

## Railways

9.82 Railroads are an extremely efficient form of transportation. For example, the energy consumption for freight movement on railroads is 440 Joules/KgKm, about a quarter of 1,836 Joules/KgKm required for trucks. In addition, the railways generate less pollution, and involve fewer accidents.

9.83 The network of Indian Railways (IR) is spread over 63,122 route kilometre (Rkm), comprising broad gauge (45,622 Rkm), metre gauge (14,364 Rkm) and narrow gauge (3,136 Rkm). Roughly 26 per cent of this network is electrified. Railways have taken certain proactive measures to face the challenges from other modes.

9.84 In 2002-03, IR achieved originating revenue earning freight loading of 518.7 million tonnes – an increase of 26.2 million tonnes over 2001-02. The freight loading performance of railways in 2003-04 stood at 557.4 million tonnes, i.e. 38.7 million tonnes more than that achieved during 2002-03. The overall increase in revenue earning freight traffic in terms of Net Tonne Kilometers (NTKM) during 2002-03 works out to 6 per cent over the performance of 2001-02. During 2003-04, the increase in NTKMs over 2002-03 was 7.9 per cent. During the year 2003-04, the representative index of wagon utilisation expressed in terms of Net Tonne Kilometre per wagon per day increased from 2,468 in 2002-03 to 2,554 in 2003-04 (Table 9.19).

9.85 During the year 2003-04, the number of passenger carried by the Railways was 5,112 million, an increase of 2.85 per cent over 2002-03. Transportation services measured in passenger kms, which is the product of the number of passengers carried and the average distance traversed, were 533 billion during 2003-04, up by 3.4 per cent from the level of 515 billion in 2002-03.

9.86 There has been significant effort at 'tariff rebalancing' and rationalisation of fare and freight structures in the Railways Budgets 2002-03 and 2003-04. These include reducing the number of classes for freight tariff from 59 to 27, and reducing the ratio between the

highest and the lowest freight rates from 8.0 to 2.8 and reduction in freight rates for certain high-rated commodities such as Petroleum products, iron, steel and cement.

9.87 Rail Vikas Nigam Limited (RVNL) was setup in January 2003, as an effort to create new institutional mechanisms for implementing railway projects through a blend of budgetary support and non-budgetary initiatives. It is implementing a part of the National Rail Vikas Yojana. An outlay of Rs. 717 crores has been provided for RVNL, during the year 2004-05, to execute 38 projects which form part of the Golden Quadrilateral.

9.88 IR has entered into a range of Memorandum of Understanding/Agreements with the State governments of Andhra Pradesh, Jharkhand, Karnataka, Maharashtra, Tamil Nadu and West Bengal. These cost-sharing/public private agreements with the State governments and other agencies are for the purpose of executing various projects. A Special Purpose Vehicle (SPV) named PRCL (Pipavav Railway Corporation Limited) was formed with equal equity participation from the Ministry of Railways and GPPL (Gujarat Pipavav Port Limited) for construction, operation and maintenance of Surendrangar-Pipavav board gauge line. It has implemented Surendrangar-Papavav Gauge Conversion/New Line Project. The construction of this line has been completed and thrown open for goods traffic since March 2003.

9.89 Under public-private partnership scheme, an SPV named HMRDC (Hassan-Mangalore Rail Development Company) has been formed for construction (Gauge Conversion), operations and maintenance of a broad gauge railway track between Hassan and Mangalore connecting the New Mangalore Port, with participation of Government of Karnataka, K-RIDE (Karnataka Rail Infrastructure Development Company) and other strategic investors. Similarly an SPV named KRCL (Kutch Railway Company Limited), has taken over the gauge conversion work between Palanpur and Gandhidham providing a short route to the Ports of Mundra and Kandla from northern hinterland.

**Table 9.19 : Performance of the Railways**

1	2001-02	2002-03	2003-04*	Change over previous year	
				2002-03	2003-04
	2	3	4	5	6
				( per cent )	
1 Total revenue earning freight traffic (million tonnes)	492.5	518.7	557.4	5.3	7.5
(i) Coal	229.8	235.9	251.7	2.7	6.7
(ii) Raw Materials for steel plants (excl.coal)	39.4	41.0	44.0	4.1	7.3
(iii) Pig iron & finished steel from steel plants	12.4	13.6	14.3	9.7	5.1
(iv) Iron ore for export	15.7	16.7	26.7	6.4	59.9
(v) Cement	44.0	46.2	49.5	5.0	7.1
(vi) Foodgrains	32.8	45.6	45.4	39.0	-0.4
(vii) Fertilizers	27.2	26.5	25.8	-2.6	-2.6
(viii) POL	35.6	34.0	32.0	-4.5	-5.9
(ix) Balance (other goods)	55.6	59.2	68.0	6.5	14.9
2 Net tonne kilometers (billion)	333.2	353.2	381.2	6.0	7.0
3 Net tonne kilometers per wagon per day (broad gauge)	2,223	2,468	2,554	11.0	3.5
4 Passenger traffic originating (million)	5,093	4,971	5112	-2.4	2.8
5 Passenger kilometers (billion)	491#	515	533	4.9	3.5
* Provisional.		# Revised			
Source : Ministry of Railways					

9.90 During 2003-04, the fare structure for Rajdhani Express and Shatabdi Express trains was rationalised. The basic fares for each class of Jan Shatabdi Express trains were reduced from the earlier mark-up of 10 per cent to 5 per cent over the fares of corresponding class of Super fast Mail/ Express trains. The concept of reduced fares during non-peak periods was introduced in the railways. As a experimental measure, the basic fares of AC First Class and AC 2-Tier in all Rajdhani Express trains were reduced by 10 per cent for jounies performed between the period July 15 to September 15, 2003. This experiment has been successful and has resulted in a significant increase in the number of passengers and earnings during this period for various trains. The number of passengers went up by 27 per cent and earnings recorded

an increase of 15 per cent in 2003 as compared to 2002 for the same period. Internet Ticketing System which was initiated in 2002 at Delhi has been extended to more than 100 major cities so far in India.

9.91 Safety on Indian Railways has been receiving the highest priority. The main index of rail safety, viz, train accidents per million passenger kms has dropped from 0.55 in 2001-02 to 0.44 in 2002-03. A White Paper on 'Safety' was tabled in both the Houses of Parliament in April, 2003 which offered a review of the safety performance of the Indian Railways in terms of accidents which have occurred on the system during the last four decades and measures taken towards modernization of infrastructure such as track, bridges, rolling stock as also the relief and rescue system prevalent on the Indian

Railways. The White Paper also examined the role of human element specially that of the failure of railway staff in accidents so as to provide appropriate managerial inputs for development of human resources. The Corporate Safety Plan of Indian Railways (2003-2013) was formulated and presented in both the Houses of Parliament in August, 2003. It lays down the safety related objectives, strategies and targets which the Indian Railways would be striving for in the next decade. It also lists out the various works and

programmes to be undertaken to achieve its various goals, involving an investment of Rs. 31,385 crore over the period.

9.92 Out of Rs. 17,000 crore of non-lapsable Special Railway Safety Fund (SRSF) set up in 2001-02, to wipe out the arrears in renewal/ replacement of overaged assets within a time frame of six years, the expenditure in first two years was Rs. 3,920.60 crore. For the year 2003-04 (RE) the outlay under SRSF was Rs. 2,350.66 crore.