

## RAILWAYS

9.51 The Indian Railways is the world's third largest rail network under a single management. Better resource management through increased wagon load, faster turnaround time and a more rational pricing policy has led to a perceptible

improvement in the performance of the Railways. Out of the freight and passenger traffic, the freight segment accounts for about 70 per cent of revenues. Within the freight segment, bulk traffic accounts for nearly 84 per cent of revenue earning freight traffic (in physical terms), of which about 43 per cent is coal (Table 9.16).

**Table 9.16 : Performance of the Indian Railways**

Particulars	2007-08*	2008-09*	Change (per cent)	
			2007-08	2008-09 d
<b>1. Revenue earning freight traffic (million tonnes)</b>	<b>793.9</b>	<b>832.1</b>	<b>9.0</b>	<b>4.9</b>
Coal	336.9	369.4	7.5	9.7
Raw materials for S.P. (excl. iron ore)	11.1	10.9	—	(-) 2.6
Pig iron & finished steel	25.8	27.1	—	5.3
Iron ore for export	136.7	130.5	—	-4.6
Cement	79.0	86.0	8.0	8.8
Food grains	38.2	34.1	-8.7	-10.7
Fertilizers	35.9	41.2	4.6	15.1
POL	35.9	38.8	1.9	8.0
Container Service	21.1	28.9	—	36.4
Balance (other goods)	73.3	65.2	—	-11.0
<b>2. Net tonne kilometres (billion)</b>	<b>521.3</b>	<b>538.2</b>	<b>8.4</b>	<b>3.2</b>
<b>3. Net tonne kms./wagon/day (BG)</b>	<b>3539 a</b>	<b>8472 c</b>	<b>9.3</b>	<b>—</b>
<b>4. Passenger traffic orig. (million) (d)</b>	<b>6524 b</b>	<b>6971 b</b>	<b>5.0</b>	<b>6.9</b>
<b>5. Passenger kilometres (billion)</b>	<b>770 b</b>	<b>778 b</b>	<b>10.8</b>	<b>—</b>

Source : Ministry of Railways:

a) Upto March in terms of 4-wheelers,  
c) Calculated in terms of 8-wheelers,

b) April-February (estimated),  
d) Excludes Metro Kokatta.

\*Excludes 1.21 MT for 2007-08 and 1.12 MT for 2008-09 for Konkan Railway Loading. Figures of 2007-08 reflect the revised commodity group as modified from October 2007. As such, except for Coal, Pig Iron and finished steel from S.P., Cement, Foodgrains, Fertilizers and Mineral oil (POL), these are not comparable with the figures of previous years.

## Freight charges

9.52 Railways have rationalized the freight structure extensively to make it simple and transparent. Pursuing market responsive freight policies, the value-based freight rates have been changed to fixed ones. Under the new pricing strategy, surcharge is levied during peak season and discounts offered during lean season, but, peak and non-peak seasons have been fixed uniformly for all the commodities while many commodities have different peak and non-peak seasons. Therefore in 2008-09, Railways have decided to modify this policy as per the prevailing market conditions. In order that the difference between highest and lowest rates is not more than two times, freight rates for petrol and diesel were reduced by more than 17 per cent during the last three years.

## Passenger fares

9.53 There is no change in Second Class fares on Suburban sections. Second Class Fares upto Rs.50.00 per passenger on Non-suburban Mail/ Express including Superfast trains and Ordinary passengers have been reduced by Re.1. Second Class Fares beyond Rs.50.00 per passenger on Non-Suburban section of M/E & Passenger including Superfast trains have been reduced by 2%. Sleeper class fares beyond Rs.50.00 per passenger for Mail/ First Class, AC 2-tier, AC- 3-tier and AC Chair Car has been reduced by 2% for all distances. There is no change in the existing fares of First Class Mail/ Express and Ordinary trains.

## Upgradation of passenger amenities

### Station amenities

9.54 Out of the 594 stations identified for upgradation of passenger amenities through Model Station scheme, 325 stations have already been developed, while the rest are at various stages of progress. Under the plan to identify five stations in each Division to give a facelift on priority basis under the Touch & Feel Scheme, 637 stations have been identified and 395 stations have been completed. The works for upgradation of passenger amenities at B and D category stations are planned to be completed by March 2010. In order to accommodate longer trains carrying 24/26 coaches, platforms at more than 502 (out of 596) stations have also been completed during last three years.

## Train information

9.55 Real time train running information to passengers is proposed to be provided through online coach indication display boards and train arrival and departure display boards. The trial on one of the pilot project "Satellite Imaging for Rail Navigation (SIMRAN)" using the real time train tracking through GPS and mobile (GSM) technologies has been successfully completed by RDSO, Lucknow in coordination with the Indian Institute of Technology (IIT), Kanpur.

## Computerization of passenger and freight services

9.56 The computerized passenger reservation system of Indian Railways is the largest passenger reservation network in the world, with 1,721 locations and more than 6,800 terminals (end-2008-09). On an average, 3.82 crore passengers per month are being booked in PRS with average passenger earning of Rs.1,300 crore per month. Further, Railways has tied up with the India Post for operation of PRSs through Post Offices (Table 9.17).

**Table 9.17 : PRS facilities**

	Before 2006-07	2006- 07	2007- 08	2008- 09
Number of locations where PRS facilities were made available	1317	82	234	88

## Unreserved ticketing system

9.57 Computerized unreserved ticketing system (UTS), a project initiated to provide a fast, flexible and secure method of issuing unreserved tickets, enables passengers to get unreserved tickets up to three days in advance from any counter and from any station to any station in a defined "cluster.". Presently, UTS is available at 2,079 locations with about 5,320 counters. Automatic ticket vending machines have been installed at 375 locations.

## Freight operations information system

9.58 FOIS gives an account of all demands, number of loads/rakes/trains and their pipeline, freight locos, stock at aggregate level etc. FOIS Phase I (Rake Management System—RMS) module implemented at 243 locations, covers all major yards/lobbies and control offices at divisions and zones.

FOIS Phase II (Terminal Management System– TMS) has been commissioned at 523 locations.

### Rail safety

9.59 With steps taken to ensure safety, the accidents per million train kilometre, an important index of rail safety, came down from 0.55 in 2001-02 to 0.20 in 2008-09. The number of consequential train accidents decreased from 194 in 2007-08 to 177 in 2008-09. Special Railway Safety Fund (SRSF), created in 2001-02 to wipe out the arrears in renewal and replacement of over-aged assets and for safety enhancement within six years, expended was Rs. 16,318 crore till 2007-08. Most of the intended works were completed by 2007-08. Adequate contribution is being made to the Depreciation Reserve Fund (DRF) for future asset renewals (Box 9.5).

### Investment in capacity

9.60 To meet the increasing traffic requirement, the production capacity at CLW was increased from 150 in 2006-07 to 200 locos per annum in 2007-08. Further, an order has been placed on BHEL in December 2007 for supply of 50 WAG-7 electric locos. To meet the increasing requirement of POH of electric locos, a Greenfield POH workshop with state-of-the-art facilities to undertake POH of 100 electric locos per annum is being constructed in Vadodara in Gujarat. The status of track electrification is as under (Table 9.18).

9.61 Dedicated Freight Corridor (DFC) involves an investment of more than Rs. 28,000 crore, comprising the Eastern Corridor from Ludhiana to Dankuni and Western Corridor from Mumbai to Dadri/ Tughlakabad (a total of 3,287 km). The project is planned to be implemented by an SPV called Dedicated Freight Corridor Corporation of India

**Table 9.18 : Status of Indian Railways electrification**

Period	RKMs electrified	Expenditure (Rs. crore)
2006-07	361	270.80
2007-08	502	488.97
2008-09	797	780.37

Source : Ministry of Railways

Limited and will be funded through internal generation, domestic/external borrowing as well as multilateral funding sources. Both corridors will be electrified. Logistic parks are also being planned along the DFC. The Government is also planning various industrial zones/nodes under the Delhi-Mumbai Industrial Corridor project along the Western Corridor.

9.62 Considering the need for developing Dedicated Freight Corridors on other important routes, feasibility studies on North-South (Delhi-Chennai), East-West (Mumbai-Kolkata), East Coast (Kharagpur-Vijayawada) and Southern (Chennai-Goa) have been conducted.

### Technology upgradation

9.63 RailTel was set up for creating OFC-based communication infrastructure for train operations and to generate revenue through commercial exploitation of surplus capacity. RailTel has set up an OFC network of 34,932 RKMs, of which 25,130 RKMs is of high bandwidth capacity. A PAN India MPLS network for providing connectivity to data and voice circuits have also been set up. Till date, 220 important and about 3,150 other stations have been put on OFC network. With this, the Indian Railways is now in a position to lease the surplus capacity on commercial terms.

### Box 9.5 : Achievements and new initiatives in signaling

- To increase efficiency and safety, modern signaling system with route relay/panel/electronic Interlocking along with multi aspect colour light signaling in replacement of over-aged mechanical/multi-cabin signaling system has been provided at 416 stations.
- Automatic block signaling (ABS) has been provided on 349 RKMs to increase line capacity.
- Intermediate block signaling (IBS) has been provided on 87 block sections to increase line capacity, by splitting the longer block sections.
- Anti collision device (ACD) is operational as a pilot project on Katihar-Guwahati-Dibrugarh-Ledo section of the North Frontier Railway.
- Train protection and warning system (TPWS) has been provided on 50 RKMs in Chennai-Gummiddipundi Section on the Southern Railway as an aid to drivers. This will prevent cases of "signal passing at danger" and overspeeding.
- 910 stations have been provided with highly durable LED signals to improve reliability and visibility of signals.
- Automatic clearance of block section has been provided at 492 sections through use of axle counter. This will reduce dependence on human element and enhance safety.

## Fuel consumption

9.64 Instructions have been issued to make all-out efforts to contain the consumption of diesel at last year's level with measures to improve fuel efficiency and reduce wastage. Besides, good practices like switching off locos when detention at any location is more than 30 minutes, strict regulation of shed fuel consumption, better maintenance of diesel locos and especially of fuel injection system, ensuring the working of dynamic brakes on locomotives, monitoring of trip fuel rations and review, checks on accounting of fuel at fuelling installations, and, rationalization of fuelling of locos to maximize topping of HSD oil from lower-priced installations, have been adopted. Zonal railways have been asked to encourage staff to come up with suggestions for effecting economy in fuel consumption (Table 9.19).

**Table 9.19 : Diesel Oil consumption/HSD Oil consumption**

(in million litres)

Year	Traction	Non-traction
2004-05	2080.634	34.173
2005-06	2111.190	39.109
2006-07	2211.531	39.949
2007-08	2284.061	43.729

Source : Ministry of Railways