Indian Railways, a historical legacy, are a vital force in our economy. The first railway on Indian sub-continent ran from Bombay to Thane on 16th April 1853. Fourteen railway carriages carried about 400 guests from Bombay to Thane covering a distance of 21 miles (34 Kilometers). Since then there has been no looking back. Today, it covers 6,909 stations over a total route length of more than 63,028 kilometres. The track kilometers in broad gauge (1676 mm) are 86, 526 kms, meter gauge (1000 mm) are 18, 529 kms and narrow gauge (762/610 mm) are 3,651 kms. Of the total route of 63,028 kms, 16,001 kms are electrified. The railways have 8000 locomotives, 50,000 coaching vehicles, 222,147 freight wagons, 6853 stations, 300 yards, 2300 goodsheds, 700 repair shops, and 1.54 million work force. Indian Railways runs around 11,000 trains everyday, of which 7,000 are passenger trains. Presently, 9 pairs of Rajdhani and 13 pairs of Shatabdi Express Trains run on the rail tracks of India.

It is interesting to note that though the railways were introduced to facilitate the commercial interest of the British, it played an important role in unifying the country.

Railways are ideally suited for long distance travel and movement of bulk commodities. Regarded better than road transport in terms of energy efficiency, land use, environment impact and safety it is always in forefront during national emergency.

Indian railways, the largest rail network in Asia and the world's second largest under one management are also credited with having a multi gauge and multi traction system.

The Indian Railways have been a great integrating force for more than 150 years. It has helped the economic life of the country and helped in accelerating the development of industry and agriculture. Indian Railways is known to be the largest railway network in Asia.

The Indian Railways network binds the social, cultural and economical fabric of the country and covers the whole of country ranging from north to south and east to west removing the distance barrier for its people. The railway network of India has brought together the whole of country hence creating a feeling of unity among Indians.
Organization Overview

The Ministry of Railways under Government of India controls Indian Railways. The Ministry is headed by Union Minister who is generally supported by a Minster of State. The Railway Board consisting of six members and a chairman reports to this top hierarchy. The railway zones are headed by their respective General Managers who in turn report to the Railway Board.

For administrative convenience Indian Railways is primarily divided into 16 zones:

<table>
<thead>
<tr>
<th>Railway Zone</th>
<th>Headquarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Railway</td>
<td>Mumbai CST</td>
</tr>
<tr>
<td>Eastern Railway</td>
<td>Kolkata</td>
</tr>
<tr>
<td>Northern Railway</td>
<td>New Delhi</td>
</tr>
<tr>
<td>North Eastern Railway</td>
<td>Gorakhpur</td>
</tr>
<tr>
<td>North East Frontier Railway</td>
<td>Maligaon, Guwahati</td>
</tr>
<tr>
<td>Southern Railway</td>
<td>Chennai</td>
</tr>
<tr>
<td>South Central Railway</td>
<td>Secunderabad</td>
</tr>
<tr>
<td>Western Railway</td>
<td>Church Gate, Mumbai</td>
</tr>
<tr>
<td>South East Central Railway</td>
<td>Bilaspur</td>
</tr>
<tr>
<td>East Coast Railway</td>
<td>Bhubaneswar</td>
</tr>
<tr>
<td>North Central Railway</td>
<td>Allahabad</td>
</tr>
<tr>
<td>North Western Railway</td>
<td>Jaipur</td>
</tr>
<tr>
<td>South Western Railway</td>
<td>Hubli</td>
</tr>
<tr>
<td>West Central Railway</td>
<td>Jabalpur</td>
</tr>
<tr>
<td>East Central Railway</td>
<td>Hajipur</td>
</tr>
</tbody>
</table>
The Ministry of Railways has following nine undertakings:

1. Rail India Technical & Economic Services Limited (RITES)
2. Indian Railway Construction (IRCON) International Limited
3. Indian Railway Finance Corporation Limited (IRFC)
4. Container Corporation of India Limited (CONCOR)
5. Konkan Railway Corporation Limited (KRCL)
6. Indian Railway Catering & Tourism Corporation Ltd (IRCTC)
7. Railtel Corporation of India Ltd. (Rail Tel)
8. Mumbai Rail Vikas Nigam Ltd. (MRVNL)
9. Rail Vikas Nigam Ltd. (RVNL)

Indian Railways have their research and development wing in the form of Research, Designs and Standard Organization (RDSO). RDSO functions as the technical advisor and consultant to the Ministry, Zonal Railways and Production Units.

Railway Budget

Since 1924-25, railway finances have been separated from General Revenue. Indian railways have their own funds in the form of Railway Budget presented to the Parliament annually. This budget is presented to the Parliament by the Union Railway Minster two days prior to the General Budget, usually around 26th February. It has to be passed by a simple majority in the Lok Sabha before it gets final acceptance. Indian Railways are subject to the same audit control as other government revenues and expenditure.

Passenger Traffic

The passenger traffic has risen from leaps and bounds from 1284 million in 1950-51 to 5112 million in 2002-2003.

Freight Traffic

The revenue fright traffic has also grown immensely from 73.2 million tones in 1950-51 to 557.39 million tones. Indian railways carry huge variety of goods such as mineral ores, fertilizers, petrochemicals, agricultural produce and others. It has been made possible with measures such as line capacity augmentation on certain critical sectors and modernization of signaling system and increase in roller bearing equipped wagons. Indian Railways make huge revenue and most of its profits are from the freight sector and uses these profits to augment the loss-making passenger sector.

Here, it is important to note that computerization of freight operations --- Freight Operations Information System (FOIS) has been achieved with the implementation of Rake Management System.
Facilities for Passengers

Computer based unreserved ticketing takes care of the large chunk of unreserved segment of passengers. This facility allows issuance of unreserved tickets from locations other than boarding station.

Indian Railway Catering and Tourism Corporation

IRCTC has launched on line ticketing facility with the aid of Center for Railway Information System, which can be booked on www. irctc.co.in. For the convenience of customers queries related to accommodation availability, passenger status, train schedule etc are all be addressed online. Computerized reservation facilities have made the life easy of commuters across India.

National Train Enquiry system is another initiative of Indian Railways which offers train running position on a current basis through various output devices such as terminals in the station enquiries and Interactive Voice Response Systems (IVRS) at important railway stations.

Indian Railways are committed to provide improved telecommunication system to its passengers. For this Optical Fibre Communication (OFC) system has been embraced, which involves laying optical fibre cable along the railway tracks.

In recent years Indian Railways have witnessed the marked rise of collaboration between private and public sectors. Few of the notable examples here are the broad gauge connectivity to Pipya Port where a joint venture company is formed with Pipava Port authority. Similarly Memorandums of Understanding has been signed between Railways and State governments of Andhra Pradesh, Karnataka, Maharashtra, West Bengal, Tamil Nadu and Jharkhand,

Rolling Stock

Today, Indian Railways have become self reliant in production of rolling stock. It supplies rolling stock to other countries and non-railway customers. The production units are at Diesel Locomotive Works, Varanasi, Chittaranjan Locomotive Works, Chittaranjan, Diesel-Loco Modernisation Works, Patiala, Integral Coach Factory, Chennai, Rail Coach Factory, Kapurthala, Wheel & Axle Plant, Bangalore and Rail Spring Karkhana, Gwalior.
Special Trains

Indian Railways have several special trains, which are known across the world such as Darjeeling Himalayan Railway, Nilgiri Mountain Railway, Palace on Wheels, Samjhauta Express, Lifeline Express, Fairy Queen, Himsagar Express and others.

Darjeeling Himalayan Railways, running from New Jalpaiguri to Darjeeling, a hill station at an elevation of 2134 meters has attained the World Heritage Status from UNESCO. The Nilgiri Mountain Railway is credited with being only rack railway in India. 'Palace on Wheels' gives you the experience of a royalty. The train passes through following destinations. Jaipur, Jaisalmer, Jodhpur, Sawai Madhopur, Chittaurgarh, Udaipur, Bharatpur and Agra. While Fairy Queen, the oldest functioning steam engine has received Heritage Award at the international Tourist Award apart from finding a place in Guinness Book of World Records.

Suburban Railway

Cities in India such as Mumbai, Chennai, Kolkata, Delhi, and Lucknow have dedicated suburban networks while Hyderabad and Pune share the tracks with long distance trains. The passenger traffic in suburban trains is handled mostly by electric multiple units.

The Mumbai Suburban Railway spread over 303-route kms carries more than 6.1 million commuters daily. It is one of the most intensively utilized public transportation in the world.

Kolkata metro is the first underground rapid transit system in India, which began operations in 1984. The line begins at Dum Dum in the north and continues till the southern end in Tollygunge.

Delhi metro, started in Dec 2002, is the second underground rapid transit system in India. Delhi Metro combines elevated, at-grade and underground lines. The Phase 1 of the network consists of 65.11 kms of route length with 13.01 kms underground called Metro corridor and 52.10 kms surface elevated called Rail Corridor. Phase II is presently under construction, with a target completion date of 2010.
National Vikas Yogna

The government of India has initiated a scheme, 'National Vikas Yojna' for the development of the Indian Railways. The scheme would focus on completion on strategic projects within a stipulated period of time. The key projects under this scheme are:

- Strengthening of Golden Quadrilateral and Diagonals connecting the 4 metro cities i.e. Delhi, Mumbai, Chennai and Kolkata.
- Providing Rail based port-connectivity and development of corridors to hinterland including multi-modal corridors for movement of containers.
- Construction of 4 mega bridges at Patna and Munger on river Ganga, at Bogibeel on river Brahmaputra and at Nirmali on river Kosi.

Indian Railways Objectives in 2008

Indian Railways created a history by generating a cash surplus before dividend of Rs 20,000 cr as against Rs 14,700 cr in the previous year. The Passenger earnings have increased by 14 percent while coach earnings have shown a rise of 48 percent. A quantum jump in freight business is another highlight of the year.

For the year 2007-2008 Construction of High Speed Passenger Corridors have been proposed. The corridors would have state of the art signaling and train control systems, for running high speed trains at speeds of 300 to 350 kms per hour; one each in the Northern, Western, Southern and Eastern regions of the country. The trains will cover distance distances of up to 600 kms in two to three hours. Private Public Partnership would be considered for High-speed corridors.

Steps would be taken to improve the suburban services in cities such as Mumbai, Kolkata, and Chennai. Mumbai MUTP-Phase I will be completed and the work on MUTP Phase II would be started. Suggestions have been made to introduce air-conditioned class services in suburban trains in Mumbai, Chennai and Kolkata and escalators at major stations.

The railway minister has proposed to use more IT services in the railways which would help in increasing passenger and freight earnings, reduce operating costs, ensure effective utilization of human and physical resources. ERP packages would be implemented in workshops, production units and selected zonal railways.

Gauge Conversion, Rolling Stock Modernization and Capacity Augmentation are the other aspects in the to do list of the Indian Railways.

The year 2007 will be celebrated as cleanliness year where efforts would be ensured to maintain cleanliness and hygiene at station premises in passenger trains, railway lines, waiting rooms etc.
Interesting Facts about Indian Railways

- **Shortest station name**: Ib near Jharsuguda on the Howrah-Nagpur main line (South Eastern Railway).
- **Longest station name**: Venkatanarasimharajuvariapeta often prefixed with Sri. on the Arakkonam-Renigunta section of the Southern Railway.
- **Longest run (time)**: The Himsagar Express running between Jammu Tawi and Kanyakumari, It covers its route of 3751km in 74 hours and 55 minutes.
- **Longest run for daily train**: The Kerala Express has daily service and covers 3054 km in its run (in 42.5 hours).
- **Longest non-stop run (distance)**: The Trivandrum Rajdhani does not have a technical halt at Ratlam and, therefore, travels non-stop between Vadodara and Kota (528km), covering the stretch in about 6.5 hours.
- **Trains with no commercial halts en route**: Sampoorna Kranti Exp, Howrah Rajdhani, Bombay Rajdhani, Pragati Exp and Pune Shatabdi
- **Shortest runs**: Nagpur - Ajni has scheduled services that are just 3km in distance. This is mainly a service for crew to travel from Nagpur station to the workshop at Ajni.
- **Highest number of halts**: Mail and Express trains [3/99] The Howrah-Amritsar Exp. leads in this category with 115 halts.
- **Busiest Station**: Lucknow which caters to as many as 64 trains per day.
- **Stations straddling state lines**: Navapur is a station that is half in Maharashtra and half in Gujarat. Bhawani Mandi station, on the Shamgarh-Kota section of the Bombay-Delhi line is half in Madhya Pradesh and half in Rajasthan.
- **Station with all the three gauges**: Siliguri station.

Indian Railways Bottlenecks

Indian Railways require finance for modernization however the required budgetary support is absent. For example, the provision of automated signaling system to prevent the crashes is missing. The stiff competition between private airlines has brought serious threat on upper class passengers of the railways. Though Rajdhanai and Shatabadi trains are the fastest and luxurious trains of India their speed and food service is not competitive as compared to the air travel.

The other key problem faced by the Indian Railways is the high accident rate, which includes derailment, collisions, many being run over by trains.

The earlier pay commission (in the years 1986 & 1996) recommendations had badly hit the bottom lines of the Railways and other Government Departments. The recommendations of sixth pay commission are expected by the end of 2008, which might make Indian railways go red again.