for the integrated position to work out the requirements.

The contention of the Railway Board is not, however, acceptable in view of the various lapses already mentioned above.

Summing up

Procurement of wheelsets during the period 1980-81 to 1982-83, based on unrealistic assessments of higher level of wagon production without taking into account the likely availability of funds had resulted in premature ordering leading to excessive stock of wheelsets and locking up of capital. In the case of 20.3 tonne wheelsets imported, the available stock from March 1983 is likely to be more than 9,500 sets representing idle inventory of about Rs. 9 crores. The Railway Board's explanation that the stock would be less than 2.000 wheelsets on account of change of product-mix/increase in production etc., was not found acceptable as it was observed that the change in product-mix had resulted in reduced level of production of BOXN type wagon leading to excessive stock of 22.9 tonne wheelsets valued at Rs. 6 crores. In the case of 16.3 tonne wheelsets though they were utilised for the production of tank wagons this was done by keeping up the production level in order to utilise the materials costing Rs. 5 crores already procured in spite of the fact that the tank wagons were in surplus.

Besides the unnecessary locking up of capital on account of improper planning, the contracts awarded to the Japanese firm intermittently had resulted in extra expenditure of Rs. 170.5 lakhs on account of (i) incorrect evaluation and injudicious splitting up of the quantity between the Romanian firm (lowest tenderer) and the Japanese firm without matching the requirements (ii) failure to implement the decision of the competent authority to increase the quantity ordered on the Romanian firm

(iii) omission to make proper assessment of requirements and resorting to piecemeal ordering on the Japanese firm on the plea of urgency and assuming delay in supply by the other firm, (iv) failure to take into account the trend of fall in prices, and (v) failure to take into account the lower rate under negotiation.

11. Southern Railway—Avoidable import of wheel tyres for Broad Gauge Electrical Multiple Units

The Southern Railway Administration commissioned forty-two news units of broad gauge, electrical multiple units (EMUs) on different dates between March 1979 and July 1981. Each 'Unit' consists of a motor coach and three trailor coaches.

Based on the anticipated wear of wheel, tyres, retyring of motor coaches would fall due on the completion of four years' service and that of trailor coaches after six years' of service. The first retyring would, accordingly, become due in 1983 for motor coaches and in 1985 for trailor coaches.

In April 1980 the Administration placed an indent on Railway Board for procurement of 314 wheel tyres for the contract period September 1981 to August 1982. The assessment was stated to be based on the requirements from 1st September 1979 to 31st August 1982 plus three months buffer stock for retyring programme. The indent also stipulated that 50 per cent of the supplies were required by 1st September 1981 and the balance by 31st August 1982.

The Railway Board included the above requirements in a contract placed on a Japanese* firm after obtaining confirmation of the Southern Railway Administration for the quantity indented by it. The tyres were received in February 1982. The cost per tyre was Rs. 4214 and the total value Rs. 13.23 lakhs (including customs duty).

*This firm had also supplied wheelsets commented in paragraph 10.

One of the 314 tyres received in February 1982, only 6 tyres had been issued upto October 1983 ; the balance of 308 tyres valued at Rs. 13.18 lakhs are lying in stock.

The following points arise in this connection :

As the retyring of motor coaches|trailor coaches was not due before 1983/1985 the assessment of requirements as from September 1979 was erroneous. Likewise, the stipulation that 50 percent of the tyres were required by September 1981 and the balance by August 1982 was unwarranted.

As a result of premature indents placed, the import was excessive leading to sizeable overstock (Rs. 13 lakhs), especially when the trend of steel market was 'buyers' market'.

The Administration stated (October 1983) that it was essential to keep a stock of spare tyres as emergency stock to meet premature failures due to cracks, flats, loose tyres etc.

It was, however, observed that in 1979-80, there were only 12 cases of premature retyring due to development of cracks etc. Even on this basis, the estimation that 314 tyres would be required for premature replacement during 1980-81 and 1981-82 was unrealistic. As already stated the need for premature replacement arose in six cases only in 1982-83 and the balance of 308 tyres costing Rs. 13 lakhs are lying in stock.

12. Avoidable extra expenditure on import of rails.

The Ministry of Railways (Railway Board) floated (September 1980) a global tender for import of 15,400 tonnes of rails (60 lbs) to meet requirements of track renewal works. Three out of five firms who had responded against the tender (opened on 11th November 1980), participated in the negotiations (3rd April 1981) for price reductions and submitted (9th April 1981) revised FOB as well as C&F prices. The quoted C&F rates and those derived by the Railway Board from the

FOB prices with freight rates of Shipping Corporation of India compared as under

Firm	FOB rates (Rupees per tonne)	C& F rates (Rupees per tonne) for					
		Bombay		Calcutta		Madras	
		Quoted	Derived	Quoted	Derived	Quoted	Derived
'A'—Japan . . .	3318.19	(Not quoted)	3879.67	3924.05	4024.98	3881.86	3862.62
'B'—U.K. . . .	3215.43	3804.93	4038.55	3804.93	3957.88	3804.93	3957.88
C'—France . . .	3311.95	3793.10	4225.45	(Not quoted)	4134.73	3793.10	4134.73

The lowest C&F offer (Rs. 3,793.10 per tonne) was from the French firm for shipments to Bombay|Madras, ports, while that (Rs. 3,804.93 per tonne) for Calcutta port was from the U.K. firm. The C&F quotations being economical to those computed from FOB prices, approval of the Ministry of Shipping and Transport was obtained (7th May 1981) by the Railway Board for placement of orders at the tendered C&F rates instead of on FOB basis.

However, taking into account the computed C&F rates, the Tender Committee recommended (8th May 1981) ordering 6,000 tonnes on the U.K. firm for shipments to Calcutta port and 9,400 tonnes on the Japanese firm for supply at Bombay| Madras ports at their respective tendered FOB prices of Rs. 3,215.43 and Rs. 3318.19 per tonne (corresponding compured C&F rates being Rs. 3,957,88 and Rs. 3,79,67| Rs. 3862.62). This recommendation, though depriving the advantage of economical C&F rates as tendered, was accepted (May 1981) by the Railway Board, in contradiction of their earlier intention to obtain supply on C&F basis.

Later, at the instance of the Ministry of Finance, the lowest C&F offer of the French firm was accepted (June 1981) for supplies of 9,400 tonnes at Bombay|Madras ports for availing the French credit. The earlier decision (May 1981) accepting the FOB offer of the U.K. firm for 6,000 tonnes was however, left unchanged on the ground that the French firm had not quoted C&F rates for shipments to Calcutta port.

The following are audit comments in this case :—

(i) There was failure to take advantage of the cheaper (Rs. 152.95 per tonne) C&F quotation of the U. K. firm as compared to its FOB price. This resulted in ordering of 6,000 tonnes on FOB basis involving an avoidable extra expenditure of Rs. 9.18 lakhs from the scarce free foreign exchange resource.

(ii) Economics of obtaining 6,000 tonnes on C&F basis at Bombay|Madras ports from French source vis-a-vis FOB supplies from U.K. was not examined. Had this been done, not only expenditure in free foreign exchange of Rs. 2.43 crores but also the extra expenditure of Rs. 9.89 lakhs (price differential being Rs. 164.78 per tonne), involved in FOB supplies from U.K., could have been avoided.

CHAPTER VI

PLANT AND MACHINERY

13. Plant and Machinery

Paragraph 2.5 of the Advance Report of the Comptroller and Auditor General of India on Railways for the year 1979-80, mentioned that due to inadequate provision made for replacements, at the end of the Fifth Plan (1974—79), 77 per cent of plant and machinery in railway workshops, 53 per cent in Production Units and 46 per cent in Locomotive Sheds and Sick Lines were overaged. Even during the Sixth Plan (1980—85), the provision for plant and machinery was Rs. 230 crores only against Rs. 354 crores estimated by the Railawy Board.

It was observed in audit that the Railway Administrations had not perceived the need for expeditious processing of the purchase and prompt installation of the equipment, so as to achieve the economic benefits of the new plant and machinery. Procurement action for the equipments provided in Machinery and Plant programmes up to the year 1977-78, requiring outlay of Rs. 37.22 crores has still not been completed. The progress achieved was 68. per cent only even after a lapse of 5 years. Some of these items relate to provision made in 1963-64.

While on the one hand, the Railways are not able to accelerate modernisation programme due to inadequate resources, on the other hand, even the meagre outlay on acquisition of plant and machinery has not been put to profitable use in a number of cases because of abnormal delay in installation, idling, defects in equipment etc.

The inadequacies in progressing the procurement and in installation of plant and machinery had resulted in substantial infructuous expenditure to Railways and extra expenditure on account of continuance of the old machinery or costly workshop practices.

A few instances noticed in audit are given in the succeeding paragraphs. The extent of the extra expenditure/infructuous expenditure on account of idling of machinery in these 15 instances alone works out to Rs. 1.24 crores.

1. Lube oil filter plant

A case of under-utilisation of a lube oil filter plant of South Central Railway on account of delay in purchasing raw material (filter paper) and deliberate restrictions on output resulting in extra expenditure of Rs. 87.60 lakhs in a period of 2 years is mentioned separately in paragraph 14 of the Report.

2. Integral Coach Factory—Gear hobbing machine

The Integral Coach Factory was manufacturing gears of different sizes on milling and slotting machines. In August 1978, the ICF Administration proposed to obtain, on priority basis, a gear hobbing machine which would reduce, by half, the time required for manufacture of gears and also improve the quality and life of the gears. A purchase order could be placed, however, in May 1980 only, on firm 'A' for supply of the machine at a price of Rs. 7.66 lakhs. The machine received in February 1982, could not be commissioned because the module cutters and gear hobs essential for it commissioning had not been purchased. These components were procured in June 1983 and the machine was commissioned in July 1983. The guarantee period for the main equipment, in the meantime, expired in May 1983.

Costly manufacture of gears on the existing milling and slotting machines had to be continued in the meantime. It has been estimated that about 133 gears manufactured on the gear hobbing machine would have sufficed the Administration's requirement against 800 gears manufactured annually with the existing machines (life of the former being 6 times that of the latter). Consequently the Administration had incurred an extra expenditure of Rs. 4 lakhs approximately per annum on replacement of gears (the cost of gears manufactured being about Rs. 600 per gear).

3. Integral Coach Factory—Heavy duty shaping machine

The Integral Coach Factory (ICF) Administration proposed to purchase a heavy duty shaping machine and placed

an indent on DGS&D in November 1978. As the purchase through DGS&D did not fructify and the machine was required urgently for replacement of an existing old machine, the Administration decided to make direct purchase. Accordingly it invited tenders in December 1979. Though the offer of firm 'B' at a total price of Rs. 3.19 lakhs was found acceptable, the Administration failed to take a decision on the tender within the inital validity period (30th April 1980) or the extended period (15th July 1980). The tender committee decided on 22nd July 1980 to examine the performance of another machine supplied by firm 'C' to Eastern Railway before deciding on the offer of firm 'B' though the offer of firm 'C' against this tender had not been found technically acceptable. The tender committee finally recommended (September 1980) placement of an indent on the Central Organisation for Modernisation of Workshops (COFMOW) on the grounds that the firm 'B' was not agreeable to supply the machine at their originally quoted price and that COFMOW could obtain more economical price for bulk orders.

The indent placed by ICF Administration on COFMOW in November 1980 was, however, returned by the latter in March 1981 as the bulk procurement had already been finalised by them. Ultimately the machine was purchased from firm 'B' at a cost of Rs. 4.38 lakhs and commissioned in August 1983.

Thus the Administration had taken more than 5 years to finalise the purchase of the machine which was stated to be required urgently. Apart from the cost of time resulting from delay, late finalisation of tender resulted in extra expenditure of Rs. 1.19 lakhs in the purchase.

4. Chittaranjan Locomotive Works—Gas carburising furnace

In order to obviate the technical difficulties in the existing pack carburising system as well as to cope with the needs of expanding produtcion, the Chittaranjan Locomotive Works (CLW) Administration decided in June 1972 to replace the existing system with a gas carburising furnace with automatic controls. Though, the procurement was included in the Machinery and Plant programme of 1973-74, purchase was initiated in 1977 only as funds for this item were made available during 1977-78.

A purchase order for the equipment costing Rs. 2.81 lakhs was placed on firm 'D' in December 1977. The firm despatched the furnace, without the accessories, viz., "carbonal drip feed system" essential for commissioning the furnace, on 26th May 1978 (the scheduled date of delivery being February 1978) after it was inspected by the Shop Superintendent, Chittaranjan Locomotive Works (CLW).

The furnace received in September 1978 could not be commissioned due to non-receipt of the accessory—carbonal drip legal system—which was supplied by the firm only on 21st April 1979. The Administration found that the drip feed cabin was damaged and that in the main equipment, which had been inspected by the CLW's representative earlier, several electrical parts were deficient. defective, broken and damaged, the general condition of the furnace being poor. The firm, however, did not replace the damaged parts.

Meanwhile as there had been change in the ownership of the firm, the successor firm refused to accept any obligation to replace the defective parts or to commission the furnace.

The furnace has not been commissioned so far (August 1983) rendering the expenditure of Rs. 3 lakhs (representing the cost of furnace and carburising fluid) infructuous. Further the technical advantage expected to be derived by modernising the heat treatment process has also not been achieved.

5. Northern Railway—Shot peening machine

The Railway Administration placed an indent on Director General Supplies and Disposals (DGS&D) in January 1973 for a shot peening machine for Locomotive Workshop, Amritsar to obtain a satisfactory level of quality in the repair and manufacture of springs.

A Calcutta firm 'E' ordered by the DGS&D in October 1973 to supply the machine by April 1974, did not execute the order even within the extended delivery time of 31st July 1977, but it proposed some amendments in the purchase order in August 1977. The Railway Administration could not decide on this without an inspection of the actual working of any installed machine of this type.

The machine received in May 1978 was installed in August 1978, and was put to trial run on 16th March 1979 for two hours. The trials showed that the machine was defective as the shots were found flying out from the pigeon holes provided for inlet and outlet of the plates which could cause injury to the staff in the vicinity. Despite this defect, the Deputy Chief Mechanical Engineer informed the firm on 22nd March 1979 and also the Director General Supplies and Disposals on 7th April 1979 that the machine had been put into effective commission by the firm's representative on 16th March 1979.

The Administration's efforts to get the defects rectified by the firm were not fruitful and the matter regarding estimated cost of rectification of defects and firm's liability remained under correspondence between the Administration and DGS&D during the period August 1980—October 1981.

In November/December 1982 the firm carried out some modifications, but the machine did not produce satisfactory results.

The machine installed in the workshop in August 1978 to improve quality of springs has not been put to use so far (August 1983) on account of various defects. Thus the failure of the Administration to examine the suitability of the machine *ab initio* has resulted in a loss of Rs. 2.48 lakhs, and the manufacture of springs of unsatisfactory quality with its attendant risks and cost.

6. Central Railway—Shearing machine

The Railway Administration placed a purchase order on firm 'F' of Bombay on 19th June 1976, for supply of guillotine shearing machine at a cost of Rs. 2.65 lakhs for Matunga Workshop. The supply was to be completed within eight to ten months of the issue of the order, i.e. by 28th February 1977. On receipt of the order, the firm asked the Adminisration, on 24th June 1976, to rectify certain discrepancies in the purchase order. Meanwhile, the Railway Administration extended the date of delivery to 1st June 1977 even without receiving any such request from the firm.

After a lapse of three years, on 18th April 1980 the Administration issued a risk purchase notice to the firm for its failure to supply the machine within the stipulated delivery date. The firm repudiated the claim stating that in the absence of action to rec-

tify the purchase order, they had assumed that the Administration was not feeling any urgency of procurement and as such they had kept the order pending. At the request of the firm the order was cancelled in May 1980 wihout financial repercussions.

The Railway Administration subsequently purchased the machine from firm 'B' of Bombay in July 1981 at a cost of Rs. 5.09 lakhs. This machine received in March 1982, has also not been commissioned so far on account of manufacturing defects.

Thus this purchase at an additional cost of Rs. 2.44 lakhs has proved to be infructuous as it could not be commissioned and the the requirements of the shops were still being met by the old machine.

7. Southern Railway—Horizontal boring and milling machine

For the development of Signal Workshops at Podanur, the Southern Railway placed an order, in December 1971, on a firm in Bombay for a horizontal boring and milling machine with numerical control device costing Rs. 6.58 lakhs by import from Italy. The machine inspected and passed by the Deputy Railway Adviser in Bonn in September 1972 was shipped in June 1973 and was received at Podanur in November 1973. Though the machine was installed in February 1974 it could not be commissioned due to certain defects. The Railway Administration had to obtain the services of the Italian Engineer, in November 1975, incurring expenditure of Rs. 40,000 and also to import spare parts for the numerical control device costing Rs. 1.98 lakhs before the machine could be commissioned fully in June 1978.

According to the Administration, the defects could have arisen between the date of inspection (September 1972) and date of shipment (June 1973) and the delay in commissioning was attributable to the defective condition of the machine.

Consequent on the delay of 5 years in commissioning the machine the workshop had to continue the production of point machines and signal machines with the existing conventional milling machines involving extra machine hours and attendant operating costs. According to Railway's own estimate, in 1978-79, after commissioning of the machine, the "allowed time" (machine hours) for production of 264 point machines and 160 signal machines was 3,551 hours against 15,655 hours required on

the conventional milling machines involving additional expenditure of Rs. 0.96 lakh.

8. Southern Railway—High speed paper cutting machine

A high speed paper cutting machine, costing Rs. 1.22 lakhs, with automatic devices for setting gauges for exact sizes of seal, punching and job cards etc., was procured by the Southern Railway for its Press in December 1972 in replacement of an old cutting machine. Shortly after its installation in August 1973, some of its electronically operated parts were found defective. Even after obtaining additional spares at a cost of Rs. 12,740 it could not be brought to proper working order because the Administration did not take adequate steps to house the machine in air-conditioning|dust-free room.

In August 1978, about 5 years after its installation the machine was brought to a semi-automatic operating condition without the facility of automatic programmed operation. During the 10 years from 1973 to 1983, the machine was utilised for 828 days only. It has not been used after June 1982.

9. South Central Railway—Pneumatic Power Hammer.

A pneumatic power hammer of one tonne capacity purchased by South Central Railway Administration in August 1973, at a cost of Rs. 4.03 lakhs and received in October 1974 could be installed only in December 1975 owing to delay in completion of civil work. After commissioning, the hammer was only utilised intermittently (because of technical defects) up to July 1977 when it broke down and was out of commission. The Railway Administration's efforts to get the defects rectified by the supplier were not fruitful as the warranty period had expired.

10. Northern Railway—Arc Welding Sets.

For setting up facilities to manufacture ICF Bogies in Amritsar Workshop, the Northern Railway Administration procured in October 1980, one Arc Welding Set comprising welding set of current range of 650 amperes and Motor Generator from a firm of New Delhi at a cost of Rs. 0.90 lakh.

As the purchase proved to be defective, which resulted in poor quality of welding, the manufacture of bogies has not been started so far (August 1983). An expenditure of Rs. 8.10 lakhs

on the procurement of material and machinery has also proved infructuous.

11. A few more instances of non-utilisation of machinery noticed in audit are given in the Annexure XIV.

Summing up, it was noticed,

1. that the processing of indents and the progressing of the orders was done in a routine manner and the average procurement period was up to 5 years from the date of indent,

2. there was also avoidable delay in procuring accessories,

3. that in some cases the equipments purchased were either defective or unsuitable for their requirements,

4. that delays of over 5 years were noticed in some cases of equipment installation on account of lack of planning and synchronisation of other (civil, electrical, etc.) works, and

5. that even after the delayed installation, machinery remained under-utilised on account of defects or deliberate restrictions on out-put.

14. South Central Railway—Under-utilisation of a lube oil filter plant

Lube oil filter is an essential disposable component of diesel locomotives that prolongs the life of critical parts like crank shafts, bearings, etc. A captive lube oil filter plant was set up on South Central Railway in May 1978 at a cost of Rs. 6.18 lakhs with the twin objective of checking prices charged by the trade and to develop a fresh source of supply. The plant was expected to reach a production level of 2,000 filters from February 1979, 4,000 filters from December 1979 and 10,000 filters (with double shift working) from December 1980. Though the first filter was produced in June 1978 and was adjudged by the Research, Designs and Standards Organisation (RDSO) as superior to that supplied by the trade, there was delay in commencing regular production and utilising the plant to its full capacity leading to continued purchase of filters from trade involving extra expenditure, as explained in the following paragraphs.

The number of filters manufactured after commissioning the plant in May 1978 and the projected level of production is given below :

Period	Projected monthly capacity	Actual production	Monthly average
	(Number of filters)		
August 1980 to March 1981	2,000 up to November 1979 4,000 up to November 1980 *10,000 from December 1980	6,062	758
April 1981 to March 1982	10,000	24,553	2,046
April 1982 to February 1983	10,000	27,195	2,472

*With double shift working

It will be observed that the average monthly production was less than 50 per cent of the capacity. The under-utilisation of capacity was found to be attributable to (i) delay in import of filter paper (raw material for manufacture of filters) and (ii) restricted production, as directed by the Ministry of Railways (Railway Board).

In order to achieve a monthly production of 4,000 filters from December 1979, the annual requirement of impregnated filter paper (an imported item) would be about 84 tonnes. Instead of taking timely action for obtaining adequate stock of raw material, the Railway Administration placed indents for much smaller quantity (50 tonnes) in February 1978 and October 1978 which were covered in the purchase orders placed belatedly in March 1980 only. Supplies were received in August 1980 and consequently regular production commenced from August 1980 i.e. 2 years after commissioning the plant. Another indent for 100 tonnes placed in July 1980 was covered by purchase orders in July 1981 against which supplies were received in December 1981—May 1982. The delay in procurement of filter paper was mainly due to delays in observance of procedures relating to foreign exchange clearance and cancellation of indents by Director General, Supplies and Disposals (DGS&D) for want of foreign exchange sanction. Extra cost due to delay was Rs. 1 lakh on account of increased prices.

Besides the under-utilisation of the plant caused by delay in importing filter paper, there was under-utilisation also on account of Railway Board's decision, in June 1979, to restrict the output (to 3,000 filters per month) and defer the second shift working. The decision to restrict the output was mainly based on a representation from the All India Automobile and Ancillary Industries against the setting up of the plant on South Central Railway and a suggestion by the Department of Heavy Industry that the manufacture of ancillary equipment for diesel locomotives should be left for development to the ancillary manufacturers who had established commercial production at considerable costs.

It was, however, observed that the Railways' requirements of filters in 1983 were 2.64 lakhs per annum (against 1.20 lakh in 1979). The capacity of the plant on South Central Railway even with double shift working being only 1.20 lakhs filters per annum procurement from the ancillary manufacturers would have been still necessary. Moreover, the capacity of the private firms manufacturing filters covers the full range of automotive application and not exclusively filters for diesel locomotives. The decision to restrict the production of the Railway's plant, therefore, has operated to the disadvantage of the Railways particularly in view of the better quality of filters manufactured by the Railways.

The cost of filters manufactured in the South Central Railway's plant was assessed at Rs. 164 per filter in 1982 against the price of Rs. 178 per filter paid to the trade. The quality of the filters manufactured by trade was not equal to that of the Railways because the filter media was inferior and the average life was stated to be 30 days only against the life of 45 days for the filters manufactured in Railway's plant. Consequently the equated cost of filter supplied by trade would be Rs. 267 per filter (against Rs. 164 per filter for Railway's manufacture) involving extra expenditure of Rs. 103 per filter purchased from trade. If the restrictions on output had not been imposed and the plant had been utilised to its full capacity of 5,000 filters (even on single shift basis), an annual production of 60,000 filters could have been achieved, against 29,228 filters produced in 1982, and extra expenditure of Rs. 31.69 lakhs could have been avoided.

Similarly, the idling of the plant, after commissioning, from June 1978 to August 1980 caused by delay in procurement of filter papers had resulted in purchase of filters from trade involving additional expenditure of Rs. 87.60 lakhs.

CHAPTER VII

CONTRACT MANAGEMENT IN RAILWAYS

15. Contract management in Railways

Works contracts

Railway instructions enjoin that the works should be contracted only when all preconditions for starting the work, such as finalisation of design and plans for the work, determination of quantities of work to be executed, and availability of site for the work free of encumbrances, etc., are fulfilled to avoid prolongation of the work and changes in the character or scope of the work. It was, however, observed during review of a few major contracts in Audit that the management of the contract work was far from satisfactory, as the contracts had been abondoned/terminated due to delays in execution of works as a result of non-availability of sites, non-removal of encumbrances or alterations in the plans, giving rise to violent fluctuations in the quantities of work contracted, and changes in the character and scope of the work. This had resulted in disputes, arbitrations and repeated awards of fresh contracts leading to inordinate delays and cost escalation, as discussed in the paragraphs et seq.

I. (i) Southern Railway—Mangalore-Hassan Railway line project Reach VII

In November 1968, the Railway Administration entered into an agreement with Contractor 'A' for execution of earthwork, bridges and tunnels in Reach VII by November 1971 at a cost of Rs. 48.76 lakhs. The accepted rate was 21 per cent above par value. In the course of execution of the work, the Administration changed the alignment, resulting in increase in the quantities of the work for which the contractor claimed (June 1971) higher rates. Owing to the poor progress of the work, the contract was terminated by the Administration in September 1971 at the risk and cost of the contractor. By that time, work valued at Rs. 11.45 lakhs only had been done, as against the contract value of Rs. 48.76 lakhs. In July 1972, another agreement was entered into by the Administration with Contractor 'B' to complete the left over work. The rate accepted this time was 65 per cent above par value, (as

against the earlier rate of 21 per cent above par value) and the cost of the residual work increased to Rs. 48.12 lakhs (as against Rs. 37.31 lakhs according to the previous contract). The work was to be completed by 30th November 1973. The contractor demanded (June 1974) higher rates because of the delay in handing over the site, and the non-provision of service roads, escalation in cost of essential commodities like diesel etc. This was not agreed to by the Administration. The contractor abandoned the work in June 1974 and the Administration terminated the agreement (July 1974) at the risk and cost of the contractor. By then the work valued at Rs. 11.12 lakhs only had been done and work valued at Rs. 37 lakhs still remained to be done. In April 1975, the Administration entrusted the remaining work to Contractor 'C' at a value of Rs. 60.36 lakhs (as against Rs. 37 lakhs according to the contract with Contractor 'B'). Contractor 'C' had initially quoted different rates for the three Schedules viz. 99 per cent, 247 per cent and 107 per cent above par value, for earth work, bridges and tunnels respectively. The Tender Committee negotiated and obtained a common rate of 136 per cent above par value for all the three schedules as was the case in earlier contracts. The benefit of this common rate was subject to there being no variations in the quantities of individual schedules during execution. However, in the course of actual execution, the quantities varied, making the common rate disadvantageous in comparison to the individual rates for the three schedules. The resultant avoidable expenditure was Rs. 2.71 lakhs. The work was to be completed by December 1976. In January 1976 Contractor 'C' represented that he could not commence the work till July 1975 (a period of 4 months after award of contract) owing to an order of the court which appointed a Commission to take measurements of the work done by the previous contractor 'B', and that this delay had caused a substantial loss to him due to escalation of costs in the meantime. He claimed 75 per cent extra, over the accepted rate of 136 per cent above par value. The contractor also claimed (February 1976) 400 per cent extra for work on certain bridges due to alterations in their designs. Accordingly, after making a payment of Rs. 38.78 lakhs for the work done in terms of the old agreement, the Administration entered into a fresh agreement with the same contractor 'C' in January 1978 for certain portions of work executed, beyond the original date of completion (as stipulated in the old agreement) and for certain new items of work introduced subsequently. The agreement, now provided for different rates for the three schedules, viz. 245, 319 and 225 per cent above par value for schedules relating to earthwork, bridges and tunnels respectively (as against the earlier uni-

form rate of 136 per cent above par value). The value of the new contract was Rs. 26.12 lakhs. The items in this contract too underwent further variations, and additional items were also introduced. The total payments made against this contract finally amounted to Rs. 47.06 lakhs. The work was completed in August 1979. The contractors 'A' and 'B' went in for arbitration and obtained (July 1974)|(April 1978) awards in their favour. As a result, no recoveries could be made from them on account of risk cost. The following are the salient points in this case :

1. The belated changes in alignment, the delay in handing over the site, subsequent alterations in bridge designs and introduction of new items led to claims by the contractors for increase in their rates.

2. The work estimated to cost Rs. 48.76 lakhs and expected to be completed by November 1971 was completed at a cost of Rs. 108.41 lakhs (involving an extra expenditure of Rs. 59.65 lakhs) by August 1979 (after a delay of nearly 8 years).

3. The Railway Administration's injudicious insistence on a common rate without ensuring the attendant condition of non-variation of the quantities, resulted in avoidable expenditure of Rs. 2.71 lakhs.

The Railway Administration stated (December 1982) that the changes in the plans were necessitated due to site conditions. The Railway Administration, however, did not explain why the site conditions could not be studied and taken care of, during final location survey.

I (ii) Southern Railway—Doubling of track along Palghat—Alwaye section

A review of 6 (out of 25) agreements relating to four patches of doubling along Palghat-Alwaye section, with particular reference to earthwork contracts revealed long delays in completion of works ranging between over 2 to 3 years, and the resultant extra expenditure of Rs. 108.13 lakhs arising out of higher rates demanded by contractors for cost escalation as indicated below :

S.No.	Name of work	Original value of contract Rs.	Extra expendi-ture Rs.	Percentage of col. 4 to col. 3	Original due date of compe-letion	Reported date of compl-tion	Amount of risk cost paid by defaulting contractor.
1	2	3	4	5	6	7	8
1.	Wadakancheri-Nulagunnathukavu sub-section—Earthwork in Reach-I	22.91 lakhs	24.18 lakhs	105%	November 1979	May 1983	Nil
2.	Trichur-Ollur sub section—Earthwork in Reach-I	13.82 lakhs	11.12 lakhs	80.52%	January 1980	June 1983	No claim preferred.
3.	Trichur-Ollur sub-section—Earthwork in Reach-II	11.64 lakhs	15.50 lakhs	133%	February 1980	April 1983	Nil
4.	Chalakudi-Anagamali sub-section—Earthwork in Reach-I	11.24 lakhs	27.00 lakhs	240%	August 1980	April 1983	Nil
5.	Palghat-Shoranur sub-section Earthwork—Reach-I	10.06 lakhs	17.05 lakhs	169%	December 1980	March 1983	No claim preferred
6.	Palghat-Shoranur sub-section—Earthwork—Reach-III.	16.65 lakhs	13.28 lakhs	79%	January 1981	March 1983	No claim preferred
	Total		108.13 lakhs				

The details of the cases are given in Annexure XV.

The delay in completion of works by the contractors was generally explained as due to various delays on the part of the Railway Administration in acquisition of land, in clearance of obstructions like signal wires, telegraph and electric posts at the site of the works, in finalisation of bridge plans/working sections, alterations in alignment during execution of works, and introduction of new items leading to change in the scope of the works. Besides, the period of 18 months stipulated for completion of the work in each case was rather short and unrealistic.

The Railway Administration stated (July 1983) that if every formality was to be completed before awarding the work, or if a period longer than 18 months had been stipulated for completion of the work, the contractors would have quoted higher rates. This argument is not tenable because it cannot be established by the Railway Administration that the extra expenditure in that case would have been of the same magnitude. The practice of awarding works prematurely results in ultimate negation of the basic principle of securing competitive rates in as much as the contractor who is half way through the work, is always in an advantageous position, while negotiating his claim for higher rates with the Railway Administration.

1 (iii) Central Railway—Construction of fly-over between Bandra and Khar Road stations

Contract for Rs. 58.99 lakhs for construction of a fly-over between Bandra and Khar Road stations, awarded in October 1978, was due for completion by February 1981. The contractor commenced (October 1978) the work on North approaches, but its progress was impeded upto July 1979 as the necessary diversion of the down local line by the Railway Administration to its final location was not provided. The diversion of other lines too was delayed by the Administration till August 1980. As a result, the work on South approaches could be started by the contractor only in September 1980, as against the scheduled date of October 1979. Thus, there was a delay of 11 months on the part of the Administration in handing over the work site to the contractor for the South approaches. Consequently, after completion of works worth Rs. 34.36 lakhs only (out of the total agreemental value of Rs. 58.99 lakhs) upto February 1981, the stipulated date of completion, the contractor demanded (February 1981) increase of rates by 65 per cent on account of cost escalations. This was rejected (September 1981) but extension upto October 1981 was

granted. The contractor did not complete the work and the contract was terminated in November 1981. Fresh tenders (limited tenders from the original tenderers only) were invited (November 1981) for completion of the balance portion of the work (value: Rs. 24.63 lakhs) at the risk and cost of the defaulting contractor. Four parties (including the defaulting original contractor) tendered. The provision of risk cost was, however, dropped (December 1981) on the advice of Ministry of Law, considering the failure of the Railway Administration to hand over work site in time. The contract was awarded (December 1981) to the original contractor who happened to be the lowest, at a cost of Rs. 47.48 lakhs, involving an increase of Rs. 22.85 lakhs over the original contractual cost of Rs. 24.63 lakhs. Besides, Metropolitan Transport Project (MTP) Organisation responsible for execution of this work, had to be continued for a further period of 17 months from November 1981 to March 1983, resulting in incurrence of extra expenditure of Rs. 22.67 lakhs on pay and allowances of staff and Rs. 4.53 lakhs on rent of office building. The total extra expenditure, thus, worked out to Rs. 50.05 lakhs. The Railway Administration stated in January 1983 that the work of diversion of Railway lines between Bandra and Khar Road Stations had to be done under traffic constraints and lack of working space, leading to delay in handing over the site to the contractor. This argument is not tenable as the volume and the nature of the work involved, as well as the conditions under which it was to be done, were already known to the Railway Administration.

The Railway Administration's failure to make the work site available to the contractor before the scheduled date of commencement of work led to extra expenditure of Rs. 50.05 lakhs.

I (iv) Southern Railway—Mangalore-Hassan Railway line Project Reaches XIV & XV

Two contracts valued at Rs. 40.62 lakhs and Rs. 43.93 lakhs (at 5 and 15 per cent above par value) were placed with contractor 'X' in March 1969 for the execution of earthwork, bridges and tunnels in Reaches XIV and XV respectively. The Railway Administration revised the alignments and the bridge plans in May/June 1971 and February 1972 due to steep sloping terrain at the existing site which obviously could have been noticed during survey. The contractor refused to continue the work beyond the scheduled date of completion (29th February 1972) unless higher rates were paid in view of the changes in the scope of

the contracts. The works had progressed to the extent of 90|67 per cent in the two reaches by that time. The Railway Administration decided (February 1973) to offload the left over work from contractor 'X' without any penalty, holding that no appreciable variation in quantities was anticipated. Two new contracts valued at Rs. 12.33 lakhs and Rs. 30.59 lakhs (at 100 per cent above par value) were entered into in May 1973 with contractor 'Y'. During execution, not only the quantities underwent large variations but also new bridges were added. Thereupon, contractor 'Y' claimed (March|April 1976) higher rates on the plea that the scope of the works had since changed. He also contended that non-provision of service roads by the Administration in certain cases had cost him more in terms of longer lead for transportation of material. The Administration agreed (June 1976) to make payments at rates varying between 230 per cent and 300 per cent (as against the earlier rate of 100 per cent) above par value for different items of work. This resulted in incurrence of extra expenditure of Rs. 10.68 lakhs. The works were completed in March 1978|June 1978 in reach XIV|XV as against the scheduled date of 30th June 1974.

The following are the salient points in this case :

1. There was a delay of 4 years in completion of the works.
2. The Railway Administration failed to make a correct assessment of the quantities even after the work had progressed to the extent of 90|67 per cent.
3. Omission to take note of sloping terrain-an obvious factor at the time of surveys-led to change in plans.
4. The various lapses on the part of the Railway Administration resulted in extra expenditure of Rs. 10.68 lakhs.

I (v) Southern Railway—Extra expenditure due to changes in the scope of work

The Railway Administration invited tenders in August 1978 for execution of earthwork in reach III of the work 'doubling of the track between Chalakudi and Angamali'. The tender schedule was, however, not based on any approved plans, but was drawn up on the basis of an old working section designed at the time of survey in 1976. Contract (value : Rs. 10.80 lakhs) due for completion by 6th August 1980 was entered into with the lowest tenderer on 7th February 1979. Within four months of commencement of the work (20th February 1979) the Railway Administration decided (June 1979) that since excavation in hard Narikkals,

specially near the station approaches, was difficult, the existing line need not be lowered in particular chainages as contemplated earlier. Instead, the level of the new line being laid was to be suitably raised. Thus, the complexion of the contract was completely changed as excavation was replaced by formation of bank, resulting in reduction (16,170 cums.) of quantities under "earthwork in excavation" and increase (33,300 cums) in quantities under "earthwork in formation". The quantities of "earthwork in formation" in excess of tolerance of 25 per cent were got executed (August 1981) at the higher rate of Rs. 250 per 10 cums against the original rate of Rs. 115 per 10 cu ms resulting in extra payment of Rs. 2.76 lakhs. Provision of a retaining wall and turfing the newly formed bank decided in May 1981, was also entrusted (August 1981) to the same contractor without inviting tenders at higher rate viz. 145 per cent above basic schedule of rates (BSR) against 35 per cent above BSR provided ab-initio in the agreement for such items of work. The extra payment to the contractor on this account worked out to Rs. 1.36 lakhs.

Had the Railway Administration finalised the plans for the work well in time before the tenders were invited, the extra expenditure of Rs. 4.12 lakhs incurred in a work contracted for Rs. 10.80 lakhs could have been avoided.

I (vi) Southern Railway—Earthwork for a diesel loco shed

A contract (value : Rs. 13.48 lakhs) for earthwork for loco-shed at Krishnarajapuram due for completion by 29th September 1981 was executed (November 1980) with M|s. 'R'. The contractor could not complete the work by this date as shifting of certain telephone posts-electric posts had not been done by the Railway Administration. The contractor demanded 100 per cent increase in the rates. The Railway Administration did not agree to it, and paid him Rs. 8.75 lakhs for the work done upto 29th September 1981. Tenders were again invited in March 1982 after enhancing the quantities as per original contract by 25 per cent and deducting therefrom the work already done by contractor "R". The contract was awarded to another contractor 'S' in May 1982 at the risk and cost of the defaulting contractor 'R'. The total value of the work now accepted was Rs. 10.23 lakhs, against Rs. 8.13 lakhs as admissible under the previous agreement. This involved an extra expenditure of Rs. 2.10 lakhs. The work was to be completed by 30th June 1982. This date was extended to 30th September 1982 and again upto 31st May 1983. The work is still in progress (November 1983), though no formal extensions had been granted. In the meantime contractor 'R' went in for arbitration (September 1982|June 1983) and claimed Rs. 5.02 lakhs for the work done|gains prevented and refund of security

deposit. The contractor also claimed interest charges on his dues. The final outcome is awaited (November 1983). Had Railway Administration taken timely action for removal of hinderances at the site of the work, the extra expenditure of Rs. 2.10 lakhs as also the liability, if any, arising out of arbitration could have been avoided.

I (vii) Southern Railway—Provision of underground drainage arrangements to a staff colony

Provision of underground drainage arrangements for the staff colony at Tirunelvelli (estimated cost : Rs. 3.24 lakhs) was sanctioned in March 1975. The contract (value : Rs. 3.05 lakhs) was awarded in November 1977 to contractor 'P'. The work was to be completed by 1st October 1978. The value of the contract was revised (February 1980) to Rs. 3.91 lakhs. About two third of the agreemental value viz. Rs. 2.61 lakhs related to works like construction of septic tanks, collection well etc. to be carried out on private land which was still to be acquired. However, no serious effort for the acquisition of the land was made upto July 1978 (more than three years after the sanction of the estimate) when the actual extent of land to be acquired was communicated to the Revenue authorities. Thereafter, the matter remained under correspondence between the Railway Administration and the Government of Tamil Nadu. The contractor had all along been complaining about the non-handing over of the land to him, which had resulted in his work coming to a standstill from April 1978 onwards. In January 1982, the Administration decided to carry out the work in the newly acquired land. In June 1982 the Administration conceded the contractor's request to fore-close the contract. The value of the work done by the contractor was assessed at Rs. 1.30 lakhs, as against Rs. 2.61 lakhs being the value of the work left over. A fresh contract was entered into with contractor 'Q' in November 1982 for the remaining work at a cost of Rs. 4.84 lakhs resulting in approximate extra expenditure of Rs. 2.23 lakhs. The work is still in progress (July 1983).

II South Central Railway—Overpayment to a contractor

Contract for the work "Development of a goods complex and provision of additional facilities at Sanatnagar" was awarded to M|s. 'H' on 26th April 1979 for a total value of Rs. 32.1 lakhs. The stipulated date for completion of the work, commenced in May 1979, was 30th September 1979. Despite repeated reminders, the contractor did not complete even 30 per cent of the work by the stipulated date. Even after three extensions upto 30th November 1980 (14 months after the original date of completion) the

progress was only 52 per cent. The contract was, ultimately, terminated with effect from 30th November 1980 at the risk and cost of the defaulting contractor and a fresh contract for the left over work was entered into (July 1981) with another contractor 'J' at much higher rates. The amount of risk cost recoverable from the defaulting contractor was assessed (October 1982) at Rs. 5.80 lakhs. During execution of the work by contractor 'H' the assistant engineer concerned had authorised, 'on account' payments on lump-sum basis, without detailed measurement of the earthwork done, even though the progress of his work was far from satisfactory. The final measurements of the earthwork taken in June| July 1981 showed over-payment of Rs. 1.41 lakhs to contractor 'H'. In the meantime even the cash security deposit of Rs. 1.50 lakhs had been released to contractor 'H' in September 1980 on the strength of a guarantee bond executed by the State Bank of Hyderabad. Subsequently, the guarantee bond also could not be encashed as a result of a stay order obtained by the contractor. The total amount recoverable from the defaulting contractor worked out to Rs. 7.21 lakhs. The Railway Administration stated (July 1983) that 'the lapse on the part of the Assistant Engineer, which had resulted in an overpayment of Rs. 1.41 lakhs to contractor 'H' was being dealt with separately'.

In this connection, the following points emerge.

Keeping in view unsatisfactory performance of contractor 'H' it was irregular on the part of the Railway officials concerned to have allowed 'on account' payments without detailed measurements and again to have released cash security deposit in exchange for a guarantee bond. But for these lapses, the Administration could have dealt with the contractor more effectively.

III. South Eastern Railway—Injudicious acceptance of a tender

According to General Conditions of Contract, works are not to be entrusted to contractors whose capabilities and financial status have not been proved to the satisfaction of the Railways. The South Eastern Railway Administration floated an open tender in December 1977 for "Construction of inspection pits, column foundations, etc. at the new electric loco shed, Bondamunda". Out of nine tenderers, the work was awarded (June 1978) to the lowest tenderer, firm 'O' at a cost of Rs. 8.55 lakhs (at 79 per cent above basis rates). This firm was new to the Railway. The Chief Engineer, Construction (tender accepting authority) had expressed (February|April 1978) grave doubts about the capability of the firm as well as the workability of its low rates. How-

ever, the Associate Finance Branch, on being referred to, declined to make any comments in the matter. Consequently, the Chief Engineer accepted the tender, still expressing has doubts about the workability of the rates. In 14 months the firm exeed ted works costing Rs. 22 thousand only and abandoned the work in August 1979. The Railway Administraton awarded the contract for the left over work to another firm 'V' in February 1980 for a total value of Rs. 13.91 lakhs (at 177 per cent above basic rates), at the risk and cost of the defaulting firm 'O'. The amount due from firm 'O' after adjusting its assets available with the Railway Administration, worked out to Rs. 4.83 lakhs. The prospects of its recovery are bleak, as the firm has no further assets available with any other Railway or Civil Authority.

If the lowest tender of firm 'O' had been rejected and the work awarded (at 117 per cent above basic rates) to the second lowest tenderer (a working contractor of the Railway), extra expenditure of Rs. 3.05 lakhs (difference between the rates of firm 'V' and the second lowest tenderer) could have been avoided.

IV (1) South Central Railway—Working of Zonal Contracts

According to the extent rules a zonal contractor is required to execute all works of petty nature including new works, additions and alterations to existing structures, special repairs etc. subject to contract value of such works not exceeding Rs. 50,000. Zonal contracts are operative for a period of one year from 1st July to 30th June. A review of the working of zonal contracts. revealed a number of irregularities involving extra expenditure of Rs. 28.57 lakhs, as indicated below:

Nature of irregularity	Amount of extra expenditure
(1) Several works which could have been economically got executed through zonal contractors, were entrusted to other agencies at higher rates during 1980-81 and 1981-82	Rs. 11.00 lakhs
(2) While considering tenders for zonal contracts for 1979-80, the Railway Administraton failed to explain the extent of escalation already accommodated in the Railway's Revised Schedule of Rates (SOR) of 1979 and obtain lower rates (quoted by tenderers in terms of percentages above SOR) through negotiations with the tenderers. This resulted in acceptance of higher rates by the Adminis-	

1	2
tration during 1979-80. (The rates accepted even two years later in 1981-82 were lower despite inflation in the meantime)	Rs. 5.86 lakhs.
(3) Works costing R. 22.30 lakhs were split up in order to bring them within the purview of zonal works costing upto Rs. 50,000 each, and then executed through zonal contractors at higher rates.	Rs. 5.45 lakhs.
(4) In a number of cases lower offers had been rejected injudiciously. In 5 cases lower offers were rejected during 1980-81 and 1981-82 on the plea that rates lower than those in the Railways Standard Schedule of Rates should be deemed as unworkable, even though in other cases such rates had been duly accepted by the Railway Administration during the same years. In 6 cases lower offers were rejected on the ground that tenderers had already been allotted work in some other zones, while instances existed in which 7 to 8 contracts had been awarded to the same contractor.	Rs. 4.43 lakhs.
(5) The tender committee consisting of the same officials did not follow a uniform approach while recommending acceptance or rejection of the various tenders. This led to rejection of lower offers in some cases. In 4 cases lowest offers were rejected on the ground that the tenderer had deposited only part of the earnest money, while in another case an offer had been accepted on the basis of a guarantee bond which was no longer valid, and in still another case a tenderer who had not deposited earnest money was asked to attend negotiations after paying the earnest money.	Rs. 1.83 lakhs
Total	Rs. 28.57 lakhs

It was also noticed that 63 per cent of the zonal contracts were not available for operation by the Scheduled date of 1st July during the years 1977-78 to 1981-82. This resulted in delayed execution of works.

The details of the above cases are given in Annexure XVI. IV (ii) Southern Railway—Working of Zonal Contracts.

Between December 1980 and July 1981, eight estimates were sanctioned for carrying out improvements like provision of additional shelves verandas and flooring etc. (cost ranging between Rs. 130 and Rs. 11,000) to 108 type I staff quarters situated at 20 stations spread over a distance of 250 kms. Instead of awarding

these petty works individually to the zonal contractors, the Railway Administration clubbed them into one work, invited (July 1981) open tenders therefor, and awarded (June 1982) the work to a contractor at higher rate, involving extra expenditure of Rs. 2.32 lakhs. The Administration had, similarly, grouped several minor works of improvements to staff quarters at seven stations and entered into two separate special contracts in May 1982 and September 1982, instead of getting them done through zonal contracts. The extra expenditure on this account amounted to Rs. 1.15 lakhs. Thus, the entire extra expenditure of Rs. 3.47 lakhs was avoidable, as these works, legitimately, fell within the purview of zonal contracts.

The total extra expenditure incurred by the various Railway Administrations in the cases mentioned above, works out to Rs. 279.26 lakhs.

CHAPTER VIII

PURCHASES AND STORES

16 Non-recovery of penalty for supply of substandard coal from M|s. Singareni Collieries Company Limited.

The terms and conditions for supply of coal to Railways provide, inter alia, that quality control would be exercised by Railway Inspectors at the loading/mining end through joint sample test and if the ash and moisture content exceeded a specified maximum, penalty would be levied in the form of a deduction of a specified amount from the suppliers' bills for every one per cent increase in the ash and moisture content. The terms and conditions in force prior to February 1980, prescribed a deduction of Rs. 0.55 per tonne, for every one per cent increase in ash and moisture content, in excess of 30 per cent. During the period of 5 months, August 1979 to December 1979, the supply of coal from M|s. Singareni Collieries was found to contain ash and moisture content ranging from 29.3 per cent to 48.8 per cent and penalty of Rs. 0.43 lakh was levied on the firm.

Between February 1980 and October 1981 though regular supply of coal was maintained, joint sampling of coal was not conducted to assess the ash and moisture content. It was stated that M|s. Singareni Collieries were not agreeable to such joint sampling in the absence of an agreement. The question of entering into formal agreement with M|s. Coal India Limited and M|s. Singareni Collieries for supply of coal, in lieu of terms and conditions in force from time to time, was under consideration of the Ministry of Railways (Railway Board) from 1973. A formal agreement with M|s. Singareni Collieries executed in November 1981 provided deduction at the rate of Rs. 1.51 per tonne for every one per cent increase above 32 per cent in the ash and moisture content. Accordingly, in respect of supply of sub-standard coal after execution of formal agreement (November 1981) penalty of Rs. 9.47 lakhs was levied for the period up to March 1982.

Meanwhile, as already stated, during the period February 1980 to October 1981 when no agreement was in force, no ins-

pection at the loading/mining end was undertaken by the Railway Inspectors for assessment of ash and moisture content of coal supplied. A total quantity of 2.81 million tonnes of coal supplied by M|s. Singareni Collieries, during the period (February 1980 to October 1981) was accepted by the Railways without joint sampling tests to assess the ash and moisture content of coal for levy of penalties on the suppliers.

It was however, noticed that the supplies during the period February 1980 to October 1981 also contained high ash and moisture content—42 per cent in the month of October 1980 as was revealed in the monthly reports sent by the Southern Railway Administration (which received the coal) to the Chief Mining Adviser, Dhanbad.

The ash and moisture content in the coal supplied by M|s. Singareni Collieries before February 1980 and after October 1981 are shown below :

Period	Number of samplings	Ash & moisture content (Percent)		Number of samples containing more than 30/32 per cent ash & moisture content
		Minimum	Maximum	
August 1979 to December 1979. . . .	56	29.3	48.8	52
February 1980 to October 1981. . . .	No sampling done			
November 1981 to March 1982. . . .	117	24.2	60.9	103

Based on the ash and moisture content in the ten months (173 samplings) given above the average ash and moisture content during the period, when no samples were tested, would be not less than 40 per cent. This would have attracted penalty for the excess of 8 per cent of ash and moisture content involving a recovery of around Rs. 2.47 crores at the rate prevailing after February 1980. In the absence of sampling tests the Railway Administration did not recover penalty from M|s. Singareni Collieries. The Administration stated (August 1983) that in the absence of a formal contract, the Collieries were not agreeable for joint sampling.

17. Non-realisation of marine insurance claims

Import shipments of Diesel Locomotive Works were provided insurance cover by National Insurance Company Limited by operating a marine open cover insurance on maintenance of a deposit of Rs. 50,000 towards premium that might become due and payable. The arrangements envisaged that Diesel Locomotive Works should give declarations to the insurer within 48 hours of each and every shipment followed by closing particulars of each vessel showing details of place of despatch, bill of lading, amount of insurance required on goods etc. The premium bills were to be paid as soon as they were received. The premium deposit of Rs. 50,000 made in 1978 was intended to cover the lead time between the date of shipment and the time for payment of premium and was adequate for cargo worth rupees one crore per month.

A test check of claims preferred by Diesel Locomotive Works showed that during 1980 and 1981 there were abnormal delays in furnishing the declarations and in payment of premium bills resulting in inadequate premium cover for the cargoes received and repudiation of claims by the Insurance Company. In 10 cases (test checked by Audit) pertaining to 1980-shipments, the delay in declarations was ranging from one month to eleven months from the date of discharge of the vessel. Similarly, in 14 cases of 1981-shipments, the delay was ranging from 8 days to 5 months. The disposal of the premium bills was also not prompt. Consequently, the balance of premium to be paid to the Insurance Company had risen from Rs. 3.19 lakhs in January, 1981 to Rs. 6.81 lakhs in November, 1981 (including Rs. 2.70 lakhs relating to 1980).

In November 1981—December, 1981 the National Insurance Company returned 281 insurance declarations for want of adequate cash deposit. They also stated that in terms of Insurance Act they could assume risks for despatches made on and from 23rd November, 1981 only to the extent of sums insured coverable with the premium of Rs. 37,500 (out of the deposit) cumulatively as premium payable. The claims outstanding with insurer (for loss, damage etc. for locomotive parts) in respect of shipments relating to 1980 and 1981 were for 99) cases—Rs. 35.55 lakhs and 182, cases—Rs. 150.56 lakhs respectively including Rs. 89.90 lakhs for loss of goods destroyed by fire in Calcutta Port Trust on 14|15 December, 1981. As a result of returning the declarations by the Insurance

Company for want of cash deposit premium these claims have not been realised so far. The matter has also not been pursued with the Insurance Company for settlement of the claims.

The deposit of Rs. 50,000 made in 1978 was inended to cover shipments of value Rs. 1 crore per month. The total value of import by Diesel Locomotive Works during the years 1980-81 and 1981-82 were of the order of Rs. 12.19 crores and Rs. 18.99 crores respectively and consequently the premium deposit had become inadequate. In spite of the Insurance Company pointing out the inadequacy of the deposit, the DLW Administration did not take action till December, 1981 when the deposit was enhanced to Rs. 2.5 lakhs. The Insurance Company did not, however, accept the earlier declarations and held that the enhanced cover was applicable to shipments after November, 1981 only.

Thus, the non-observance of procedure for preferment of insurance claims and the delay in reviewing the adequacy of cash deposit (to cover the premium amount) have resulted in outstanding claims of Rs. 1.98 crores, the settlement of which appears to be remote.

A similar review of claims against insurance by Chittaranjan Locomotive Works (C.L.W.), Chittaranjan showed that C.L.W. Administration had not also maintained adequate deposit till January 1982 leading to refusal of liability by the Insurance Company to the extent of Rs. 4.21 lakhs.

18. Southern Railway—Procurement of brake blocks

In July 1978 the Railway Administration placed an order on a firm of Nagpur for fabrication and supply of 35,000 brake blocks at a cost of Rs. 3.85 per piece. The contract inter alia provided issue of 466.2 tonnes of cast iron scrap at the rate of 14 Kgs. per brake block on execution of a bank guarantee for a sum of Rs. 4,19,580 valid for 13 months from the date of issue of guarantee bond. The supply was to be completed by December 1978.

The firm supplied first lot of 1700 brake blocks in August 1978 from its own material to be replenished by the Railway as per contract and proposed to lift C.I. scrap in instalments of 166 tonnes by providing bank guarantee for Rs. 1,49,400 and repeat the process till the order was completed. The Railway Administration accepted the firm's proposal and despatched 166

tonnes of scrap valued at Rs. 1.49 lakhs between September and October 1978. Against this quantity of scrap, the firm supplied 11,450 brake blocks up to February 1979. In April/May 1979, the Railway Administration again supplied 160.29 tonnes of scrap. In January 1980, the Administration asked the firm to revalidate the bank guarantee. The firm, accordingly, extended the guarantee up to 18th October 1980 and supplied another lot of 1750 brake blocks in August 1980. A further quantity of 23.7 tonnes of scrap was issued to the firm in September 1980. No further supplies of brake blocks have been made by the firm so far, nor the bank guarantee revalidated. Thus, against a total quantity of 349.990 tonnes of scrap supplied by the Railway (equivalent to 25,000 brake blocks) the firm had supplied 13,200 brake blocks only (equivalent to 184.8 tonnes of scrap) leaving 165.19 tonnes of scrap with the firm (value Rs. 1.49 lakhs and freight Rs. 0.26 lakh). The Railway Administration did not make any timely effort to realise its dues from the firm.

The Railway Administration had failed (1) to monitor receipt of fabricated items against issue of raw material, (2) to obtain collateral security for the raw material issued to outsiders and (3) to take remedial action against defaults in performance of contract.

The Railway Administration stated (November 1983) that it was contemplating legal action against the firm. Such legal action has not been initiated so far.

CHAPTER IX

LAND MANAGEMENT

19. Land management in Railways

The Indian Railways own vast areas of land throughout the country. The total land holding as on 31st March 1983 was 8.30* lakhs of acres valuing Rs. 50,000 crores at present day cost. The area of land under Railway's own utilisation viz., railway tracks, service buildings, railway colonies etc. is about 5.56* lakhs of acres.

Land in excess of the present and prospective requirements is classified as 'eligible for disposal' on commercial basis. Area of such lands works out to 2.74* lakhs of acres, valuing about Rs. 15,000 crores.

The Ministry of Railways (Railway Board) directed the Railway Administrations (June 1980) to give highest priority to the management of land by exercising greater control and taking dynamic action to eliminate encroachments, and also make concerted efforts to derive maximum revenue from Railway land. Hitherto, the Railways were realising licence fee for Railway land on the basis of 6 per cent of the capital cost of land as assessed by civil authorities. Keeping in view that the licence fee being realised was too low with reference to the price prevailing in the market, the Ministry of Railways (Railway Board) decided (June 1980) to recover licence fee for shopping|commercial plots, special plots or godowns on Railway land etc., near about the rate in the market instead of merely on the basis of 6 per cent of the capital cost of land as advised by the civil authorities. To ensure efficient land management and to maximise the revenue from the available land, the Board decided (June 1980) to set up land management cells on Railways under the control of Chief Engineer (General) in level I on Central, Western, South Eastern and Northern Railways, and under Additional Chief Engineer in level II on other Railways.

*Railway-wise details are given in Annexure XVII.

The Ministry of Railways (Railway Board) had anticipated an additional revenue to the extent of Rs. 1 crore from items like licencing of land for shopping, commercial plots etc. during the year 1980-81 on each of North Eastern and Northeast Forntier Railways. Similarly earnings of about Rs. 1.5 crores each from Eastern, Southern and South Central Railways and about Rs. 2 crores each from Central, Northern, South Eastern and Western Railways were expected. The total extra revenue during 1980-81, after placing the land management cells under the control of the Chief Engineer/Additional Chief Engineer, by way of licencing land for shopping and commercial plots etc., was expected to be about Rs. 15 crores for all Railways.

A review of the land management records of the various Railways by Audit revealed the following :

(i) Inadequate and inefficient maintenance of land plans

(ii) High incidence of encroachments and inadequacy of action for its removal

(iii) Lack of concered efforts to exploit surplus land to derive maximum revenue

(iv) Non-execution of agreements for land licensed.

I. *Land Plans*

Responsibility to preserve unimpaired title to all land in its occupation and to keep it free from encroachments devolves on the Engineering Department. Where, however, the management of any land has been accepted by a State Government, this duty rests on that authority during the period of such management. With a view to obviate any litigation, accurate land plans of all railway lands are required to be maintained and boundaries adequately demarcated and verified therewith at regular intervals.

The work of preparation of land plans and getting them accepted by the Revenue Authorities of the State Government is far from satisfactory on all the Zonal. Railways. The review done by Audit showed that the Railway Administrations are not in possession of up-to-date and complete records to prove the ownership of the entire land belonging to them. In the absence of proper and relevant records it could not be known if

periodical verification of the boundaries of the land, as per the extant rules, was regularly done by the Railway Administrations. While on South Eastern and Northern Railways, out of 5672 and 7248 land plans—as many as 2932 and 3736 (51 per cent of the total plans) plans are still to be got certified by the revenue authorities. On North Eastern Railway, the percentage of land plans yet to be certified is 33.5 per cent (1036 land plans out of 3090). On Southern Railway, land for track including the colonies and yards falling within the length of about 1540 route kms. is yet to be re-surveyed for updating the land plans. Similar re-surveys ordered by South Central Railway Administration in 1969, 1970 and 1981 for drawing up the land plans in respect of Vijayawada, Hubli and Guntakal Divisions respectively, involving 752 kms. of track are yet to be completed (July 1983). The re-survey work for Secunderabad and Hyderabad Divisions for 9.22 and 9.72 miles of land respectively is also yet to be taken up.

Non-maintenance of up-to-date and complete land plans and wrong demarcation of land resulted in unnecessary litigation and loss of title of land etc., in many cases. Instances of such cases are given in the succeeding paragraphs:

1. Central Railway

Railway siding at Birla Nagar was opened in the year 1920 for the Gwalior State Trust Limited. The siding was taken over by the Central Railway in 1961. Even after the take over, the land along the siding was being used by various industries for storing coal and other goods. Notices served by the Railway Administration on the parties concerned to remove the goods and to pay wharfage charges were challenged by some of the firms, disputing the Railway's title to the land. The parties have moved the court.

Non-examination of land records, while taking over the siding in the year 1961 and at the time of registration of sale deed in 1962, was the root cause of dispute to the Railway's ownership of the land.

2. Northern Railway

Notified Area Committee, Loharu occupied (1947) unauthorisedly 13,465 sq. yards of railway land opposite to station building and built shops thereon. The Railway Administration

was unaware of this encroachment which was brought to their notice by an outsider in 1956. The Railway Administration filed an eviction application (February 1957) under the Government Premises (Eviction) Act 1950. But this Act was declared 'Ultra Vires' by the High Court in 1957. Though new eviction Act was promulgated by Government in 1958, the Railway Administration did not file a fresh application under the new Act. Action for eviction under the new Act could not be taken by the Railway Administration as the land plans, indicating the Railway Administration as the sole and absolute owner of the property as per revenue records and joint demarcation carried out by the Railway and the Revenue Authorities in 1960, corroborating Railway's clear title to land could not be produced. A fresh declaratory suit claiming possession of the land filed by the Railway Administration (1977) was decided (August 1980) against the Railway Administration.

The Railway Administration went in appeal (October 1980), which is still (December 1983) sub judice.

The non-realisation of revenue so far (upto March 1981) is Rs. 11 lakhs.

3. North Eastern Railway

(i) A big plot of land (area not known) near Gorakpur was licensed to the Provincial Armed Constabulary on or about 1968 on a nominal rent of Rs. 20 per annum. No payment of rent was, however, made by the Provincial Armed Constabulary, after December 1974. In the revenue records, the land is now being shown as "Rajya Sarkar Ki Chandmari" meaning that the land belongs to the State Government. The Railway Administration has since filed a writ in the Civil Court for correction of revenue records.

(ii) Railway land measuring 366' x 100' near Chhupra Junction was handed over (August 1901) by the Railway Administration (ex B.N.W.R.) to Chhupra Municipal Board for management, with the stipulation that the trees, fencing etc., on the land would remain the property of the railway. The Railway Administration noticed (January 1974) that permanent structures were being constructed by the Chhupra Municipality on the railway land without obtaining permission from the Railway Authorities. The Municipal Authorities, despite Railway Administration's request (October 1975) to stop further construction, completed the construction of shops and rented them

out to outsiders. The opportunity value unrealised for the period 1974 to 1980 works out to Rs. 14.42 lakhs approx).

The Railway Administration stated (April 1981) that eviction proceedings could not be initiated for want of proof of the Railway's ownership of the land.

4. *Northeast Frontier Railway*

The Tezpur—Balipara Railway with all its assets was purchased by the Union Government from T. B. Tramway Co. Ltd. in 1952. As per the terms of the agreement, the land belonging to the Ex. T. B. Tramway Co. Ltd., had been transferred to the Railway, but the actual mutation in favour of the Railway had not been done immediately. On being approached for actual mutation in 1972 (20 years after transfer of the land), the Settlement Officer, Darrang requested (July 1972) the Railway Authorities to deposit an amount of Rs. 2.90 lakhs towards the cost of Sarkari Land and capitalised value of land revenue before transfer of the said land in favour of the Railway Administration in the records of the Civil Authorities. No payment was due from the Railway, as the assets already stood transferred in the name of Union Government. The dispute has not yet been resolved, though the land had been acquired 30 years before.

5. *Southern Railway*

(i) A plot of land measuring 1163 sft. (108 sqm.) was leased to a firm at Tellicheery in May 1979 for erecting a temporary shed for stacking materials (coir) to be booked by Railway, on an annual licence fee of Rs. 124 per annum. The firm, however, constructed permanent structures including three shops and let out the same on a monthly rent of Rs. 1200. The Administration terminated the licence agreement with effect from August 1980 and preferred (October 1982) claim for Rs. 3.56 lakhs towards damages etc. The firm obtained a stay order in November 1982. The case is subjudice (November 1983).

(ii) On borrow pits dug on Railway land near Miller's Road, Bangalore, getting filled up with water during rainy season, the City Corporation of Bangalore deemed it as a pond and brought

it under the purview of the Government land and sold it to a private party for the construction of a cinema house. The case is stated to be pending in the court of Civil Judge, Bangalore since 1975.

6. *South Eastern Railway*

During the period 1964 to 1978, several construction estimates worth Rs. 429 lakhs for acquiring 5,258 acres of land were sanctioned by the Ministry of Railways (Railway Board). Accordingly, project-wise land acquisition proposals were submitted by the Railway Administration to the State Governments, the land acquisition proceedings were completed, and physical possesson of the land was taken by the Railway Administration. Though the projects were completed long back, land acquisition registers have not been maintained. Some of the certified plans are still due from the Revenue Department. As a result, the actual acreage for which land acquisition proceedings had been initiated and how much of land was actually handed over to the Railway Administration by the State Government, are not ascertainable. Further, 100 court cases have also come up for enhancement of compensation for the land taken over from private parties. In the absence of up-to-date land acquisition registers maintained by the Railway Administration, and receipt of certified land plans from the State Government, the Railway Administration's defence against the claims for enhanced compensation is likely to present difficulties.

II. *Encroachments on Railway land*

The Public Accounts Committee (7th Lok Sabha) had in para 1.24 of their 3rd Report (1980-81) adversely commented upon the growing incidence of encroachments of large chunks of Railway land, and had asked the Ministry of Railways (Railway Board) not only to get the existing encroachments cleared but also to check further encroachments on railway land. Again, the Public Accounts Committee (7th Lok Sabha) in para 53rd of their 94th Report (1982-83) stressed that it is imperative for the Railways to protect their land against all encroachments.

However, it is observed that the encroachments had been increasing from year to year. The total number of encroachments which stood at 67,911 for all Zonal Railways as at the end of 31st March 1978, shot up to 95,525 by the end of 31st

March 1983, involving 39.91 per cent increase, as indicated below :—

Railway	No. of encroachments as at the end of March 1978	No. of encroachments as at the end of March 1982	No. of encroachments removed during 1982-83	No. of encroachments made during 1982-83	No. of encroachments as at the end of March 1983
1	2	3	4	5	6
Central . .	13,261	20,095	272	82	19,905
Eastern . .	11,465	12,134	1,747	1,412	11,799
Northern . .	4,387	8,796	1,289	5,797	13,304
North Eastern	2,268	1,671	52	2,049	3,668
Northeast Frontier	19,001	23,523	1,037	1,182	23,668
Southern . .	3,086*	3,531	661	683	4,553
South Central .	3,877*	5,059	486	42	4,615
South Eastern .	7,211	8,040	348	29	8,021
Western . .	3,355	5,964	3,477	3,005	5,492
Total . .	67,911	88,813	9,369	15,581	95,025

The total area of land under encroachment was assessed (October 1982) at 7,032 acres. Its value was, however, not assessed by the Railways.

Some illustrative cases of encroachments on Railways' land are narrated below :—

1. Central Railway

Railway land measuring 9502 sq. metres at Wadi Bunder, Bombay, taken back (January 1980) by the Railway from the Defence Department for its own operational needs for development of Wadi Bunder Goods Yard, was licensed out (January 1980) to a firm for three years (upto December 1982). The party was reluctant to pay licence fee as agreed to by it, but made payments at a much lower rate. The Railway Administration terminated the agreement with effect from 31st August 1981. The outstanding dues against the firm amounted to Rs. 28.56 lakhs. The land continues (October 1983) to be in unauthorised possession of the party (cf. Paragraph 20).

2. Eastern Railway

34 acres of land were acquired in February 1960 by the Collector, Monghyr on behalf of Eastern Railway for the purpose of construction of Staff quarters. After completion of acquisition proceedings, vacant possession of the land was given to

*figures as the end of September 1978.

the Railway Administration in July 1961. But, before construction could begin, it was unauthorisedly occupied (1965) by Bihar Military Police. Bihar Government's directive to release immediately 20 acres of land under cultivation by them, as also to pay Rs. 4.17 lakhs (upto 1973) towards accrued licence fee has been ignored by the Bihar Military Police. In the meantime, the outstanding licence fee has gone up to Rs. 8.67 lakhs (upto March 1981).

3. Northern Railway

(i) Land measuring 136 acres out of 373 acres acquired in 1949 for yard development and staff quarters at Rosa, Moradabad Division was handed over to District Magistrate in 1951 for management on deduction of 10 per cent of the proceeds for administrative expenses. Except two payments of Rs. 656 and Rs. 364 (October 1954 and September 1980 respectively), no further payment has been received from the civil authorities, while the land continuous to be in their possession.

(ii) A sum of Rs. 25.41 lakhs was paid (March 1968) by the Railway Administration to the Land and Housing Department of Delhi Administration for transfer of 75 acres of land for construction of staff quarters in Patparganj area, @Rs. 7 per sq. yard. The work of allottment of land was later on transferred to the Delhi Development Authority and the rate of land was revised upward from Rs. 7 to Rs. 25 per sq. yard. The Delhi Development Authority handed over only 15 acres of land worth Rs. 18.15 lakhs to the Railway Administration. The refund of the balance amount of Rs. 7.26 lakhs is yet (September 1983) to materialise.

(iii) Two plots of the Railway land measuring 5073 sq. yards situated in front of New Delhi Railway Station were licensed (1948) to the then Delhi Municipal Committee on the recommendations of the Ministry of Rehabilitation, at a nominal fee of Rs. 2 per annum, for temporary resettlement of refugees from West Pakistan. Last extension for one year ending on 7th April 1954 was granted as a special case, under a clear warning that licence fee at 6 per cent per annum of the market value of

the land would be charged with effect from 8th April 1954, if the land was not vacated. Though 29 years have elapsed, yet the Municipal Corporation of Delhi has neither vacated the land nor paid the railway dues amounting to Rs. 21.79 lakhs (upto 31st December 1980).

(iv) A firm of Delhi had been given on lease by Railway an area of 2743 sq. yards near Connaught Place, for a period of 10 years from 1st January 1963 to 31st December 1972. The agreement provided for revision of licence every five years. On the party's failure to pay the revised licence fee with effect from 1st January 1968, the lease was terminated with effect from 31st December 1972. The firm, however, continues (September 1983) to be in unauthorised occupation of the railway land. The case was referred to Arbitration in July 1981, in terms of the lease agreement which had already been terminated. The total outstanding dues against the firm amount to more than Rs. 61 lakhs.

The Public Accounts Committee of Seventh Lok Sabha (1982-83) recommended in para 56 of their 94th Report that the case should be investigated by a high powered body independent of the Railway Board. This is yet to be done (September 1983).

4. Northeast Frontier Railway

For construction of Railway Hospital and staff quarters, the Survey and Construction Organisation acquired 131 bighas of land at Rangapara North from the Garden Authority through the State Government in October 1965 at a cost of Rs. 4.82 lakhs. However, at the time of taking physical possession of land, the Railway Administration omitted to take over a part of the land measuring 49 bighas under tea cultivation. Retaining adverse possession of the land the Garden Authority, filed an appeal for enhancement of the compensation. Consequent on Count's degree, the Railway Administration deposited Rs. 1.45 lakhs with the State Government for disbursement to the Garden Authority, though the part land had not been still handed over to the Railway. The Railway Administration is losing the amount of licence fee that could have been earned, if it had licensed this land on commercial basis. The bills pre-

ferred by the Railway Administration on this account for Rs. 23.24 lakhs for the period from June 1976 to June 1982 on the Garden Authority are yet (September 1983) to be paid.

5. South Eastern Railway

South Eastern Railway was unaware of its ownership of 25 acres of land between Howrah maidan and Dasnagar, which came to their notice (July 1981) only when they proceeded to acquire 43 acres of land (which included 25 acres owned by South Eastern Railway also) in this area for construction of B. G. Railway line on Howrah-Amta Light Railway alignment. The land was under encoachment by the Light Railway Company from 1939. As the Light Railway Company had gone into liquidation, South Eastern Railway could not recover any compensation.

III. Utilisation of surplus land and realisation of revenue therefrom.

The Ministry of Railways (Railway Board's) instructions of October 1952 enjoined that railway land be leased to outsiders at the highest rent that could be secured, subject to a minimum of six per cent of the local market value of the land, as assessed by the local Revenue Authorities at the time of leasing out. The market value of the land was to be reviewed every five years. and the rents revised accordingly. These orders were modified in June 1962 to the extent that the rent should be fixed at a uniform rate of 6 per cent of the market value of the land as assessed by the local Revenue Authorities. The revision of rent was to be done quinquennially in the case of land situated in large towns and commercial centres, while for other locations the rent was to be revised at an interval of 10 years only. It was further enjoined that in order to avoid complaints against recovery of higher rent with retrospective effect, six months notice in advance of the proposed revision should be given to the parties and their unconditional acceptance obtained to pay the revised rent as may be fixed subsequently, or alternatively the party should be called upon to vacate the premises during the currency of the existing licencing agreement. Subsequently, in June 1971, Ministry of Railways (Railway Board) decided that the return of 6 per cent on the market value of land as assessed by the local Revenue Authorities should be treated as the standard rent, but in actual licencing out, the Railway Administration should aim at obtaining the best possible rent. In individual cases, variations from the standard rent may be accepted on merits. In June 1980, Minis-

try of Railways (Railway Board) urged the Railways Administrations to maximise revenue from the railway lands, and directed that licence fees for shopping|commercial plots, special plots or godowns should be near about the rents in the market and not merely based on the low rate worked out on the basis of 6 per cent of capital cost of land. In November 1980 Ministry of Railways (Railway Board) suggested to the Railway Administrations that increase in licence fees to the extent of 15 to 20 per cent be effected every year in metropolis and other cities.

A review of the position of rent recoverable for land leased on various railways showed that in a number of cases the periodical revision had not been done regularly with reference to the above norms. On Eastern Railway, the last revision was done with effect from January 1977; next revision due from January 1982 is still to be done (August 1983). Revision of rent due with effect from January 1982 on North Eastern Railway and from April 1982 on Northeast Frontier Railway has not been done so far (August 1983). No action to identify stations|locations where the annual licence fee could be increased by more than 10 per cent, has been initiated by the Northeast Frontier Railway Administration. On Southern Railway, rents had not been revised at seven stations for want of the market value. In many cases the value of land was advised by the Revenue Department of the State Government after a lapse of as long as 2 to 3 years, and in some cases the intimation regarding the value of land as obtaining in 1976 is still (September 1983) to be received. A few illustrative cases of short|non-recovery of licence fee are given below:—

1. Central Railway

   (i) Rs. 92.86 lakhs were due (December 1982) to be recovered from various parties on account of rent of plots. The oldest case pertained to the year 1968.

   (ii) The land licensed to M|s. Tata Iron and Steel Company (TISCO), M|s. Steel Authority of India Ltd. (SAIL), and M|s. Nathani Steel Private Ltd., at Vidyavihar in Bombay, which had been originally classified by the Divisional Authorities in category II, was downgraded to category III from 1st April 1979 by the Head Quarters office. Consequently, the rate of licence fee was reduced from Rs. 4000 to Rs. 3000 per 100 sq. metres per annum in respect of M|s. TISCO and SAIL and Rs. 1500 per 100 sqm. for M|s. Nathani Steel Private Ltd. The prices of

land in the entire Bombay area having risen steeply since 1975, downward revision was not called for. Besides, the rules provide that, if all the sheds are covered, the rent has to be recovered at double the rate for the entire land. But in this case it has been decided by the Railway Administration to recover extra charges for the covered portion only. Further, the rates recommended by the Divisional Authorities in other cases too have been reduced from Rs. 8,000 to Rs. 6,000 in Mazgaon area and Rs. 12,000 to Rs. 6,000 in Wadi Bunder area for M|s. Bharat Petroleum, while in case of Byculla area (for M|s. IOC), the rate has been kept at Rs. 12,000 per annum per 100 sq. mts. On other Divisions also, the original recommendations of the Divisional Authorities for fixation of rates of rent of land have been drastically reduced. In view of the increasing land prices during the last 5 years, the rates originally recommended by the Divisional Authorities did not warrant such reduction. The reduced rates resulted in approximate loss of revenue to the tune of Rs. 22.41 lakhs per annum.

2. South Central Railway

Instructions were issued (August 1980) by Head Quarters to Divisions to the effect that stations should be classified into seven categories, depending on their commercial importance, and licence fee fixed accordingly between Rs. 250 and Rs. 4,000 per annum for a standard plot of 100 sq. metres. The proposals received from Divisions were approved by Headquarters office in May 1982. The total outstanding dues were assessed at Rs. 96.68 lakhs in March 1983. As many licensees represented against increase in licence fees and did not pay the revised fee, the revised rates were not implemented fully. In some cases the parties filed cases in the courts. The position of each station was reviewed by a committee. As a result of the review, the stations were re-classified (May 1983) into nine categories and the fees initially fixed were revised as ranging between Rs. 75 and Rs. 4,000 per annum per 100 sq. mtrs. The revised fees were to be effective from 1st January 1982. The Railway Administration assessed (June 1983) that re-classification would result in a significant scaling down of the dues by Rs. 33.78 lakhs. The amount of licence fee outsanding even at the reduced scale amounted to Rs. 62.90 lakhs.

3. Western Railway

(i) Proposals for revision of licence fee were sent by Divisional Authorities, Rajkot to the Headquarters in April 1981, classifying the stations for charging licence fee at the revised rates in accordance with the Headquarter's directive of September 1980. After a lapse of two years, in May 1983, the Headquarters office made certain modifications in their directive of September 1980. Accordingly, fresh proposals were submitted by the Division in June 1983, involving recovery of licence fee at higher rates than proposed earlier for certain stations. In the meantime licence fee continued to be charged at the lowest rate in all the cases, resulting in short recovery of licence fee to the tune of Rs. 3 lakhs per annum.

(ii) On Baroda Division of Western Railway, the licence fee for commercial plots already licensed was revised (May 1981) retrospectively with effect from January 1981 without giving six months advance notice of proposed revision. Out of 127 plots licensed, only two parties have so far (August 1983) paid licence fee at the revised rates, and the remaining parties continue to pay at the rates fixed some time in 1966. The resultant short recovery works out to about Rs. 6 lakhs per annum.

(iii) A plot of land measuring about 32,664 sq. mtrs. was handed over (November 1974) at Sabarmati to M|s. Hindustan Steel Ltd., (HSL) on provisional rent of Rs. 12 per sq. m. per annum. No agreement has so far (September 1983), been entered into with the party. Though it is about 9 years since the plot was handed over to the party, and one quinquennial revision of licence fee under usual terms had also fallen due in 1979, the original licence fee has not been finally determined on the basis of the cost of land then existing. The licence fee recoverable for this plot of land at Sabarmati should be Rs. 60 per sq. m. per annum as per approved norms. Based on this rate, the extra amount recoverable from Hindustan Steel Ltd., works out to Rs. 47 lakhs for the period March

1980 to August 1983 at the rate of Rs. 15.67 lakhs per annum. Besides, the Railway Administration had decided (September 1980) that in cases where plots of land were licensed for longer periods, and the licensees were allowed to errect installations or temporary structures thereon, (as in the case of oil depots, steel yards etc), the rate chargeable should be double the ordinary rate. If this factor is also taken into account, the etxra amount recoverable from Hindustan Steel Ltd. upto August 1983 would work out to Rs. 1.05 crores.

(iv) The Railway Administration had permitted IFFCO to use transhipment platform No. 2 at Sabarmati for storage of their fertiliser consignments received from Gandhidham in MG rakes and consigned for subsequent booking in BG rakes. The Railway Administration decided (August 1982) to recover licence fee at the rate of Rs. 10,000 per month. The area of platform No. 2 at Sabarmati being 4319 sq. mtrs. the rate of licence fee due in terms of Chief Engineer's directive of September 1980 works out to Rs. 21,600 per month or Rs. 2.59 lakhs per annum. The short recovery at that rate amounts to Rs. 1.39 lakhs per annum.

Security Deposits

The extant instructions (April 1967) of Ministry of Railways (Railway Board) provide that in all cases of licencing of land, security deposit equivalent to 12 months licence fee should be recovered from outsiders (other than Government Departments). On Central Railway, recovery of such security deposits was outstanding (June 1982) to the tune of Rs. 89.22 lakhs against Oil Companies and other Private parties.

Liquidated damages

The extant instruction, (April 1967) of Ministry of Railways (Railway Board) also provide that in all cases of licencing of land to outsiders, liquidated damages at the rate of 1 per cent per month should be recovered for delayed payments. However, it was seen on Central Railway that no action had been taken till February 1982 to recover liquidated damages or even to include provision for recovery of such charges in the licence agreements.

Outstanding Dues

The total oustandings on account of rent|licence fee on various railways were as under :—

Railway	Amount in lakhs of rupees	As on
Central	172.87	December 1982
Eastern	14.17 (for 3 Divisions)	Not given
Northern	78.49	March 1981
North Eastern	36.50	March 1981
Northeast Frontier	13.91	March 1981
Southern	10.75	December 1982
South Central	63.00	March 1983
South Eastern	82.51	March 1981
Western	15.47	1982
Total	487.67	
	or Rs. 4.88 crores	

Grow More Food

As a part of grow more food campaign surplus cultivable land measuring* 73,508 acres was handed over to the State Governments by the various Railway Administrations. A few illustrative cases in which the railway land could not be got back and continued to be in unauthorised occupation, are listed below :—

1 Central Railway

(i) Railway land measuring 997 acres in Bhusaval Division was handed over (1964-65) to the Maharashtra State Government for 'Grow More Food' (GMF) purposes. The Railway Administration did not receive any rent from the State Government right from the year 1964-65. Generally, the rate of rent charged for comparable land is around Rs. 100 per acre per annum. At this rate Rs. 99.700 per annum would be payable by the State Government. The amount due for the past 18 years works out to Rs. 17.94 lakhs.

(ii) Railway land measuring 1028 acres in Sholapur Division was handed over to Maharashtra State Government from

*Details of total area licensed out under GMF Scheme are furnished in Annexure XVIII.

1958 onwards. Taking into account the low fertility of the soil the licence fee recoverable from the State Government was fixed at Rs. 25 per acre per annum. On this basis, the arrears of rent to be recovered from the State Government (from 1971 to 1983) work out to Rs. 3.28 lakhs.

The Railway Administration, however, does not have detailed records indicating parties to whom the land had been leased by the State Government for cultivation.

2. South Central Railway

Out of 4456 hectares of cultivable land available on South Central Railway as on 31st March 1983, land measuring 698 hectares had been handed over to the State Governments for licensing to cultiavtors. The terms of agreement provided State Government Authorities to retain 5 per cent of the licence fee collected from cultivators and remit balance 95 per cent to the Railway. The amount received from the State Governments during the years 1976-77 to 1982-83 were only Rs. 27,000. The exact amount due from the State Governments could not be known to the Railway Administration as no particulars regarding auction of land and the amount realised were furnished by the State Governments. On the basis of the minimum rate of Rs. 150 per acre (Rs. 375 per hectare) applicable in Vijayawada Division, the total amount outstanding against State Governments towards licence fee for land handed over under GMF Scheme (excluding 5 per cent of the receipts as incidental charges to be retained by State Governments) for the years 1976-77 to 1982-83 would work out to Rs. 20.16 lakhs. The Railway Administration's attempts to get back the lands from the State Governments are yet to frutify, as only 98 hectares out of 796 hectares could be taken back so far (upto March 1983).

3. South Eastern Railway

The total land brought under cultivation under GMF Scheme upto June 1982 was 7250 hectares. Out of it, 1034 hectares were handed over to the State Governments, 4485 hectares allotted to the Railway employees and 1719 hectares to outsiders by the Railway Administration itself for cultivation purposes. The licence fee charged from Railway employees and outsiders was Rs. 150 per acre per annum for single crop. As regards 1034 hectares handed over to the State Governments for licensing to the cultivators, rates of rent were to be fixed

by the State Governments. The State Governments have not been making any payments to the Railway Administration and, therefore, efforts are being made to take back the Railway land so that the same can be profitably utilised by the Railway itself. The outstandings in recovery of rent due from outsiders and railway employees, as on 31st March 1981, amounted to Rs. 14.22 lakhs. The figures of the outstandings against the State Governments are not available.

Afforestation

Tree Plantation is an important national objective. The tree produces fuel, food-stuffs, fibres and building materials etc. Tree Plantation on the surplus railway land had been discussed by the Ministry of Railways (Railway Board) in a Conference held with the Chief Engineers of the Railways in May 1959. Thereafter, orders were issued to the Railway Administrations (July 1959) to hand over the surplus land along the railway track to the Forest Departments of the respective State Governments for plantation of trees. The Way and Works Staff of the Railways was also to be deployed for growing trees along the railway lines, in yards and in railway colonies etc. On South Central and Northeast Frontier Railways no land had been handed over to the Forest Department for plantation of trees till March 1981. On South Eastern Railway 9.32 lakhs of trees during the years 1980-81 and 1981-82 had been planted, out of which 6.30 lakhs of trees (68 per cent) survived. On Western Railway, surplus land to the extent of 15.2 acres had been handed over to the Forest Department during 1982-83. However, the number of trees planted had not been assessed by the Railway Administration so far. The North Eastern Railway Administration had expected (July 1978) an annual income of Rs. 7-10 crores to accrue from plantation of 15 to 20 lakhs of trees along its total route kilometrage of over 5,000 kms. uptil December 1982 about 17 lakhs of trees were stated to have been planted. However, no progressive details of the plantation done from year to year, and the income, if any, realised therefrom were furnished by the Railway Administration. 9208 acres of Northern Railway land along the railway track. was licensed to the Forest Departments of Punjab and Uttar Pradesh for afforestation, on moiety of profits, but there was loss amounting to Rs. 27.85 lakhs during the period from 1961 to 1979. Though the railway land had been handed over to the Foret Department of Uttar Pradesh in 1977, the final agreement between the

Northern Railway Administration and the Utter Pradesh Government has not been executed so far (September 1983). Directorate of Land Management in Railway Board has yet to compile data regarding areas covered and areas yet to be covered under the scheme, earnings and expenditure on such plantations etc. for the effective monitoring of the scheme.

To mitigate the risks involved in land exploitation by commercial uses, recourse to social forestry on large scale would appear to be a better medium. The Railways have nearly 2.74 lakhs of acres (1.14 lakhs of hectares) of surplus land which can be profitably utilised for growing trees like Subabool and eucalyptus which thrive not only in fertile lands of Punjab and Uttar Pradesh but also in arid regions of deserts of Rajasthan and Gujarat and which are quick yielding species not requiring much nursing. Such plantations would yield revenue and would check land erosion and stablise the embankments all through the length of Railway tracks.

According to an assessment of an expert, the yield from Subabool per hectare per year is 30 tonnes. At the rate of Rs. 300 per tonne of firewood, it would give an income of Rs. 9,000 per hectare per year. Plantation of eucalyptus trees is stated to have yielded an income of Rs. 25,000 in Delhi area and Rs. 35,000 in Gujarat per hectare per year. Computed on that basis, earning potential of well over Rs. 111 crores per year by utilising even half of the Railways' total surplus land holding remains untapped.

Pisciculture

The Ministry of Railways (Railway Board) laid down (1965, 1968 and 1981), procedure for licencing of railway tanks|borrow pits for pisciculture. According to this procedure, licences were to be given firstly to the Railwaymen's co-operative societies, secondly to the Fishermen's co-operative societies (on limited tender basis) and lastly to the outsiders (through public auction). Eastern, Northern and Northeast Frontier Railways had been licencing the railway tanks for pisciculture on a small scale while no action had been taken for development of pisciculture on Central, North Eastern, Southern, South Eastern and Western Railways. As such, revenue and production potential from this source remains to be harnessed.

Earnings

The Ministry of Railways (Railway Board) had assessed (June 1980) an additional revenue of Rs. 15 crores from items like licensing of land for shopping, commercial plots etc., during the year 1980-81. The expected earnings were Rs. 1 crore from each of North Eastern and Northeast Frontier Railways, Rs. 1.5 crores from each of Eastern, Southern and South Central Railways and about Rs. 2 crores from each of Northern, South Eastern and Western Railways. A review of the earnings actually realised, however, showed that on Northeast Frontier Railway, the earnings were only Rs. 6.51 lakhs (against Rs. 1 crore), while on South Central, Southern and Western Railways, the earnings were Rs. 18.95, Rs. 21.71 and Rs. 7.09 lakhs only (against Rs. 1.5 crores and 2 crores) respectively. The figures of earnings realised on other railways were not furnished by the respective Railway Administartions. It is obvious that the Railways' achievements during the year 1980-81 were far below the expectations despite administrative machinery having been set up for this purpose, in the offices of both the Ministry of Railways and the respective Railway Administrations.

IV. Non-Execution of Agreements

The rules provide that each licensee should execute an agreement for the plot licensed to him by the Railway Administration. However, it is noticed that in a number of cases agreements have not been executed between the licensees and the respective Railway Administrations. Railway-wise position is given below:—

Railway	No. of cases in which plots have been licensed	No. of cases in which agreements have been executed	No. of cases in which agreements have not been executed (As on 31st March 1982)
1	2	3	4
Central	2655	2288	367
Eastern	3026	1722	1304
Northern	9841	5275	4566
North Eastern	14817	4041	10776

1	2	3	4
Northeast Frontier	Not available		
Southern	6355	2301	4054
South Central	4532	4231	301
South Eastern	24316	10204	14112
Western	5842	1605	4237
C.L.W.	1731	1100	631
Total	73,115	32,767	40,348

In the absence of formal agreements, recovery of railway dues may not be legally enforceable.

Summing up

1. Non-maintenance of up-to-date land plans by the Railways, duly accepted by Revenue Authorities of the State Governments, led to disputes| litigations, damage to Railway's title of land and loss of revenue accruing therefrom.

2. Encroachments on railway land have been increasing from year to year. There was 40 per cent increase in encroachments at the end of March 1983, as compared to that at the end of March 1978.

3. Outstandings on account of rent of land|licence fees aggregated to Rs. 4.88 crores (March 1981 to March 1983). There were delays in revision of rents; retrospective revisions of rent without observing proper formalities led to disputes and litigations.

4. Afforestation of railway land and pisciculture in railway tanks have not been developed as an effective source of revenue by the respective Railway Administrations, as contemplated by the Ministry of Railways (Railway Board). Even by utilising half the surplus railway land for eucalyptus and Subabool plantations, earning potential of over Rs. 111 crores per annum could be tapped.

5. Against the estimated earnings of Rs. 15 crores from licensing of railway land for shopping, commercial plots etc., during the year 1980-81, the actual earnings were only Rs. 54.26 lakhs.

6. Out of 73,115 cases of land licensed (March 1982), in 40,348 cases (i.e. 55.18 per cent) formal agreements have not been executed with the parties to whom the land was licensed.

The absence of agreements is likely to impair Railways' title to legal enforcement of recovery of their dues.

7. The achievements of the Railways in management of railway land have been far below the expectations, despite new administrative machinery having been set up since June 1980 in the offices of both the Ministry of Railways and the respective Railway Administrations.

Ministry of Railways (Railway Board) stated (December 1983) that the existing expertise on the Railways was not adequate for proper land management.

20. *Central Railway—Licensing of land at Wadi Bunder to a firm*

Railway land measuring 9502 sq. metres adjacent to the Central Railway container terminal at Wadi Bunder had been licensed to the Ministry of Defence in 1944 for erection of temporary structures during the war. The Ministry of Defence released an area of 1010 sq. metres of land in June 1968. Thereafter, the issue of releasing the balance area of 8,492 sq. metres of land remained under correspondence between the Ministries of Railways and Defence. In August 1978 the Ministry of Defence suggested to the Ministry of Railways (Railway Board) to take over assets (cold storage plant) created on this land. The Ministry of Railways (Railway Board) insisted (October 1978) on relinquishment of the land free of all encumbrances, as it was required for Railway's own operational needs. This was reiterated by the Ministry of Railways (Railway Board) in December 1979 to the Ministry of Defence. Meanwhile, in March 1979, a firm approached the Ministry of Railways (Railway Board) for licensing of this land. The latter forwarded the application to Central Railway Administration and asked it to submit a Report indicating whether the Defence Department assets on the land were being purchased by the firm. The Ministry of Railways (Railway Board) also asked the Central Railway Administration to ensure that the Ministry of Defence, while disposing of their assets, did not allow this firm or any other party to get a foot-hold on the Railway land. The firm approached the Railway Administration (September 1979) to license the land in its favour, stating that the Ministry of Defence had agreed to hand-over the assets to it, if the licence agreement for the land was finalised by the Railway. The Railway Administration's approval to license the land was conveyed to the firm on 27th September 1979. The land was surrendered by the Defence Department to the Railway on 30th January 1980 and was handed over to the firm by the Railway on the same day (afternoon). The agreement was signed by the firm on 3rd March 1980.

Thus, railway land taken back from the Defence Department for meeting Railway's own operational needs, was ultimately licensed to a private party and the proposed transfer of goods handling operation from Carnac Bridge Goods Shed to Wadi Bunder had to be shelved.

The licence fee due from the party was fixed @ Rs. 5,10,000 per annum for the period from 31st January 1980 to 31st March 1980 (2 months) and @ Rs. 10,20,000 per annum for the period from 1st April 1980 to 31st December 1980 (9 months) and @ Rs. 11,22,000 and Rs. 12,24,000 for the years 1981 and 1982 respectively. The party's request (May 1980) for reduction in the licence fee on the ground that it had not been able to commission the cold storage machinery as high costs were involved in replacement of the parts, was rejected (July 1980) by the Railway Administration. The Ministry of Railways (Railway Board), on a representation from the party to the Railway Minister to the effect that they were being harassed, directed (July 1980) Central Railway Administration to maintain status quo (i.e. to recover the licence fee @ Rs. 5,10,000 per annum) till further orders. This directive was, however, subsequently withdrawn (March 1981).

The fixation of rent at a lower rate even for a short period of 2 months resulted in loss of Rs. 86 thousand to the Railway Administration. Besides, it provided a handle to the party to dispute the subsequent enhancement of rent after the expiry of two months.

The party deposited Rs. 1,27,500 in October 1979 towards security deposit (equivalent to 3 months rent) and another Rs. 1,27,500 towards rent for the quarter 31-1-1980 to 29-4-1980. A few other payments made by the party were not accepted by the Railway Administration as these were not according to the terms of the agreement. In May 1981 the Railway Administration issued notice to the party, terminating the agreement with effect from 31st August 1981 and asking it to vacate the premises. The party did not vacate premises (October 1983), but took recourse to litigation which is pending in the City Civil Court, Bombay. The amount of licence fees due as on 31st August 1981 (date of termination of agreement) worked out to Rs. 15.97 lakhs. Besides, damages for illegal occupation beyond 31st August, 1981 are also due from the party. The total licence fee due from he party from the date of occupation to end of October 1983 worked out to Rs. 42.16 lakhs. As against this, the party has so far paid an amount of Rs. 13.60 lakhs (inclusive of

Rs. 11.02 lakhs received through the court), leaving a balance of Rs. 28.56 lakhs still to be recovered (October 1983).

The following points deserve mention in this case :

(i) The land was required for the Railway's own use and the Ministry of Defence had been repeatedly asked to release it without encumbrances. Despite this in 1979 the Railway Administration|Railway Board decided to license it to a private party, without verifying its credentials fully.

(ii) The initial fixation of rent at a lower rate for the first two months provided a handle to the party to dispute subsequent enhancement.

(iii) Despite Railway Administration's notice of May 1981 terminating the agreement with effect from 31st August 1981, the Railway has not been able to regain possession of the premises so far (October 1983).

(iv) Acceptance of an unsolicited offer from a lone party (on single tender basis) was not in the interest of the Railway. There is need for evolving a better system of licensing of railway land, which should, inter-alia, ensure competitive offers from prospective bidders, say, through the medium of advertisement or auction, and also guard against non-payment by the licensee, say, by obtaining a bank guarantee.

CHAPTER X

FRAUDS AND LOSSES

31. South Central and South Eastern Railways—Delivery of consignments on forged railway receipts

To protect Railways against claims for non-delivery of goods arising from fraudulent diversion of wagons, rules provide that :

(i) The genuineness of railway receipt should be verified by comparison with invoice received from booking station. Invoice, if not received, should be called for from the booking station.

(ii) If, at the time of delivery of a consignment, the invoice was still not on hand, the delivery should be effected on the authority of consignee receipt, after verification of its genuineness and identity of the claimants.

(iii) Safe custody of Invoice (receipt) Books, when not in use, should be ensured. Loss of Railway receipt books or leaves therefrom should be reported immediately to all concerned.

(iv) In the yards details of wagons of all incoming trains should be carefully noted from seal cards, etc. in the inward Hand Books and cross checked with "guards wagon way bills (consists)" and Link Cards by Trains Clerks. Similar cross check of the wagon seal cards with the link cards should be done on outgoing trains and discrepancies reported telegraphically to all concerned.

The Railway Board had also issued instructions to all the Railway Administrations in 1970 and 1971 reiterating the above rules and procedures with special stress on fixation of staff responsibility for lapses|failures to observe the rules, etc.

A review in audit of a few compensation claims settled through Court (and in some cases settled out of Court) disclosed recur-

ring cases of fraudulent diversion of wagons resulting in payment of compensation amounting to Rs. 3.85 lakhs on South Eastern and Rs. 3.32 lakhs on South Central Railway.

The modus operandi generally adopted in such cases by the miscreants was to steal railway receipt books in use at goods booking offices and utilise these for preparing forged railway receipts, on the basis of which delivery of the wagons was obtained at a destination of their choice. The loaded wagons were diverted (and made unconnected) by changing the seal cards or labels or by furnishing wrong guidance either enroute or at the exchange yards. This was facilitated by lack of check, non-preparation of proper documents for handing|taking over the wagons at the exchange yards by the Railway Staff, in accordance with extant rules referred to above. The original consignees, preferred claims for non-delivery of goods against the concerned railway. The details of the cases are as under :

1. *South Eastern Railway*

During 1970-71, 1973-74, 1974-75 and 1977-78 wagons were booked on different dates from Bondamunda (one wagon), Tatanagar (3 wagons), Durgapur (one wagon) to different destinations (Shibpur, Jullundur City, Kanpur, Sion and Tatanagar) on the Northern, Central and South Eastern Railways by Steel Authority of India Limited (SAIL) and Tata Iron and Steel Company (TISCO). These were got diverted to Akola (Central Railway), Jaunpur (Northern Railway), Chaunrah (Central Railway), Ambernath (Central Railway) and Gomia (Eastern Railway) and taken delivery by production of forged railway receipts.

No responsibility of the staff at fault for the fraudulent diversions and issue of forged railway receipts was fixed by South Eastern Railway Administration in respect of 3 out of 5 cases. In respect of one wagon delivered at Chaunrah station on the Central Railway, the question of staff responsibility was not taken up at all by the South Eastern Railway Administration with the concerned Railway. In respect of another wagon delivered at Ambernath station on the Central Railway, the staff of Central Railway was punished by reduction of pay but no action was taken against the staff of South Eastern Railway who were responsible for the fraudulent diversion of wagon. Compensation amounting to Rs. 3.85 lakhs was paid in respect of five wagons referred to above.

The South Eastern Railway Administration stated (October 1983) that actual financial liability devolving on it was Rs. 1.15 lakhs and the remaining amount was debited to Central, Eastern and Northern Railways. It further stated that since all the five consignments were delivered on other Railways, the staff of South Eastern Railway was not responsible in the matter of delivery of these consignments on forged Railway receipts and that action against the staff found responsible for the lapses in exchange yards/inter-change points was under process.

2. *South Central Railway*

Seven wagons loaded with fertilisers, were booked during July to October 1978 from Vishakhapatnam Port station to different stations on South Eastern Railway (3 wagons), South Central Railway (3 wagons) and Central Railway (one wagon). All these wagons were diverted to two different destinations on the South Central Railway itself, namely, Anaparthi (5 wagons) and Dwarapudi (2 wagons) stations and delivered between August and November 1978 on forged railway receipts. Two wagons diverted to Dwarapudi were delivered at short interval (18th August 1978 and 8th September 1978) against forged railway receipts having one and the same invoice number. Subsequent investigations revealed that these forged railway receipts were from the leaves of an invoice book stated to have been missing since March 1972 from Vishakhapatnam Port station but notified as lost by that station only in December 1978 i.e. after the delivery of goods on forged receipts. As a result of claims lodged by the consignors for non-delivery of goods to their original consignees, the South Central Railway had paid compensation of Rs. 1.59 lakhs in 3 cases and South Eastern Railway had paid Rs. 1.73 lakhs in 3 cases. One claim for non-delivery of consignment on South Eastern Railway is yet to be settled.

The South Central Railway Administration stated (May and September 1983) that staff of Anaparthi and Dwarapudi stations responsible for effecting delivery on forged railway receipts, had been punished by reducing their pay or withholding of Death cum Retirement Gratuity (DCRG) etc. amounting in all to Rs. 23,000 and that action against the staff both at booking point and the exchange yard is to be taken by Port Trust Railway who were responsible for the loss of unused forms of Railway receipt books and misdespatch of wagons.

Similar cases of delivery of consignments on forged Railway receipts were also noticed on other Railways resulting in liability

of payment of compensation claims to the extent of Rs. 11.84 lakhs in 25 cases (Central—9 cases Rs. 3.52 lakhs, North Eastern—10 cases Rs. 4.91 lakhs, Northeast Frontier—1 case Rs. 0.21 lakh, Southern—4 cases Rs. 2.00 lakhs and Western Railway—1 case Rs. 1.20 lakhs).

The following points deserve mention in this case :

(i) Railway staff at the booking stations had failed to observe the prescribed procedure in regard to safe custody of invoice books and did not notify, immediately, its loss to all concerned so as to prevent its possible fraudulent use.

(ii) Commercial and Accounts Inspectors of stations had also failed to notice and report loss of railway receipt books. For this lapse, no staff responsibility has been fixed.

(iii) The fraudulent diversion/misdespatch of wagons could have been averted, had the prescribed check of the seal cards and tallying of wagon details with Guards. wagon way bills been done systematically by the staff in exchange yards.

(iv) The staff at destination on both these Railways failed to tally the consignments, verify the genuineness of forged railway receipts presented. The continuity in the receipt of such invoices was not checked. Reference required to be made to the booking stations in case of doubts, etc. were also omitted to be made.

(v) No responsibility has been fixed for the lapses of staff at the booking stations as well as at the exchange yards of Vishakhapatnam Port Trust Railway. South Eastern Railway is yet to finalise action against the staff found responsible for the lapses.

22. South Eastern and Central Railways—Misappropriation of cash and fraudulent payments

Local audit of the accounts and records of certain executive offices on South Eastern and Central Railways revealed cases of misappropriation of cash and fraudulent payments aggregating to about Rs. 8.41 lakhs, due to absence of suitable procedure and/or non-observance of the prescribed procedure for acountal of cash and preparation and internal check of bills, as mentioned below :

South Eastern Railway

(a) *Misappropriation of cash*

During an audit inspection (May-June 1979) of the office of Medical Superintendent, Adra cash remittance notes, except for February 1979, for cash collected from the retired railway employees and outsiders for their treatment in the railway hospital could not be produced for scrutiny. A reconciliation of the money receipts (February 1979) with their postings in the register of cash collection revealed cases of short accountal. Despite these being pointed out in December 1979 by audit and in subsequent Accounts inspection (March 1980) of the same office, the irregularities continued as noticed during further audit inspection in February 1982. A detailed review of the cash receipts and connected records disclosed short remittance of Rs. 1,35,117.01 out of the total collection of Rs. 2,02,701.84 during the period 31st October 1979 to 12th January 1982, besides non-maintenance of the prescribed cash book, stock register for money value books etc. and absence of any procedure for ensuring proper accountal and remittance of cash receipts.

On a reference again in April 1982, the South Eastern Railway Administration checked the records for the earlier periods and reported (October 1982) to the Railway Board misappropriation of Rs. 2,19,347.12 during 1st January 1977 to 12th January 1982. The amount was stated to be provisional as records relating to certain periods had been seized by the police.

The Railway Administration stated (November 1982 and April 1983) that a procedure order had since been issued (August 1982) for proper accountal and remittance of cash collections, the staff responsible for the loss had been dismissed (December 1982) and that a cash book was being maintained.

The outcome of the Departmental enquiry ordered (October 1982) for probing into the defalcation case and the investigation as to whether any procedural defect led to the loss is, however, still awaited (August 1983).

(b) *Fraudulent drawal of leave salary*

During an audit inspection (March 1982) of the office of Divisional Personnel Officer (DPO), Adra neither paid bills nor office copies of 38 leave encashment bills for Rs. 4.71 lakhs paid during April 1981—January 1982 as per Accounts records and confirmed by the concerned cash and pay office could be made available for audit.

On this being taken up (May 1982) in audit, the Divisional Accounts Officer (DAO) stated (October 1982) that the paid vouchers could not be supplied due to their non-availability caused by a suspected fraud. The modus-operandi of the fraud was to prepare and pass faked bills and to arrange removal of the paid vouchers after payments. The Accounts and Cash Office staff involved in the supected fraud and misappropriation of about Rs. 5.67 lakhs in respect of 46 faked bills detected till October 1982 had been discharged from service. As a remedial measure, procedure order had since been introduced (April 1982), envisaging certification of leave by the Accounts Office and recording of payments in the employee's provident fund ledgers, service books and leave accounts, etc. to provide adequate safeguard against incorrect, double or fraudulent drawal of such claims.

The absence of any procedure for preparation and internal check of leave encashment bills with adequate inbuilt safeguard over a period of about 5 years since the introduction (November 1977) of the benefit, would appear to have facilitated misappropriation of Rs. 5.67 lakhs through faked bills. While the staff involved in the preparation and passing of faked bills have been discharged, no responsibility has been fixed on the gazetted officers who authorised payment on these bills.

Central Railway

Fraudulent payments of overtime

During audit inspection (January 1981) of Bhusaval Loco shed a comparison of the sanctioned Overtime Allowance (OTA) statements with the relevant pay sheets revealed cases of overtime payments to certain staff not included in the OTA statements and in excess of the amounts due to some other staff, involving an over payment of about Rs. 18011 during May—October 1980. On these being pointed out (January 1981) by audit, the concerned DAO stated (January 1981) that prima-facie a fraudulent practice had been going on and the mater was being referred to vigilance for a detailed enquiry.

The vigilance investigation (March 1981 and January 1982) disclosed that the amount of OTA was being entered arbitrarily in the Time Bundles by the Loco Shed staff and the same was copied by the Personnel Branch staff in the final pay bills without any check. Further, no check was exercised in the DPO office while putting up the OTA statements for sanction; nor did the Accounts Office verify the correctness of the amount of OTA

during internal check of the pay bills. According to the vigilance enquiry, the fraud had been going on over the years resulting in fictitious papyments of several lakhs of rupees, though not susceptible of exact quantification in absence of old records. Based on the available records relating to the period August 1978 to October 1980, the total fraudulent payments had been assessed at Rs. 55,000.

The disciplinary action stated (October 1982) to have been initiated against the staff of the Loco Shed, Personnel Branch and Accounts Office for their failures to exercise the required checks is yet to be finalised (September 1983).

NEW DELHI
Dated the 1984
1905

(B. MAITHREYAN)
Deputy Comptroller and Auditor General of India & Additional Deputy Comptroller and Auditor General of India (Railways)

Countersigned

NEW DELHI
Dated the 1984
1905

(GIAN PRAKASH)
Comptroller and Auditor General of India

ANNEXURE—I

(cf. Paragraph 1.8)

Sl. No.	Name of commodities	1977-78			1978-79		
		Amt. of compensation Rs. in crores	Traffic earning Rs. in lakhs	Percentage	Amt. of compensation Rs. in crores	Traffic earning Rs. in lakhs	Percentage
1.	Parcel	6.74	5264	12.75	2.78	53.37	5.2
2.	Tea	4.3	255	16.9	.31	247	12.5
3.	Leather goods	.10	292	3.5	*	28	*
4.	Jute	.14	455	2	*	643	*
5.	Oil seeds	.54	925	6	.52	939	5.5
6.	Edible oil	.33	1052	3.2	36.	811	4.4
7.	Spices	.27	142	16.6	23.	162	14.2
8.	Piece goods	.65	392	19.2	.48	302	15.9
9.	Medicines	.5	34	14.2	*	31	*
10.	Motor Car, Tractor parts	.11	11	9.4	*	9	*

*Figures not yet available.

1979-80			1980-81			1981-82		
Amt. of compensation Rs. in crores	Traffic earning Rs. in lakhs	Percentage	Rs. in crores Amt. of compensation Rs. in crores	Traffic earning	Percentage	Amt. of compensation Rs. in crores	Traffic earning Rs. in lakhs	Percentage
1.24	5722	2.1	3.81	63.39	6.0	2.33	7418	3.4
.19	269	7.1	.15	349	*	.13	26	5.9
*	28	*	*	29.00	*	.15	37	41
*	1026	*	*	607	*	.19	485	4
.38	1134	3.4	.45	1011	4.5	.82	1308	6.3
.23	888	2.6	.33	986	3.3	.44	1325	3.3
.20	212	9.4	.19	272		.21	293	7.1
.36	309	11.7	.40	370.05	10.8	.44	350	12.5
*	27	*	*	22	*	.5	28	18
*	14	*	*	15	*	.10	14	69.5

ANNEXURE — II

(cf. Paragraph 1.11)

Details of claims accepted commodity-wise

SL. No.	Name of commodity	Number of claims		Value of claims settled in 1981-82 (Rs. in lakhs)	Two main causes in serial order (1981-82) (No. of cases in bracket)	
		1977-78	1981-82			
1	2	3	4	5	6	
1.	Grains and Pulses	35,374	33,734	428.62	1. Total loss/ Pilferage(18013)	2. Damage by Wet (13995)
2.	Oil seed	4,587	3,997	82.22	1. Total Loss/ Pilferage (3043)	2. Damage by Wet (900)
3.	Fresh Fruits & Vegetables . . .	20,340	34,398	130.78	1. Total Loss/ Pilferage (30116)	2. Delay in transit (3306)
4.	Other perishables	20,703	37,156	186.83	1. Total Loss/ Pilferage (26973)	2. Delay in transit (8448)
5.	Edible Oils	2,766	2,764	43.77	1. Loss/Pilferage (1375)	2. Leakage (1338)
6.	Coal and Coke . . .	5,062	7,113	384.13	1. Total Loss (6551)	2. Partial Shortage (550)

1	2	3	4	5	6
7.	Tea	4,180	1,278	13.43	1. Loss/Pilferage (986) 2. Damage by Wet (341)
8.	Spices	3,606	2,033	20.90	1. Loss/Pilferage (1418) 2. Damage by wet (570)
9.	Sugar	6,409	3,824	64.30	1. Loss/Pilferage (3155) 2. Damage by Wet (558)
10.	Piece Goods	5,528	3,179	43.99	1. Loss/Pilferage (2611) 2. Damage by Wet (379)
11.	Iron Steel :				
	(i) Steel Plants	587	299	25.77	1. Loss/Pilferage 2. Breakage
	(ii) Other than steel Plants	1,844	1,045	41.53	(2009) (49)
12.	Chemical manure	5,305	2,877	35.09	1. Loss/Pilferage (2403) 2. Damage by Wet (411)
13.	Cement	10,468	2,026	33.56	1. Damage by Wet (1177) 2. Loss/Pilferage (809)
14.	POL	1,951	1,017	30.53	1. Leakage (676) 2. Loss/Pilferage (308)
15.	Motor car parts	799	568	9.72	1. Loss/Pilferage (173) 2. Unlocated causes
16.	Paper	4,104	8,234	11.20	1. Loss/Pilferage 2. Unlocated causes
17.	Jute	1,675	1,540	18.48	1. Damage by Wet (1009) 2. Unlocated causes
18.	Timber	279	227	4.01	1. Loss/Pilferage 2. Unlocated causes
19.	Leather goods	2,850	3,511	15.19	1. Loss/Pilferage 2. Unlocated causes

1	2	3	4	5	6	
20.	Jaggery	1,088	597	6.78	1. Loss/Pilferage	2. Damage by Wet
21.	Matches	684	384	5.82	1. Total loss and Pilferage	2. Damage by Wet.
22.	Electrical Goods	958	692	9.21	1. Total loss and Pilferage	2. Breakage.
23.	Tobacco Mfd.	388	384	3.68	1. Total Loss/and Pilferage	2. Other unlocated causes.
24.	Rubber Mfd. (Auto Tyres & Tubes) .	Not separately available				
	TOTAL :	1,88,549	2,02,922	1,990.00		

ANNEXURE—III

[cf. Paragraph 1.15 (a)]

Details of cases where unconnected consignments were auctioned at much lower price than its value and amount of compensation paid

Sl. No.	Case/Sanction	Name of commodity	Cost of material	Auction value	Amount of compensation paid	Remarks
1	2	3	4	5	6	7
	South Eastern Railway					
1.	C/9A/1/007562 dated 18-8-1980 M/s. SAIL	Billets	81,449	48,205	98,583	Consignment found unconnected auctioned on Northern Railway
2.	C/9A/1/3825 dated 1-5-1979	M.S. Angles	53,306	21,954	65,491	Consignment found unconnected and used departmentally by Southern Railway.
	Southern Railway					
1.	*	Di-Ammonium Phosphate	*	29,700	*	*

*Details of compensation paid not available so far.

ANNEXURE IV

[cf. Paragraph 1.15(c)]

List of cases of payment of compensation due to delay in transit resulting from over carriage in parcel traffic

1. Eastern Railway.—Over-carriage and re-booking of fish consignments

Fish consignments are regularly booked from Delhi, Lucknow, Allahabad, Etawah stations on Northern Railway and Agra Cantt. Gwalior and Itarsi stations on Central Railway to different destination stations such as Asansol, Dhanbad and Patna on the Eastern Railway. These consignments were frequently overcarried to Howrah station and then re-booked to the correct destinations. As fish is highly perishable commodity, the consignees refused to take delivery on the ground that it had become rotten as a result of time lost in haulage and detention at enroute stations. Thereupon these consignments were jointly examined by railways and the consignees and finally destroyed, the railways having paid compensation for their non-delivery. Test checks by audit showed that during 1978-79 claims preferred on Eastern Railway for such over-carried damaged fish consignments were 50,158 kgs. valued at Rs. 4.01 lakhs.

In June, 1978 and June, 1979 the Railway Board issued detailed guidelines on remedial measures to prevent over-carriage of these consignments. However, a further review conducted by Audit in August, 1982 disclosed that similar over-carriage of fish consignments and consequent delay in delivery and deterioration thereof recurred and during 1981-82 about 37,858 kg. of fish were destroyed at Asansol and Patna Jn. for which compensation for Rs. 0.22 lakh was paid by Eastern Railway.

The Eastern Railway Administration stated (November, 1981) that over-carriage was mainly due to heavy indiscriminate loading at booking stations on the Northern Railway over which they had no control though the requisite Damage and Deficiency (DD) messages were sent to the stations concerned. The trains with fish consignments in parcel vans could not be detained at the

enroute unloading stations on its Railway beyond scheduled time for tracing and unloading of the same.

II. Southern Railway

(a) Parcels of froglegs for export are regularly received at Madras Central from Hazrat Nizamuddin station on Northern Railway. These items would last only for two or three days inspite of their being packed with ice in baskets. These consignments were either unloaded at intermediate points like Vijayawada or overcarried to Mangalore and then received back at Madras Central after considerable transit delay rendering the consignments unfit for human consumption and had to be destroyed. In May 1981, one major consignment of froglegs was booked from Madras Central to Cochin Harbour Station but the parcel van containing this consignment was detained enroute at Shoranur Junction and consequently this consignment had to be buried in a decayed condition at Shoranur itself. Claims preferred on the Southern Railway in respect of such destroyed consignments at Madras Central and Shoranur were for Rs. 1.94 lakhs in 1981-82.

(b) *Mango consignments*

There is considerable seasonal traffic in mangoes during March to May, every year, from stations in Calicut-Shoranur section to Delhi and Nizamuddin stations of Northern Railway. One parcel van was nominated for this and its major portion was allotted to Calicut and the balance to other adjacent stations in this section. During the season for 1981-82, 31 consignments (1637 baskets) booked from Calicut were found damaged due to haphazard loading and the total amount of claims involved in these cases was assessed at Rs. 0.90 lakhs.

III. South Central Railway.—Overcarriage of consignment of chicks

A parcel of 14 cardboard boxes of a day old chicks were booked from Erode to Nellore on 24th October 1980 and loaded in the brake van of train No. 131, Jayanti Janta Express on the same day. The brake van was wrongly sealed to Itarsi after the train had left Erode. Hence this item was not unloaded at Nellore on 25.10.1980 despite the fact that a representative of the sender had travelled in the same train and got down at Nellore and brought to the notice of the Guard as well as parcel clerk on duty at Nellore on 25.10.1980, that the parcel was to be unloaded

from the van sealed to Itarsi. The parcel was overcarried to Itarsi and from there, it was rebooked to Nellore. By the time it reached Nellore (28.10.1980), all the chicks had perished. The party lodged a claim for Rs. 1.70 lakhs on account of damage to the consignments with the South Central Railway which was settled for Rs. 24,630.

IV. South Eastern Railway—Non-observance of rules and procedure in Parcel traffic

An analysis for a period of 7 days in March and May 1982 at Howrah Parcel shed of the perishable items of traffic like fish, eggs, fruits, etc. booked from Southern and South Central Railway stations, carried out by South Eastern Railway revealed the following :—

(a) *At loading point (Vijayawada)*

(i) Loading at Vijayawada goes on till the last moment indiscriminately.

(ii) Some times Railway receipts (RRs) are issued after loading.

(iii) Parcel vans, luggage vans, etc. were over loaded.

(iv) Packages do not bear the railway or private marks.

(v) No summary is provided.

These irregularities result in short loading, excess loading, loading without particulars or even without booking.

(b) *At unloading point (Howrah)*

Packages received at Howrah sometimes with memo and some times without any memo. At Howrah, the number of clerks attending trains is inadequate to cope with the work load and to exercise effective supervision over unloading which is generally done by the consignees' labour. Due to the inadequacy of platforms, neither the rake could be detained for sufficient time for systematic unloading nor they can be kept on the platform for proper counting and connecting with the memo|RRs|PWBs for effecting delivery. Due to these constraints, unloadings of the consignments is dependent on the consignees' labour, over which proper supervision is not possible not only because of inadequacy of number of staff but also because of shortage of time and also because they being

private labour, the Railway official do not have sufficient control over them. The delivery is effected on memo or in some cases when memos are not available, delivery is effected on the basis of private marks of the consignors. This leaves a big margin for malpractices and subsequent claims. At Howrah, there was no effective checks on the number of packages loaded in various vehicles (lorries, tempos, etc.) passing out of the railway parcel shed. Gate passes were not properly prepared. This results in taking out of the railway premises more packages than what have been shown in the gate passes giving rise to a number of claims.

ANNEXURE V

(cf. Paragraph 3.15)

1. Discrepancies in stores accounts

The periodical accounts stock verification disclosed the following shortage/excess in the stores depots of the project:—

Year	Shortage	Excess
	Rs.	Rs.
1979-80	1,17,669	1,41,105
1980-81	1,96,000	90,220
	3,13,669	2,31,325

These discrepancies have not been settled to far (July 1983).

2. Shortage of stores in respect of inter-depot transfer

A quantity of 119.640 tonnes of steel was transferred from stores depot at Bhadrachalam to certain construction works at Mancherial and Vijayawada during November 1979 to January 1980. The consignees at Mancherial and Vijayawada reported shortages in the receipt of steel to the extent of 5.117 tonnes valued at Rs. 12,280. The shortages have not been investigated so far (July 1983).

3. Missing rails

The Railway Administration issued orders (November 1978) for transfer of 2.070 tonnes of II class 90 R rails released from Vijayawada—Gudur section to this project. The cost of these rails was booked to the project in 1978-79 without effecting physical transfer. The concerned permanent way Inspector reported in June 1979 that due to cyclone in May 1979 some of these rails were missing. After taking ground inventory in

March 1980, the loss was assessed at 64 tonnes of rail costing Rs. 65,664.

4. Non|short receipt of materials

A number of consignments (value : Rs. 2.48 lakhs) consisting of cement (value : Rs. 0.09 lakh), CST 9 plates (value : Rs. 1.14 lakhs), and rails (value : Rs. 1.25 lakhs) booked to this project were not received/short received at the site of the project. Though the cost of these materials is already charged to the Project, the claims of the Project against the Commercial Department of the Railway, dating back to May 1981 onwards, have not been settled so far (July 1983).

ANNEXURE VI

(cf. Paragraph 4.14)

Consequent on Railway Board's decision to reduce scope of project of electrification of Ring Railway and its spurs many items of stores, such as Cables, Steel, AC Sheets, Ballast etc. procured according to the requirement of original project estimate of 1980 were rendered surplus and certain Engineering Works already carried out became infructuous :

1. Cables

Screened signalling cables for 393 km. required for signalling and tele-communication works (which represented 80 per cent of the requirement) were indented by the Project authorities in December 1980 and May 1981 on Ministry of Railways (Railway Board). The actual quantity received at site was 551 km. of cables. As a result of curtailment of certain items of signalling works in August-October 1981 about 245 km. of cables valued at Rs. 1.5 crores were declared surplus to requirements. Of this, 188 km. of cables were dispatched to various Railways and the balance quantity was retained for the project. An infructuous expenditure of Rs. 1.47 lakhs on freight had also been incurred on the dispatch of the surplus cables to other consignees.

2. Ballast

Tender for supply and stacking of 30,000 cums. 50 mm. gauge and 4,000 cum of 25mm gauge stone ballast for Shakurbasti Yard etc. were finalised in April 1981 and quantities of 20,260 cum of 50 mm gauge and 4,000 cum of 25 mm gauge ballast were obtained for the project between July 1981 and February 1982. As a result of deletion of the Civil Engineering Works between Rampura cabin and Shakurbasti Yard, the above procurement proved excessive (5609.08 cum of 50 mm and 2871.31 cum of 25 mm stone ballast costing Rs. 7.60 lakhs). The Project Administration proposed to transfer this ballast to Northern Railway, who, however, did not have urgent requirements of ballast in Delhi area.

3. Steel

In October 1980, MTP placed an indent for 3235 tonnes of rounds and Tor steel required for various sections without vetting by Associate Finance on the Steel Authority of India (SAIL). Bulk of this steel was to be imported on 'back to back' basis i.e. the full cost of the import being met by the Indentor with delivery being taken on high seas. Subsequently, due to reduction in the scope of the work and reassessment of requirements, SAIL were advised (February 1981) that only 535 tonnes plain rounds and Tor steel were required against 3,235 tonnes originally indented. However, import of 1135 tonnes Tor steel had already been committed in December 1980 by SAIL. Therefore, 315 tonnes and 705 tonnes were diverted to New Delhi Municipal Corporation (NDMC) and Delhi Development Authority (DDA) respectively and the balance quantity of 17 tonnes Tor steel 18 mm was taken over by the MTP.

However, out of the money advanced to SAIL for the above import, a sum of Rs. 4.87 lakhs was still due to be refunded (April 1983). In addition, from similar advances for purchases of steel from domestic market made to SAIL and Tata Iron and Steel Co. (TISCO), refund of Rs. 5.80 and 2.35 lakhs respectively is still due (October 1983).

4. Avoidable extra expenditure in the provision of high level platforms

Raising of existing rail level platform to high level platform is an essential passenger amenity to be ready prior to running of EMU services. Mention was made in para 7 of the Report of the Comptroller and Auditor General—Union Government (Railways), 1981-82, regarding incurrence of infructuous expenditure of Rs. 3.77 lakhs due to dismantlement of two high level platforms constructed at unsuitable location at the Minto Bridge station by the Northern Railway without waiting for the final lay out and site for the same from the Metropolitan Project authorities. There is yet another case of dismantlement of high level platform built at wrong site at the adjacent station, Tilak Bridge, on the Ring Railway, constructed by Northern Railway at a cost of Rs. 3.45 lakhs without waiting for the final lay out from the MTP. On the other hand, provision of such high level platforms at many stations (4) on the electrified corridors to Tughlakabad Shakurbasti Ghaziabad were deleted by reducing the scope of the project in August 1981.

5. Dismantlement of Gang huts, procurement of surplus AC Sheets, etc.

Again, due to deletion of Civil Engineering items of work beyond Rampura Cabin (towards Shakurbasti) in October 1981, new assets already created such as, gang huts etc. (cost Rs. 2.35 lakhs) became redundant, and stores; such as, AC Sheets of various sizes (cost Rs. 2.55 lakhs) procured by the Project for coverage of platforms, etc. became surplus and had to be disposed off by transfers.

ANNEXURE VII

(cf. Paragraph 5.V)

Statement of instances showing delay in placement of order by Railways

Sl. No.	Name of Railway	Target Date	Actual date of despatch of order	Period of delay
1.	Western	15-2-79	17-3-79 20-3-79	30 Days
		23-3-81	2-6-81	71 Days
		23-3-82	16-4-82	24 Days
2.	North Eastern	23-3-82	20-4-82	28 Days
3.	South Central			1 Month or less
4.	South Eastern	23-3-81	1-5-81	39 Days
		23-3-81	16-4-81	24 Days
		23-3-82	19-4-82	27 Days
		25-5-83	22-6-83	28 Days

ANNEXURE VIII

(cf. Paragraph 5. VI)

Traffic block for Track Relaying Equipment (PQRS)

Railways	Year	Days worked	Total Blocks		Average traffic block per day
			Hrs.	Mts.	Hrs. Mts
Central . .	1980	120	242	55	2.01
	1979	123	294	10	2.23
	1978	112	217	10	1.56
	1977	103	224	24	2.11
Eastern . .	1980	193	331	54	1.42
	1979	55	97	35	1.46
	1978	97	160	27	1.39
	1977	66	114	25	1.44
Northern . .	1980	104	149	10	1.27
	1979	104	173	45	1.40
	1978	55	59	25	1.48
	1977	81	135	50	1.41
Southern . .	1980	233	397	35	1.42
	1979	87	119	15	1.22
	1978	197	397	47	2.12
	1977	202	498	35	2.28
South Central .	1980	338	263	00	0.46
	1979	281	120	25	0.43
	1978	273	211	15	0.45
	1977	192	149	15	0.46
Western . .	1980	211	216	35	1.01
	1979	129	173	00	1.20
	1978	100	90	52	0.54

ANNEXURE IX(i)

(cf. Paragraph 5. VII)

Instances of delays in execution of Track Renewal Works

(Position as in Dec. 1982)

Sl. No.	Railway	Particulars of works	Estimated cost (Rs. in lakhs)	Year of sanction/ commencement	Physical progress
2		3	4	5	6
1.	North Eastern Railway	(A) **Complete Track Renewal (Primary)**			
		Dudwa-Tikunia (36.00 kms)	1.62	1975-76	89%
		Nanpara-Mihinpurwa (24.14 kms)	1.21	1976-77	Nil
		Mihinpurwa-Murtiha (20.00 kms)	0.60	1977-78	Nil
		Guinani-Sohratgarh (44.00 kms)	1.60	1978-79	Nil
		Sitamarhi-Kundwa (39.00 kms)	2.03	1976-77	60%
		Bhairoganj-Bagaha (18.00 kms)	0.51	1976-77	Nil
		(B) **Complete Track Renewal (Secondary)**			
		Bahraich-Nanpara (35.00 kms)	1.35	1973-74	Nil
		Murthia-Bichhia (35.00 kms)	0.70	1979-80	Nil
		Siwan-Thawe Jn. (21.17 kms)	0.50	1972-73	48%
		Kamtaul-Sitamarhi (45.00 kms)	1.19	1972-73	66%

	3	4	5	6
2. Southern Railway	Dindigul-Pollachi Section (26.2. kms)	55.00	1974-75	Nil
	Virudhunagar-Shencottai Section (22.33kms)	43.19	1976-77 1971-72	50%
	Villupuram-Katpadi Section(21.80 kms)	43.30	1979-80 Nov. 1973	Completed in 1982-83
	Villupuram-Tiruchirapalli Section (Chord) 14.50 kms)	57.40	1980-81 Dec. 1977	Completed in
	Bangalore City-Arsikere Section (18 10 kms)	35.39	1978-79 May 1971	December 1982 44%
	Bangalore-Arsikere Section (2.66 kms.)	47.35	1980-81 May 1972	Completed in 1982-83
			1978-79	
3. Central Railway	CTR 25 kms between Banapura and Itarsi stations	—	March 1975	Completed in September 1982
	CTR (20 kms) between Khandwa and Khar station		August 1975	
	CTR (25 kms) between Bina-Bhopal section	—	November 1978	Completed in December 1982

*Due date of completion as per estimate.

ANNEXURE IX (ii)

(cf. Paragraph 5.VII)

Statement showing No. of works programmed but not completed on Central Railway.

Year	Total No. of Works programmed	No. of Works pertaining to the year but not completed till the end of 1980-81
1974-75	56	3
1975-76	16	2
1976-77	32	6
1977-78	42	15
1978-79	35	21
1979-80	24	23
	205	70

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ANNEXURE X

(cf. Paragraph 6.I)

Statement showing number of distressed bridges rehabilitated during the period from 1978-79 *to* 1981-82 *and the arrears in rehabilitation as on* 31-3-1982

Sl. No.	Railway	No. of bridges requiring to be rehabilitated as on 31-3-1978	No. of bridges rehabilitated during 1978-79 to 1981-82	No. of bridges remaining to be rehabilitated as on 31-3-1982
1	2	3	4	5
1.	Central	276	NA	276
2.	Eastern	261	NA	261
3.	Northern	170	NA	170
4.	North Eastern	921	104	817
5.	Northeast Frontier	833	35	798
6.	Southern	194	38	156
7.	South Central	387	106	281
8.	South Eastern	357	171	186
9.	Western	154	42	112
		3553	496	3057

ANNEXURE—XI

(cf. Paragraph 6.V)

Statement showing average monthly outturn of Bridge girders vis-a-vis installed capacity in various Bridge Workshops

Sl. No.	Name of Railway	Name of the Bridge workshop	Installed capacity per month (tonnes)	Production of fabricated girders during various years per month				
				1977-78 tonnes	1978-79 tonnes	1979-80 tonnes	1980-81 tonnes	1981-82 tonnes
1	2	3	4	5	6	7	8	9
1.	Central	Manmad	200	217.83	198.5	212.5	185.96	172.31
2.	Eastern	Mughalsarai	200 (including other structurals)	103	100	109	110	86
3.	Northern	Jalandhar Cantt.	240 (including other structurals)	86.51	97.97	77.21	63.51	29.23
		Lucknow	180 (including other structurals)	35.27	15.48	15.17	12.41	6.29

1	2	3	4	5	6	7	8	9
4.	North Eastern	Gorakhpur	125	57.23	91.71	83	74.84	54.85
5.	Northeast Frontier	Bongaigaon	80	18.20	34.25	47.62	67.99	106.52
6.	Southern	Arakkonam		—Not available—				
7.	South Central	Lallaguda (Secunderabad)	40	33.13	44.30	41.35	46.15	30.51
8.	South Eastern	Sini	30	20.7	20.4	7.7	6.9	22.2
9.	Western	Sabarmati	166.6	200.9	210.7	224.3	221.4	227.1

ANNEXURE—XII

(cf. Paragraph 7.VI-2)

Year	Number of heats in a year		Shortfall		No. of power interruptions	Duration (hours)
	Maximum available	Actually obtained	No. of Heats	in equivalent hours		
1	2	3	4	5	6	7
	4 ton furnace					
1979-80	810	447	363	1996	1048	1152
1980-81	810	406	404	2222	1085	1006
1981-82	810	315	495	2722	940	379
	2430	1168	1262	6940	3073	2537
	1/2 ton furnace					
1978-79	810	137	673	3701	1401	1169
1979-80	810	79	731	4020	1522	1405
1980-81	810	154	656	3608	1378	572
	2430	370	2060	11329	4301	3146

Note : Duration of heat 4 to 4-1/2 hours for 4 ton furnace and 3-1/2 hours for 1/2 ton furnace—Preparatory time 1 to 1-1/2 hours.

Maximum No. of heats computed by taking 3 heats in 5-1/2 hours duration per day for 270 days in a year for both the furnaces.

ANNEXURE—XIII

(cf. Paragraph 8)

Statement showing consumption of electrodes with production

Year	Outturn		Actual consumption		No. of heats	Average consumption of Electrodes		
	Metal Melt (in tonnes)	Castings (in tonnes)	Electrodes (tonnes)	Power (KWH)		per tonne of Metal Melt (kgs)	per tonne of Castings (kgs)	Per lakh KWH of power consumed (in tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1968-69	21931	8777	115.658	149.612	2512	5.28	13.18	0.773
1969-70	16895	6815	115.733	119.364	1963	6.85	16.98	1.003
1970-71	16220	6668	111.203	107.385	1910	6.86	16.68	1.035
1971-72	15064	6098	128.798	99.899	1748	8.55	21.12	1.289
1972-73	13330	5060	114.790	99.574	1559	8.61	22.69	1.153
1973-74	9057	3652	98.759	71.498	1089	10.90	27.04	1.381
1974-75	9884	3910	98.290	74.368	1168	10.02	25.32	1.331
1975-76	13742	5461	111.324	94.816	1611	8.10	20.39	1.174
1976-77	14860	5835	107.860	86.615	1729	7.26	18.49	1.245
1977-78	14068	5471	117.684	88.906	1595	8.37	21.51	1.324
1978-79	12908	5021	115.920	83.955	1463	8.98	23.09	1.381
1979-80	12258	4647	116.625	83.451	NA	9.51	25.10	1.397
1980-81	12160	4626	119.265	81.855	1418	9.80	25.78	1.457
1981-82	10049	3620	103.021	65.440	1161	10.25	28.49	1.574
1982-83 (February 1983)	9686	3764	97.422	65.821	1231	10.05	25.88	1.480
Total for 1969-70 to 1982-83			1556.694					

Requirements of Electrodes			Excess consumption in tonnes with reference to		
@5.28 kgs./* tonne of melt	@ 12.5 kgs./* tonne of castings	@ 773 kgs./* lakh KWH of power consumed	Metal Melt	Castings	Power
(10)	(11)	(12)	(13)	(14)	(15)
115.658	109.710	115.658	—	5.948	—
89.206	85.190	89.176	26.527	30.543	26.557
85.642	83.350	85.009	25.561	27.853	28.194
79.538	76.230	77.222	49.260	52.568	51.576
70.382	63.250	76.971	44.408	51.540	37.819
47.820	45.650	55.268	50.939	53.109	43.491
52.188	48.880	57.486	46.102	49.410	41.504
72.558	68.260	73.293	38.766	43.064	38.031
78.461	72.940	66.953	29.399	34.920	40.907
74.279	68.390	68.724	43.405	49.294	48.960
68.154	62.760	64.905	47.766	53.160	51.015
64.722	58.088	64.507	51.903	58.537	52.118
64.205	57.825	63.273	55.060	61.440	55.992
53.059	45.250	50.585	49.962	57.771	52.436
51.142	47.050	50.879	46.280	50.372	46.543
951.356	883.113		605.338	673.581	615.143
Less breakages/scrap @6.785 tonnes per annum based on the actuals for 1975-76 to 1978-79			94.990	94.990	94.990
Net excess consumption			510.348	578.591	520.153

*Average consumption during 1968-69

ANNEXURE—XIV

(cf. Paragraph 13.11)

1. Northern & South Eastern Railways—S.L.M. Water ring pump

The equipments purchased by Northern Railway in 1971 at a cost of Rs. 0.87 lakh and by South Eastern Railway in 1969 at a cost of Rs. 0.63 lakh for cleaning electrical equipments of electric locomotives have been lying unused as they were found unsuitable for the purpose.

2. Northern Railway—Wheel lathe

A wheel lathe received from Chittaranjan Locomotive Works (CLW) after reconditioning (at an estimated cost of Rs. 1.5 lakhs) in June, 1976 was commissioned in Kanpur Loco shed in January 1980 only i.e. after a delay of 3-1/2 years. Even after commissioning, during the period January 1980 to March 1982, the lathe remained under repair for a period of 14 months.

3. Northern Railway—100 tonne weighbridges

Two weighbridges costing Rs. 1.15 lakhs each received in 1965 and 1966 at Varanasi remained unutilised for over three years and were transferred to Shakurbasti. One of the weighbridges was installed in Shakurbasti in 1970 and the other transferred to Jalandhar Cantt. in October 1973 where it was installed in April 1979 after spending Rs. 0.58 lakh on deficient parts. The weighbridge was, however, lying unused up to May 1982.

4. Northern Railway—Automatic weighbridge

A 50 tonne weighbridge purchased at a cost of Rs. 0.61 lakh in 1966 for Jagadhri Workshop has remained idle for the last 17 years as it was defective and supplier could not rectify the defects. The Administration pursued the matter with the supplier and the Director General, Supplies and Disposals (DGS&D) from 1968 to 1982 without avail.

5. North Eastern Railway—Dial type weighing machines

14 dial type weighing machines costing Rs. 48,667 supplied by a firm of Howrah in May 1971 for installation at the Transhipment point, Garhara were returned back by the Assistant Traffic Superintendent, Garhara to District Controller of Stores Samastipur in February an dJuly, 1974, as these found damaged and unserviceable. The machines were ultimately sold as scrap at a cost of only Rs. 1855 in September 1975.

ANNEXURE—XV

[cf. Paragraph 15.1 (ii)]

(Southern Railway—Doubling of track along Palghat—Alwaye section)

I. Wadakancheri—Mulagunnathukavu sub-section—Earthwork in Reach-I

The contract (value: Rs. 22.91 lakhs) was awarded in March 1978 to contractor 'D'. The work was commenced in May 1978, and was due to be completed in 18 months by November 1979. However, the work was not completed by the scheduled date due to delay in land acquisition and non-removal of obstructions by the Administration, heavy monsoon rains, scarcity of blasting materials and labour. Also, there were large variations in quantities of work to be done. Extensions were granted upto 31st March, 1981. Despite decision (September 1980) to off load the work of "hard rock cutting" (8000 cu. m.) to departmental agency, the progress of the work was not satisfactory, and hence the Administration terminated the contract at the risk and cost of contractor 'D'. The value of the work left over was Rs. 9.85 lakhs. In December 1981, the Administration entered into an agreement with Contractor 'E' for execution of the balance work (value : Rs. 9.85 lakhs) at a cost of Rs. 31.25 lakhs involving an extra expenditure of Rs. 21.40 lakhs. Out of the 8000 cu.m. of cutting in hard rock proposed to be done departmentally 5,000 cu.m. were entrusted to Contractor 'E' involving further additional expenditure of Rs. 2.78 lakhs. The work was to be completed by November 1979, but had not been completed even by April 1983, resulting in delay of over 3 years. Contractor 'D' has not made any payment on account of risk cost so far (June 1983).

II. Trichur-Ollur sub-section—Earthwork in Reach-I

An agreement was executed with Contractor 'F' in July 1978 for execution of this work at a cost of Rs. 13.82 lakhs. The work was to be completed in 18 months by January 1980. As the work could not be completed during the stipulated period due to non-acquisition of land, delay in supply of bridge plans/

working sections, changes in the alignment and non-removal of obstructions by the Railway Administration, extensions were granted upto October 1981. In May 1981 the Administration decided to off-load work valued at Rs. 4.83 lakhs, and awarded the same to Contractor 'G' in September 1981 at a cost of Rs. 12.08 lakhs. A few months later (March 1982) some more work valued at Rs. 0.93 lakh was also off-loaded to Contractor 'G' at a cost of Rs. 2.72 lakhs. Subsequently, variations in quantities of work arose due to provision of a retaining wall, change in design for bridges and change in alignment. These were also entrusted to Contractor 'G'.

The extra expenditure on account of off-loading of the work and introducing subsequent changes in the scope of work comes to Rs. 11.13 lakhs.

III. Trichur-Ollur sub-section—Earthwork in Reach-II

An agreement was entered into in August 1978 with a Contractor for execution of this work at a cost of Rs. 11.64 lakhs, within eighteen months (i.e. by February 1980). The work was not completed by the due date owing to delay in acquisition of land and delay in shifting of signal wires and electric poles by the Administration, and labour problems. Extension was granted upto 31st March 1981. However, in January 1981 the Administration terminated the agreement at the risk and cost of the contractor on grounds of unsatisfactory performance. After invitation of open tenders, (May 1981) fresh agreement for the balance work (value : Rs. 8.27 lakhs) was concluded (December 1981) with the same contractor at a cost of Rs. 23.77 lakhs involving extra expenditure of Rs. 15.50 lakhs. The Administration's claim for Rs. 15.50 lakhs as risk payment, is still to be realised (July 1983).

IV. Chalakudi-Angamali sub-section—Earthwork in Reach-I

An agreement for executing the above work at a cost of Rs. 11.24 lakhs was entered into with contractor 'K' in February 1979, stipulating the date of completion as August 1980. Owing to the non-availability of land, non-removal of telegraph posts etc. by the Railway Administration, the progress of work was slow. In August 1980, the contract was terminated. By then, a sum of Rs. 44,068 only had been paid to the contractor. A fresh agreement was entered into with Contractor 'L' in February 1981 to execute the balance work at a cost of Rs. 18.74 lakhs. The agreement with Contractor 'L' was also terminated in July 1981 on grounds of poor performance by him.

By then, an amount of Rs. 1.78 lakhs had been paid to him. Yet another agreement was entered into in January 1982 with Contractor 'M' for executing the balance works at a cost of Rs. 29.99 lakhs. Subsequent to the award of the contract, variations in quantities arose owing to the change in scope of the work, introduced by the Administration. This led to the value of contract going up to Rs. 37.46 lakhs. The Administration claimed a sum of Rs. 21.22 lakhs as risk damages from the Contractors 'K' & 'L'. These are yet to be realised (July 1983). Besides, owing to the change in the scope of work an additional earthwork in bank to the extent of 24,000 cu.m. had to be done by Contractor 'M'. This involved an additional expenditure of Rs. 5.78 lakhs, as compared to the cost of getting it done under the agreement with Contractor 'K'. The total extra expenditure, therefore, comes to Rs. 27 lakhs.

V. Palaghat-Shoranur sub-section—Earthwork in Reach I

An agreement for this work at a cost of Rs. 10.06 lakhs was concluded in June 1979 with Contractor 'N', for completion of work within 18 months (i.e. by December 1980). The work was, however, not completed due to the non-shifting of telephone posts, changes in bridge plans, non finalisation of working sections by the Administration and labour problems. The currency of the agreement was extended till December 1981. During this period, the following events took place :—

(a) In April 1981 the Administration decided to provide a retaining wall and entered into separate agreement with the Contractor (in December 1981) for execution at a cost of Rs. 1.56 lakhs. Had this been done at the rates in the original agreement, it would have cost Rs. 75 thousand. Thus the extra expenditure on this account was Rs. 81 thousand.

(b) In July 1981, the Administration decided on offloading nearly 10,300 cu.m. of earthwork in certain chainages from this contract and concluded another agreement with the same Contractor (December 1981) for executing off-loaded work. The value of this agreement was Rs. 3.41 lakhs. The cost of executing this work according to the original agreement would be Rs. 1.25 lakhs. The extra expenditure on this account came to Rs. 2.15 lakhs.

(c) While finalising the original tenders for the work, the requirements of earthwork at the yard at Parli

were not assessed. For this purpose, fresh tenders were invited in April 1981 and an agreement was entered into in September 1981 with Contractor 'P' at a cost of Rs. 10.02 lakhs. The execution of this work under the main agreement would have cost Rs. 4 lakhs. The extra expenditure on this account came to Rs. 6.02 lakhs.

The agreement with Contractor 'N' was terminated in December 1981 on grounds of unsatisfactory performance. By then, payments to the extent of Rs. 3.73 lakhs had been made. The balance works (other than those off-loaded earlier) were entrusted on the basis of open tenders, to the same contractor at considerably higher rates under an agreement entered into in April 1982. The value of the agreement was Rs. 15.32 lakhs. The non-completion of the work within the period originally stipulated, the off-loading of work, the introduction of new items and finally entering into an agreement for executing the balance works—all resulted in an extra expenditure of Rs. 17.05 lakhs, of which Rs. 8.05 lakhs were assessed as recoverable from Contractor 'N'.

VI. Palghat-Shoranur sub-section—Earthwork Reach-III

An agreement was entered into (August 1979) for this work, with Contractor 'T' at a cost of Rs. 16.65 lakhs. The work was to be completed by January 1981. The currency of the agreement was extended till June 1982 for reasons such as delay in finalisation of bridge plans, shifting of telegraph posts and land acquisition. In February 1981, cost escalations due to delays claimed an additional payment of Rs. 8.18 lakhs. The scope of the bridge work was altered by the Administration and plans therefor were finalised by April 1981. This work was removed from the purview of the agreement and a fresh agreement was entered into with Contractor 'W' in September 1981. The extra expenditure involved in executing the work under the new agreement came to Rs. 5.10 lakhs. Thus, the Administration were put to an extra expenditure of Rs. 13.28 lakhs.

ANNEXURE—XVI

[cf. Paragraph 15. IV(i)]

Working of Zonal Contracts on South Central Railway

I. Execution of works through other than zonal contractors at higher cost

On Secunderabad division a test check for the years 1980-81 and 1981-82, revealed that in several cases, works costing Rs. 50,000 and less, which could have been economically got executed through the agency of zonal contractors, were entrusted to other agencies at higher rates involving extra expenditure to the tune of Rs. 11 lakhs. While entrusting works to other agencies, some of the items of work included in the Standard Schedule of Rates were clubbed with other than standard items and treated as composite non-standard items of work. In 23 cases, contracts had been awarded by limiting quotations from a few contractors and not through open tenders. Fourteen special contractors happened to be zonal contractors.

II. Acceptance of high rates in 1979-80

Tenders for zonal contracts from 1979-80 onwards were invited with reference to the Schedule of Rates, revised in 1979. Prior to this Schedule of Rates of 1970 was in force, except on Guntakal Division where Southern Railway's Schedule of Rates of 1976 was in force (Guntakal Division was transferred to South Central Railway in October 1977). According to the Railway Administration's own assessment, the rates in Schedule of Rates of 1979 could be equated to (+) 75 per cent of rates in the Schedule of Rates of 1970 and (+) 46 per cent of rates of Southern Railway's Schedule of Rates of 1976. The escalation factor, aforesaid, was not publicised. In consequence, rates accepted for zonal contracts for 1979-80 happened to be very high. In fact, the rates declined in subsequent years in many zones on Secunderabad, Hyderabad and Vijayawada Divisions (despite all round inflation). On the basis of the rates accepted in 1981-82, the extra expenditure on the works executed in 1979-80 would work out to Rs. 5.86 lakhs. Thus, the Railway

Administration had grossly erred in implementation of the Revised Schedule of Rates of 1979 in as much as it failed to explain the extent of escalation already accommodated in the Revised Schedule of Rates, and thereby obtain lower rates from the tenderers through negotiations.

III. Splitting up of works

Only works costing upto Rs. 50,000 each are to be got executed through zonal contracts. In Vijayawada Division, works of repairs to leaky roofs, costing Rs. 22.30 lakhs were split up and got executed through zonal contractors during the period July 1980 to June 1981. The rates paid in these cases varied from Rs. 24.75 to Rs. 35.09 per sq. metre. Subsequently, based on open tenders invited in April 1981 for repairs to leaky roofs, 3 agreements (value Rs. 3.97 lakhs) were concluded at rates ranging from Rs. 19.90 to Rs. 22.90 per sq. metre. These rates were substantially lower than the rates paid to zonal contractors. Had the Railway Administration invited open tenders *ab initio*, extra expenditure of Rs. 5.45 lakhs incurred by entrusting the works to zonal contractors could have been avoided.

IV. Rejection of lower offers

(i) In Vijayawada Division, lower offers for zonal contracts for 1980-81 and 1981-82 were rejected in five cases on the ground that the rates were unworkable and in one case also on the plea that the tenderer, though a standing contractor of the Division had not worked in a particular zone in the past. It was held that rates lower than those in the Standard Schedule of Rates of 1979 should be deemed as unworkable rates. A review of the rates accepted in Vijayawada Division during 1979-80, however, revealed that, in 7 cases, Railway Administration had accepted rates ranging from 11 per cent to 5 per cent below Standard Schedule of Rates. Similarly, during 1980-81 the rates accepted in 6 cases were 9 per cent to 2 per cent below Standard Schedule of Rates. In 1981-82 there were 6 cases where the rates were lower than those of the Standard Schedule of Rates of 1979 by 9 per cent to 1 per cent. The acceptance of higher offers in these 5 cases involved an extra expenditure of Rs. 2.16 lakhs.

(ii) On Guntakal Division, lower offers received in 6 cases in response to tenders invited for zonal contracts for the year 1981-82, were rejected on the ground that the tenderers had already been allotted work in some other zones of the division. There were, however, cases of awarding as many as 7 to 8 zonal

contracts to a single contractor of Secunderabad and Hyderabad divisions. The rejection of lower offers in Guntakal Division resulted in extra expenditure of Rs. 2.27 lakhs.

V. Inconsistent stand of Tender Committee

There were cases, in which the Tender Committee consisting of the same officials did not follow a uniform procedure in recommending acceptance or rejection of tenders in Hubli and Hyderabad Divisions.

The lowest offers received from a tenderer in 4 zones of Hubli Division for the year 1980-81 were rejected on the ground that he had paid only Rs. 2,000 as earnest money as against the prescribed amount of Rs. 10,000. However, in another case the same tender committee accepted an offer, though the guarantee bond submitted by the tenderer was not valid on the date of acceptance of his offer, and consequently, no deposit, whatsoever, was available towards earnest money. In still another case a tenderer who was new to the Railway and also had not deposited the earnest money was asked (1978-79) to attend negotiations after paying the earnest money. However, the offer of a co-operative society was passed over (1979-80) for want of earnest money deposit, and because the society was new to the Railway. The above inconsistencies in the approach of the Tender Committee resulted in additional expenditure of Rs. 1.83 lakhs.

VI. Non-finalisation of tenders in time

Out of 390 tender notices issued for award of zonal contracts during the years 1977-78 to 1981-82 tenders were not finalised in 247 cases by the due date viz. 30th June, to make these operational from 1st July as per prescribed schedule. There was delay upto 1 month in 119 cases, 2 months in 52 cases and more than 2 months in 76 cases. Thus, 63 per cent of the zonal contracts were not available for operation by 1st July, as required. This resulted in delayed execution of work.

ANNEXURE—XVII

(cf. Paragraph 19)

Total holding of land of Indian Railways

Sl. No.	Railway	Under occupation of Railway Admn. (In lakhs of acres)	Land under Railway's own utilisation (In lakhs of acres)	Surplus land available with Railway Administration (In lakhs of acres)
1	2	3	4	5
1.	Central	1.09	0.83	0.26
2.	Eastern	0.89	0.56	0.33
3.	Northern	0.54	0.31	0.23
4.	North Eastern	1.02	0.67	0.35
5.	Northeast Frontier	0.61	0.48	0.13
6.	Southern	0.59	0.40	0.19
7.	South Central	0.83	0.48	0.35
8.	South Eastern	1.60	0.94	0.66
9.	Western	1.13	0.89	0.24
	Total	8.30	5.56	2.74

Land under Railway's own utilisation 67.06%

ANNEXURE—XVIII

(cf. Paragraph 19.III)

Total area licensed out under G.M.F. scheme

Sl. No.	Railway	Area in Acres
1	2	3
1.	Central	7,148
2.	Eastern	13,036
3.	Northern	11,923
4.	North Eastern	8,822
5.	Northeast Frontier	3,783
6.	Southern	3,715
7.	South Central	1,724
8.	South Eastern	15,897
9.	Western	7,460
	Total	73,508

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ERRATA

Sl. No.	Page No.	Line No.	For	Read
1	1	Footnote **	1.72 PAC's of	1.72 of PAC's
2	10	27	acounting	accounting
3	12	8 (table)	train	trains
4	16	table (Col. 6)—entry against Tea	64	63
5	19	28	Lable	Label
6	29	6 from bottom	160.165	160-165
7	31	6 from bottom	decison	decision
8	31	-do-	termba (unweight)	timber (unwrought)
9	35	3	ndicated	indicated
10	36	table-1981-82 (Col. 4)	35,779	35,799
11	41	9 from bottom	Accordingly	According
12	42	14	72.625	72,626
13	43	8 from bottom	37.988	37,988
14	43	Footnote	69.590	69,590
15	45	4	agency	urgency
16	60	10 from bottom	Moraj	Miraj
17	61	12 from bottom	1.46	1.47
18	61	8 from bottom	2,65	2.65
19	63	15	Rs. 8.86 crores	Rs. 6.86 crores
20	64	11	were	was
21	65	4 from bottom	Disposal	Disposals
22	66	28	works	work
23	83	11 from bottom	year	years
24	83	Footnote	in collaboration of	in collaboration with
25	90	11 from bottom	receipts	receipt
26	90	15 from bottom	—	Delete A.
27	91	7	20.3	20.3 tonne
28	91	18	6000	from 6000
29	95	7 from bottom	floated in	floated on
30	98	9	news	new
31	99	1	One	Out
32	101	14-15	compured	computed
33	101	15	3,957, 88	3,957.88
34	101	-do-	3,79,67	3,879.67
35	103	21	it	its
36	105	9	legal	feed
37	108	13	air-conditioning	air-conditioned
38	111	8	ot Heavy	of Heavy
39	115	Sl. No. 1 of table	Nulagunna-thukavu	Mulagunna-thukavu

Sl. No.	Page No.	Line No.	For	Read
40	121	4 from bottom	basis	basic
41	122	4-5	exeedted	executed
42	133	22	Gorakpur	Gorakhpur
43	135	last tline	95,525	95,025
44	136	table-Southern -Col. 5	683	1683
45	136	table-South Eastern-Col. 5	29	329
46	136	Footnote*	as the end of	at the end of
47	137	19	continuous	continues
48	138	6 from bottom	Count's degree	Court's decree
49	141	2 from bottom	outsanding	outstanding
50	143	9	etxra	extra
51	143	8 from bottom	instruction,	instructions
52	145	13	cultiavtors	cultivators
53	145	12 from bottom	frutify	fructify
54	147	First line	Utter Pradesh	Uttar Pradesh
55	151	3 from bottom	he	the
56	153	Paragraph numbering	31	21
57	159	3	papyments	payments
58	160-161	Sl. No. 6 Col.- 1978-79	36.	.36
59	-do-	Sl. No. 7 Col.- 1978-79	23.	.23
60	-do-	Sl. No. 2 Col.- 1980-81	*	4.3
61	-do-	Sl. No. 7 Col.- 1980-81	*	7
62	164	Sl. No. 21 Col. 6	we	wet
63	170	6 from bottom	2.070 tonnes	2,070 tonnes
64	171	First line	rail	rails
65	178	Col. 5 against entry Virudhunagar Shencottai section	1979-80	1980-81
66	178	Col. 5 against entry Villupuram-Katpadi section	1980-81	1979-80
67	183	Heading	(cf. Paragraph 7.VI-2)	(cf. Paragraph 7.IV-2)
68	187	6	February an d July, 1974 as these found	February and July 1974, as these were found
69	190	11	24,000	24,100
70	190	16	Palaghat	Palghat