1.1 Introduction:

Indian Railways, abbreviated as IR, is a Department of the Government of India, under the Ministry of Railways, and is tasked with operating the rail network in India. The Ministry is headed by a cabinet rank Railways Minister, while the Department is managed by the Railway Board. Indian Railways is not a private corporate body; however, of late IR has adopted a corporate management style.

Indian Railways has a total state monopoly on India's rail transport. As of 2013-14, it is one of the largest and busiest rail networks in the world, transporting 8,425 million passengers and more than 1050.18 million tones of freight daily. Indian Railways is the world's ninth largest commercial or utility employer, by number of employees, with over 1.307 million employees. It is one of the world's largest railway networks comprising 1,15,000 km (71,000 mi) of track over a route of 65,436 km (40,660 mi) and 7,172 stations. As of 2014, IR owned a total of 2, 39,281 wagons, 62,924 coaches and 9,013 locomotives. The trains have a 5 digit numbering system and runs 12,617 passenger trains and 7421 freight trains daily. As of 31 March 2013, 20,884 km (12,977 mi) (31.9%) of the total 65,436 km (40,660 mi) route length was electrified. Since 1960, almost all electrified sections on IR use 25,000 Volt AC traction through overhead catenary delivery.

Railways were first introduced to India in 1853. By 1947, the year of India's independence, there were forty-two rail systems. In 1951 the systems were nationalized as one unit, becoming one of the largest networks in the world. Indian Railways operates both long distance and suburban rail systems.
History
A plan for a rail system in India was first put forward in 1832, but no further steps were taken for more than a decade. In 1844, the Governor General of India Lord Harding allowed private entrepreneurs to set up a rail system in India. Two new railway companies, Great Indian Peninsular Railway (GIPR) and East Indian Railway (EIR), were created and the East India Company was asked to assist them. Interest from investors in the UK led to the rapid creation of a rail system over the next few years. The first train in India became operational on 22 December 1851, and was used for the hauling of construction material in Roorkee. A year and a half later, on 16 April 1853, the first passenger train service was inaugurated between Bori Bunder, Bombay and Thane. Covering a distance of 34 km (21 miles), it was hauled by three locomotives, Sahib, Sindh and Sultan. This was the formal birth of railways in India.

The British government encouraged new railway companies backed by private investors under a scheme that would guarantee an annual return of five percent during the initial years of operation. Once established, the company would be transferred to the government, with the original company retaining operational control. By 1875, about £95 million were invested by British companies in Indian guaranteed railways.

The route mileage of this network was about 14,500 km (9,000 miles) by 1880, mostly radiating inward from the three major port cities of Bombay (Mumbai), Madras (Chennai) and Calcutta (Kolkata). By 1895, India had started building its own locomotives, and in 1896 sent engineers and locomotives to help build the Uganda Railway.
Extent of Great Indian Peninsular Railway network in 1870. The GIPR was one of the largest rail companies at that time. Soon various independent kingdoms built their own rail systems and the network spread to the regions that became the modern-day states of Assam, Rajasthan and Andhra Pradesh. A Railway Board was constituted in 1901, but decision-making power was retained by the Viceroy, Lord Curzon. The Railway Board operated under aegis of the Department of Commerce and Industry and had three members: - a government railway official is serving as chairman, a railway manager from England and an agent of one of the company railways. For the first time in its history, the Railways began to make a tidy profit. In 1907, almost all the rail companies were taken over by the government. Indian Railways is one of the largest employers in the world. Very few corporate entities, public or private, have a larger workforce.

**Indian Railways at Present:**

Today, the Indian rail system uses three different gauges depending on the rail traffic and area of the tracks. The first one is the Broad Gauge that is used in areas with high traffic and in areas with less traffic meter gauge is used. Mountain ranges like Nilgiri Mountain Railway and Darjeeling, Himalayan Railway resort to narrow gauge. This rail system is further divided into sixteen zones.
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### Passenger services

Indian Railways operates 8,702 passenger trains and transports 17 million daily across twenty-nine states and seven union territories.

The passenger division is the most preferred form of long distance transport in most of the country. A standard passenger train consists of eighteen coaches, but some popular trains can have up to 24 coaches. Coaches are designed to accommodate anywhere from 18 to 72 passengers, but may actually accommodate...
accommodate many more during the holiday seasons and on busy routes. The coaches in use are vestibules, but some of these may be dummied on some trains for operational reasons. Freight trains use a large variety.

Production Service:
The Indian Railways manufactures a lot of its rolling stock and heavy engineering components. This is largely due to historical reasons. As with most developing economies, the main reason is import substitution of expensive technology related products. This was relevant when the general state of the national engineering industry was immature.

Production Units, the manufacturing plants of the Indian Railways, are managed directly by the ministry. The General Managers of the PUs report to the Railway Board. The Production Units are:

- Chittaranjan Locomotive Works, Chittaranjan
- Diesel Locomotive Works, Varanasi
- Diesel-Loco Modernisation Works, Patiala
- Integral Coach Factory, Chennai
- Rail Coach Factory, Kapurthala
- Rail Wheel Factory, Bangalore

Suburban Rail
Many cities have their own dedicated suburban networks to cater to commuters. Currently, suburban networks operate in Mumbai (Bombay), Chennai (Madras), Kolkata (Calcutta), Delhi, Hyderabad and Pune. Hyderabad and Pune do not have dedicated suburban tracks but share the tracks with long distance trains. New Delhi, Kolkata, and Chennai have their
own metro networks, namely the New Delhi Metro, the Metro, and the Chennai MRTS- Mass Rapid Transport System, with dedicated tracks mostly lay on a flyover as in other local EMU suburban service in Mumbai and Kolkata.

Suburban trains that handle commuter traffic are mostly electric multiple units. They usually have nine coaches or sometimes twelve to handle rush hour traffic. One unit of an EMU train consists of one power car and two general coaches.

Thus, a nine coach EMU is made up of three units having one power car at each end and one at the middle. The rakes in Mumbai run on direct current, while those elsewhere use alternating current. A standard coach is designed to accommodate 96 seated passengers, but the actual number of passengers can easily double or triple with standees during rush hour. The Kolkata metro has the administrative status of a zonal railway, though it does not come under the seventeen railway zones.

**Freight:**
Indian Railway carries a huge variety of goods ranging from mineral ores, fertilizers and petrochemicals, agricultural produce, iron & steel, multimodal traffic and others. Ports and major urban areas have their own dedicated freight lines and yards. Many important freight stops have dedicated platforms and independent lines.

Indian Railways makes 70% of its revenues and most of its profits from the freight sector, and uses these profits to cross-subsidise the loss-making
passenger sector. Since the 1990s, Indian Railways has switched from small consignments to larger container movement which has helped speed up its operations. Most of its freight earnings come from such rakes carrying bulk goods such as coal, cement, food grains and iron ore.

Indian Railways also transports vehicles over long distances. Trucks that carry goods to a particular location are hauled back by trains saving the trucking company on unnecessary fuel expenses. Recently Indian Railways introduced the special 'Container Rajdhani' or CONRAJ, for high priority freight.

**Notable trains and achievements:**
The Darjeeling Himalayan Railway, a narrow gauge railway that still regularly uses steam as well as diesel locomotives is classified as a World Heritage Site by UNESCO. The route started earlier at Siliguri and now at New Jalpaiguri in the plains in West Bengal and traverses tea gardens en route to Darjeeling, a hill station at an elevation of 2,134 meters (7,000 ft).

- Nilgiri Hills in southern India is classified as a World Heritage Site.
- The Chatrapati Shivaji Terminus (formerly Victoria Terminus) railway station in Mumbai operated by Indian Railways.
- The Palace on Wheels is a specially designed train, frequently hauled by a steam locomotive, for promoting tourism in Rajasthan.
- The Deccan Odyssey along the Konkan route, but it did not enjoy the same success as the Palace on Wheels.
- The Karnataka government has recently introduced The Golden Chariot train which connects popular tourist destinations in Karnataka and Goa.
• The Samjhauta Express is a train that runs between India and Pakistan. However, hostilities between the two nations in 2001 saw the line being closed. It was reopened when the hostilities subsided in 2004.

• Another train connecting Khokhrapar (Pakistan) and Munabao (India) is the Thar Express that restarted operations on February 18, 2006; it was closed down after the 1965 Indo-Pak war.

• The Kalka Shimla Railway till recently featured in the Guinness Book of World Records for offering the steepest rise in altitude in the space of 96 kilometres.

• The Lifeline Express is a special train popularly known as the "Hospital-on-Wheels" which provides healthcare to the rural areas.

• Among the famous locomotives, the Fairy Queen is the oldest running locomotive on the mainline (though only for specials) in the world today.

• Kharagpur railway station also has the distinction of being the world's longest railway platform at 1072 m (3,517 ft).

• The Ghum station along the Darjeeling Toy Train route is the second highest railway station in the world to be reached by a steam locomotive.

Indian Railways operates 9,013 locomotives; 62,924 Coaching vehicles and 2,39,281 freight wagons. There are a total of 8,702 stations; 300 yards; 2,300 goods-sheds; 700 repair shops and a total workforce of 1.307 million. The shortest named station is Ib and the longest is Sri Venkatanarasimharajuvanripeta. The Himsagar Express, between Kanyakumari and Jammu Tawi, has the longest run in terms of distance and time on Indian
Railways network. It covers 3,745 km (2,327 miles) in about 74 hours and 55 minutes.

The Bhopal Shatabdi Express is the fastest train in India today having a maximum speed of 140 km/h (87 mph) on the Faridabad-Agra section. The fastest speed attained by any train is 184 km/h (114 mph) in 2000 during test runs. This speed is much lower than fast trains in other parts of the world.

1.2 Organizational Structure:
The apex management organization is the Railway Board, also called the Ministry of Railways. The board is headed by a Chairman who reports to the Minister of Railways. The board has five other members in addition to the chairman. The General Managers of the zonal railways and the production units report to the board.

Indian Railways is a department of the Government, being owned and controlled by the Government of India, via the Ministry of Railways rather than a private company. Indian Railways is administered by the Railway Board, which has six members and a chairman. Each of the sixteen zones is headed by a General Manager (GM) who reports directly to the Railway Board. The zones are further divided into divisions under the control of Divisional Railway Managers (DRM).

The divisional officers of engineering, mechanical, electrical, signal & telecommunication, accounts, personnel, operating, commercial and safety branches report to the respective Divisional Manager and are in charge of operation and maintenance of assets. In addition to the zones, the six
production units (PUs) are each headed by a General Manager (GM), who also reports directly to the Railway Board.

In addition to this the Central Organisation for Railway Electrification (CORE), Metro Railway, Calcutta and construction organisation of N F Railway are also headed by a General Manager. CORE is located at Allahabad. This organisation undertakes electrification projects of Indian Railway and monitors the progress of various electrification projects all over the country.

Apart from these zones and production units, a number of Public Sector Undertakings (PSU) is under the administrative control of the ministry of railways. These PSU units are:

- Dedicated Freight Corridor Corporation of India
- Indian Railways Catering and Tourism Corporation
- Konkan Railway Corporation
- Indian Railway Finance Corporation
- Mumbai Rail Vikas Corporation
- Railtel Corporation of India – Telecommunication Networks
- RITES Ltd. – Consulting Division of Indian Railways
- IRCON International Ltd. – Construction Division
- Rail Vikas Nigam Limited
- Container Corporation Limited
- Rail Land Development Authority – for commercial development of vacant railway land, is a statutory authority formed through an amendment of the Railways' Act, 1989
Centre for Railway Information Systems is an autonomous society under Railway Board, which is responsible for developing the major software required by Indian Railways for its operations.

1.3 Rail Budget and Finances:
The Railway Budget deals with the induction and improvement of existing trains and routes, the modernisation and most importantly the tariff for freight and passenger travel. The Parliament discusses the policies and allocations proposed in the budget. The budget needs to be passed by a simple majority in the Lok Sabha (India's Lower House). The comments of the Rajya Sabha (Upper House) are not binding. Indian Railways are subject to the same audit control as other government revenue and expenditures. Based on the anticipated traffic and the projected tariff, the level of resources required for railway's capital and revenue expenditure is worked out.

While the revenue expenditure is met entirely by railways itself, the shortfall in the capital (plan) expenditure is met partly from borrowings (raised by Indian Railway Finance Corporation) and the rest from budgetary support from the Central Government. Indian Railways pays dividend to the Central Government for the capital invested by the Central Government.

Though the Railway Budget is separately presented to the Parliament, the figures relating to the receipt and expenditure of the Railways are also shown in the General Budget, since they are a part and parcel of the total receipts and expenditure of the Government of India. This document serves as a balance sheet of operations of the Railways during the previous year and lists out plans for expansion for the current year.
The formation of policy and overall control of the railways is vested in Railway Board comprising the Chairman, Financial Commissioner and other functional Members for Traffic, Engineering, Mechanical, Electrical and Staff matters. As per the 2006 budget, Indian Railways earned Rs. 54,600 cr. Freight earnings increased by 10% from Rs. 30,450 cr. in the previous year. Passenger earnings, other coaching earnings and sundry other earnings increased by 7%, 19% and 56% respectively over previous year. Its year end fund balance is expected to stand at Rs. 11,280 cr.

Around 20% of the passenger revenue is earned from the upper class segments of the passenger segment (the air-conditioned classes). The overall passenger traffic grew 7.5% in the previous year. In the first two months of India's fiscal year 2005–06 (April and May), the Railways registered a 10% growth in passenger traffic, and a 12% in passenger earnings.

1.4 Current Issues and Upgrades:
Although accidents such as derailment and collisions are less common in recent times, many are run over by trains, especially in crowded areas. Indian Railways have accepted the fact that given the size of operations, eliminating accidents is an unrealistic goal, and at best they can only minimize the accident rate. In the past, Konkan Railway route has suffered from landslides in the monsoon season, causing fatal accidents. Outdated communication, safety and signaling equipment, which used to contribute to failures in the system, is being updated with the latest technology.
The Sixth Pay Commission has been constituted in India to review the pay structure of Government employees, and its recommendations are expected by the end of 2008. Based on its recommendations, the salaries of all Railways officers and staff are expected to be revised with retrospective effect from January 1, 2006. If previous Pay Commissions are taken as an indicator, this revision could be 50%, thus having an impact on present and future Railway budgets.

The Rajdhani Express and Shatabdi Express are the fastest and most luxurious trains of Indian Railways, though they face competition from new low-cost airlines as the trains travel only 80 km/h. At least three corridors are under consideration for the introduction of high speed bullet trains to India. It is estimated that to modernise Indian Rail and bring it up to international standards, over US$200 billion in investments would be required.

Expansive and expensive plans are underway to upgrade stations, coaches, tracks, services, safety, and security. Initially, various upgrade and overhaul work will be performed at more than fifty stations, some of it by private contract. All meter gauge lines in the country will be converted to broad gauge. New stainless steel LHB design coaches, manufactured in India, are due to be introduced on all Rajdhani, Shatabdi, mail and express trains by 2011. These coaches will enhance the safety and riding comfort of passengers besides having more carrying capacity, and in time will replace thousands of old model coaches throughout Indian Railways. More durable and conforming polyurethane paint is now being used to enhance the quality of rakes and significantly reduce the cost of repainting. New manufacturing units will be set up to produce state-of-the-art locomotives and coaches.
As a start, the Delhi station is being upgraded with four new stations being built to ease the congestion. Railway authorities have invited private companies to modernise the Delhi station in partnership with the public sector. The renovation of Delhi station marks the start of government efforts to upgrade both the nation's railway stations and its routes.

The plan is to separate arrivals and departures areas on different levels. Tracks will be widened, enabling a switch to faster and bigger trains that can speed up the passenger flow. On a system-wide level, new track is being laid, tunnels blasted out of mountains, bridges and brand new stations being built, in remote parts of the country like the northeastern states and Kashmir. German, Chinese, and other foreign railway expertise are being pressed into service in IR's makeover story, but by the same token Indian Railways lends a helping hand to other countries' national railways.

Sanitation in trains and stations throughout the system is getting more attention with the introduction of eco-friendly, discharge-free green toilets developed by IIT Kanpur. This costly makeover is expected to take three years. Fire detection systems will be installed on trains in a phased manner, and new rodent-control and cleanliness procedures are also working their way into the many zones of IR.

Base kitchens and food services across the system are also slated for a makeover, while rail ticket booking through ATMs on select trains and through cellular phone SMS is being put in place. Channel music, TV screens showing the latest films, and optional menus from five-star hotels are being
introduced on the Rajdhani and Shatabdi Express. The National Institute of Design (NID) was roped in to spice up the upholstery and coach interiors of the two high-end trains to give them a corporate designer look. There is now competitive bidding to lease advertising space on railway buildings, stations and some trains. Significantly, several IT initiatives are being phased in to better handle ticketing, freight, rolling stock (wagons), terminals, and rail traffic, including the use of Global Positioning System (GPS) for train tracking in real time. Senior managers are undergoing advanced training at notable institutions overseas in order to better handle change management in the system. IR is changing compellingly for the better, and helping to power up a subcontinent that is growing phenomenally.

**National Rail Vikas Yojana:**

With a view to complete strategically important projects within a stipulated period of time, a non-budgetary investment initiative for the development of Railways has been launched. Under the scheme all the capacity bottlenecks in the critical sections of the railway network will be removed at an investment of Rs.15,000 crore over the next five years. These projects would include:

- Strengthening of the golden Quadrilateral to run more long-distance mail/express and freight trains at a higher speed of 100 kmph.
- Strengthening of rail connectivity to ports and development of multi-modal corridors to hinterland.
- Construction of four mega bridges – two over River Ganga, one over River Brahmaputra, and one over River Kosi.
New Steps towards Safety and Security:
Safety of 13 million passengers that Indian Railways serve every day is of paramount importance to the system. Over the years, apart from the regular safety norms followed, the network has taken a number of steps through innovative use of technology and stepped up training to its manpower to enhance safety standards. Constitution of Rs.17,000 crore non-lapsable Special Railway Safety Fund (SRSF) to replace the arrears of aging assets of Railways over the next six years has been a historical move in this direction.

A number of distressed bridges, old tracks, signaling system and other safety enhancement devices will be replaced during this period. As far as budget allocation for safety is concerned, Rs.1,400 crore was allocated in the revised estimate for the year 2001-02 and Rs.2,210 crore for the year 2002-2003. Extensive field trials of the Anti-Collision Device (ACD), indigenously developed by Konkan Railway, is going on and once deployed across the Zonal Railways, this innovative technology will help railways reduce accidents due to collision between trains.

Security of railway passengers is at present a shared responsibility of the Railway Protection Force (RPF) and the Government Reserve Police (GRP). Efforts are on to amend the Railway Act to give more powers to the RPF in ensuring security of passengers on trains and within Railway premises. Deployment of women police Force has been made for security and assistance of women passengers.
1) Improving Financial Health:
The financial position of Indian Railways has been slowly but steadily improving. Some of the highlights of the financial performance during 2001-02 include: improved operating ratio from 98.8 per cent to 96.6 per cent, savings in ordinary working expenses of Rs.1,487 crore, Depreciation Reserve Fund (DRF) balance goes up from Rs. 78.04 crore during March last year to Rs.632.99 crore during same time this year. Railways have established a new milestone in incremental freight loading during July this year by carrying 5.70 million tonnes of goods. Freight loading for the last financial year crossed the target and attained 492.31 million tonnes.

2) New Trends in Passenger Amenities:
To take care of the unreserved segment of the passengers, a new pilot project on computer based unreserved ticketing has been launched this year. Of the 13 million passengers served by the network every day, nearly 12 million are unreserved passengers. To cater to this huge segment, computer based ticketing systems has been launched for all stations in Delhi area and in due course throughout the country. With this, unreserved tickets can be issued even from locations other than the boarding station and will reduce crowds at booking offices and stations.

Indian Railway Catering and Tourism Corporation with the assistance of Centre for Railway Information Systems have launched On-line ticketing facility which can be accessed through website irctc.co.in. Computerized Reservation related enquiries about accommodation availability, passenger status, train schedule, train between pair of stations etc. have been made web enabled.
A pilot project for issuing monthly and quarterly season tickets through Automated Teller Machines (ATMs) has been launched in Mumbai this year and has been found very successful. Another pilot project for purchasing tickets including monthly and quarterly season tickets through Smart Card has also been launched.

Indian Railway Catering & Tourism Corporation (IRCTC) Internet based ticket booking has been launched by IRCTC in Delhi, Chennai, Bangalore, Mumbai and Calcutta this year.

Hygienic and air-conditioned food plazas having consumer-friendly ambience opened at Pune and Chennai and license for similar plazas awarded for 17 more locations. Railneer – packaged drinking water is to be made available from December this year. More than half a lakh tourists have availed the value added tour package programme launched by the Corporation.

3) Innovative Technologies by Konkan Railway:
Konkan Railway Corporation (KRC), the technological marvel of Indian Railways, has invented quite a few new technologies. Anti Collision Device (ACD), state-of-art indigenous technology of KRC is currently under-going intensive field trials and is capable of avoiding collision between trains. Sky bus metro is another innovative, economic and eco-friendly mass rapid transportation solution devised by Konkan Railway. Self Stabilizing Track (SST) devised by KRC, which is undergoing trials at present, will help Railways run the fastest train in the near future and will make tracks much more safe and sustainable.
4) **Private Sector Participation:**
The participation of both private and public sectors in developing rail infrastructure has gone up. A joint venture company was formed with Pipava Port authorities to provide broad gauge connectivity to Pipava Port. MoUs have been signed between Ministry of Railways and the State governments of Andhra Pradesh, Karnataka, Maharashtra, West Bengal, Tamil Nadu and Jharkhand in developing rail infrastructure in these States.

5) **Telecommunication:**
To give improved telecommunication systems on Railways, Optical Fibre based communication systems has been adopted and laying OFC has increased to 7,700 route kilometer this year. Rail Tel Corporation has been created to make a nationwide broadband multimedia network by laying optical Fibre cable along the railway tracks. This system will provide better operational and passenger amenities and additional revenue to Railways.

6) **New Technologies:**
India became the first developing country and the 5th country in the world to roll out the first indigenously built “state-of-the -art” high horse power three phase electric locomotive when the first such loco was flagged off from Chitranjan Locomotive Works (CLW). CLW has been achieving progressive indigenisation and the cost of locomotives has come down to the level of Rs.13.65 crore.

7) **Honors and Awards:**
Indian Railways achieved a number of recognitions and awards in sports, tourism sector and for excellence in operational matters. In the Common
Wealth Games in Manchester, the Indian team’s record performance has been mainly due to Railway team’s excellence in sports. Except one member the entire women’s Hockey team which bagged the gold medal belonged to Railways. Mohd Ali Qamar of Indian Railways has bagged gold medal for boxing and other participants from Railways helped India win medals in many a team events. A number of sportspersons from Railways were conferred with the coveted Arjuna Awards and other major sports awards.

Darjeeling Himalayan Railways attained the World Heritage Status from UNESCO. Fairy Queen, the oldest functioning steam engine in the world, which finds a place in the Guinness Book of World Records, got Heritage Award at the International Tourist Bureau, Berlin in March, 2000. On operational front, Delhi Main station entered the Guinness Book for having the world’s largest route relay interlocking system.

Social obligations and care for weaker sections Senior citizens, students, disabled persons etc. enjoy concessional benefits from Railways. New initiatives in this area during the last three years include reduction of age limits for special concession to senior women citizen from 65 to 60 years, blind and mentally challenged persons can now travel in AC classes on concessional rates. Free second class Monthly Season Tickets (MSTs) for school going children up to tenth standard for travel between home and school was also introduced.

8) Tie-Up with Foreign Railways:
Indian Railways is in constant touch with Railways across the world to bring in state-of-art facilities in its system. Towards this, a Memorandum of
Understanding was signed during the Eighth Session of the Indo-Austria Joint Economic Commission held in Vienna. This seeks to promote and deepen long-term infrastructure-specific cooperation between Indian and Austrian Railways to their mutual benefit.

A three-day International Conference of Union of Railways was organized by Indian Railways in New Delhi in which hundreds of delegates from various industries and Railways around the world participated.

9) Exclusive accommodation for ladies:
One compartment of the lowest class of accommodation is earmarked for ladies in every passenger carrying train. Some berths/Seats in sleeper class / second seats are also earmarked for ladies at the train originating station. Any male passenger found occupying or attempting to occupy such a carriage or compartment shall be liable to be prosecuted apart from being removed from the compartment. Boys under 12 years of age may travel in a ladies compartment with relatives or friends, Western India Travel.

10) For Senior Citizens:
From 1st September 2001 onwards, concession to senior citizens through PRS (Passenger Reservation System) shall be granted only on demand and not by default as at present. The demand for concession shall be made on Reservation Requisition form in the case of reserved tickets. In the case of tickets issued to senior citizens on concession, during journey the concerned passengers are instructed to carry some documentary proof showing their age or date of birth, issued by any Government Institution/Agency/Local Body. Like Identity card, Driving License, Passport, Educational certificate, certificate from Local
Bodies like Panchayat/Corporation/Municipality, or any other authentic and recognised document. This documentary proof of age should be produced if demanded by some Railway official during the journey.

1.5 Drawback of Indian Railways:

For as long as India has had trains, rail travel for most people has meant endless queues for tickets, filthy and overcrowded platforms and spine-crunching journeys on cramped wooden seats.

But travelling by train in India will never be the same again, according to plans announced by Lalu Prasad Yadav, the Minister of Railways. He pledged to replace all wooden benches with cushion-covered seats, to open 6,000 ticket machines over the next two years and even to equip ticket collectors with hand-held computers.

Tickets will be sold from petrol stations and bank machines, while railway stations will be spruced up in a “year of cleanliness”, Mr. Yadav said as he announced the railway budget for 2007-08.

Within a year 32 new trains will be introduced, including eight more Garib Raths (Poor Man’s Chariots) — the first Indian trains to be fully air-conditioned in all classes. The Railway Ministry will also begin a feasibility study for high-speed trains that can run at 300-350km/h (185-220mph).

All this, Mr. Yadav promised, while cutting the price of tickets by up to 8 per cent.
The railway network, which carries 15 million people a day, was once the only affordable form of long-distance transport, but now faces intense competition from buses, cars and budget airlines.

“The fact is that railways are modernising to survive,” said D. H. Pai Panandiker, president of the RPG Foundation, an economic think-tank. “With the improvement in roads and the cheapening of air travel, the railways are losing out. The idea here is to attract passengers away from road traffic rather than to help people.”

The Railway Ministry is also reported to be planning to introduce onboard entertainment and fast-food facilities, vending machines and cash machines in stations. Mr. Yadav’s other proposals included a 24-hour railway hotline, more lower-class coaches on trains and specially designed carriages for disabled people.

He also pledged to improve security by introducing more closed-circuit television cameras, metal detectors and sniffer dogs at stations and recruiting another 8,000 people to the railway police. Some critics were disappointed by the lack of further security measures given last week’s bomb attack on the Friendship Express to Pakistan, which killed 68 people.

Others cast doubts on the ministry’s ability to deliver its promises in a country where change within the state sector is painfully slow. But Mr. Yadav’s has an impressive track record.
When he took over Indian Railways in 2004, it was saddled with huge losses because of rock-bottom fares and a bloated workforce of nearly 1.6 million. Within a year he had dragged it into the black by freezing the payroll, leasing out advertising space, introducing competitive bidding for catering and converting trains to electricity.

Some of his ideas proved less successful — for instance, trying to ban soft drinks such as Coca-Cola and replace them with buttermilk. He also tried to ban plastic cups and replace them with handmade clay pots. But his overall strategy has been so successful that it is now being studied at Indian and foreign business schools, including Harvard. Mr. Yadav had announced in 2006-07 that the railways had made a profit of 200 billion rupees (£2.3 billion).

All aboard

- There are seven different classes, but few trains offer them all
- The highest is First AC, which costs about the same as an air ticket; the lowest is General, which has wooden seats
- There are 7,000 stations on the 40,000 mile network
- Tickets can be booked by mobile phone, SMS and on the internet
- A standard passenger train has 18 coaches — each designed to carry 18-72 people

Indian Railways E-Ticket:
The conception of e-ticketing is rising with the growing technology and fast moving world. Majority of the people today prefer e-tickets because it saves time that earlier people used to waste by standing in long queues and just a
print out can be used as a ticket. All you need to have is a printer and an identification proof. That single piece of paper can help you plan your journey comfortably. Even when you misplace the print out you can have another copy of the same without paying any additional charges for issue of a duplicate ticket. In case if you don’t have a printer you can always access the same from cyber cafes.

E Ticket is an electronic version of the conventional paper ticket and can be booked online 60 days in advance of the journey date. The passengers take a print out of the confirmed ticket and carry the same piece of paper and a photo identity proof when boarding the train. This ticket is treated as a valid authority that permits a passenger to enter the railway premises without requiring the regular railway ticket. The print out is a replacement of the ticket itself so if you forget the print out then you are charged a penalty of Rs 50.

To book an e-ticket, you need to first register yourself for free with the government website IRCTC. This website is the official site for online train booking and checking the status of the running trains as well as availability of the wait listed tickets. Not only reservation even cancellation can be made online.

1.6 New Reservation Rules in Indian Railways:

(1) Confirmed Ticket:-
Postponement of journey on confirmed tickets shall be allowed in the same or any higher class' by any subsequent train on the same or any subsequent day, for same or any longer destination, provided that the confirmed or RAC or waiting list accommodation is available in the train in which fresh reservation is required.
25% fare of already booked ticket is paid as cancellation charges, in case of tickets surrendered during working hours and within 24 hrs and 4 hours before schedule departure of the train in which originally booked. 50% fare of already booked ticket is paid as cancellation charges, in case of tickets surrendered during working hours and within 4 hours before schedule departure and up the maximum time limits mentioned in rule, after actual departure of the train in which originally booked.

(2) RAC and Waitlisted Tickets:
Postponement of journey on RAC and waitlisted tickets is allowed in same or higher class, by any subsequent train on the same or any subsequent day, for same or any longer destination, provided that the confirmed or RAC or waitlist accommodation is available in the train in which fresh reservation is required. Some clerical charge is paid.

(3) Preponement of Journey:
Preponement of journey on confirmed, RAC & waitlisted tickets shall be allowed in the same or any higher class, by any earlier train on the same day or any earlier day, for same or any longer destination, provided that the confirmed or RAC or waitlist list accommodation is available in the train in which fresh Reservation is required.

Refund on cancellations of modified ticket:
If the ticket, on which journey has been alerted under the above sub-rules, is cancelled, cancellation charges shall be payable as follows:-

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(1) Cancellation charge as would have been due if the ticket for original reservation had been cancelled at the time of postponement / preponement of journey.

(2) Cancellation charges due in respect of ticket for alerted reservation as if this alerted reservation is fresh reservation.

**Indian Railway Rules:**

- The Railway Administration reserves seats, berths, compartments, or carriage in accordance with the rules and conditions published in the Coaching Tariff. A passenger seeking reservation of berth or seats should purchase tickets from the Railway Reservation Offices/Authorized Travel Agency only.

- Advance reservations are made generally up to 60 days in advance for all classes and all trains. The period of advance reservation (ARP) is exclusive of the day of departure of the Indian trains.

- At intermediate stations where the train arrives on the following day, such reservations can be done more than 60 days in advance of date of journey from the intermediate station. ARP is in relation to the date of journey from train originating station. In case of some Inter-city day trains, the ARP is less.

- An individual can book only up to six passengers on one requisition form provided all passengers are for the same destination and for the same train.

- Only one requisition form is accepted from a person at one time. However, if onward/return journey are involved, 2 or 3 forms can be accepted for the same passengers.
Accommodation will not be reserved without purchase of necessary journey ticket. No reservation of accommodation will be made on provisional basis.

When berths are reserved for passengers, the intention is to provide sleeping accommodation between 9 PM to 6 AM. During 6 AM to 9 PM, the passengers concerned, if required make room for other passengers in compartment up to its carrying capacity.

Passengers are requested to quote PNR number which is printed on each ticket on the top left hand side for any enquiry or complaint relating to reservations.

Reservation ticket issued by the computerised system against pre-bought ticket must be accompanied by the journey tickets on train. Similarly journey cum reservation tickets bearing zero amount are not valid for journey unless accompanied by the valid authority to travel authorising issue of such tickets.

Allotment of accommodation is done by the computer as per pre-defined logic. Efforts are made to provide compact accommodation to persons booked under the same PNR on first come first served basis.

Departure time printed on the ticket is indicative for the guidance of the passengers. Passengers must ascertain correct timings from the Railway station on the day of journey. Such tickets are printed up to 60 days in advance. Any changes in timing after the issue of ticket can not be advised.
While every endeavor is made to advise changes in Time Table by due publicity, Railway Administration shall not be liable for any claim/compensation if a passenger misses a train on this account.

1.7 Turnaround Management in Indian Railways:
Indian railways were running in losses since years. It had been taken as granted that this Public Sector Unit can never be a profit making undertaking for Indian government. Until the second half of the 1990s, it had been generating a net surplus. Thereafter, it started posting increasing losses. But Lalu Prasad Yadav proved this wrong. He presented figures where Indian Railways made profit for year 2004-05. The Indian Railways, an industry that was heading towards bankruptcy three years ago when Railway Minister Lalu Prasad took over, now has an all-time high cash surplus of Rs. 13,600 crore, beating even their own budget estimates.

Unlike previous ministers, Mr. Yadav has looked upon Railways as a commercial enterprise and not a social welfare institution. He is a hard taskmaster and ensures his subordinates carry out the projects.

Sectors due to which Railways incurred Losses:

(1) Passenger Business:
This was one of the major sectors wherein the railways made losses. Overcrowding was the most widely faced problem with Indian Railways. In the holiday seasons or on long weekends, trains were usually packed more than their prescribed limit. Some passengers applying for the tickets were to be wait-listed as the number of berths was limited but the number of
passengers went on increasing. This resulted in non-confirmation of their tickets. Thus this indirectly had an impact on the earnings of the railways. According to the railway budget 2005-06 the estimated income which the Railways could have earned by solving this problem of passengers was around 200 crore. And the position was that 115 passenger trains were uneconomical, accounting for an annual loss of Rs. 434 crore. So it can be imagined how much did the Railways lose.

This sector also had an impact on then current scenario. There were many malpractices going on in this segment. Ticket-less travel, which resulted in large losses for the Indian Railways, was also an additional problem faced. Railways lost a major part of income from these sources.

(2) Reduction in the share of Transport Market:

In the recent years, the share of service sector in the Gross Domestic Product (GDP) was growing while that of agriculture and manufacturing was declining. This had an adverse effect on the railway resources. In Indian Railways 89% of the freight traffic was contributed by eight major commodities, viz., coal, fertilizer, Cement, petroleum products, food grains, finished steel, iron ore and raw material to steel plants which constituted the core sector of the economy.

Over the years there had been considerable decline in the Railways’ share of transfers in the cases of cement, petroleum and iron and steel mainly on account of the Railways’ competitive weakness in the face of challenges from other modes of transport, viz., road, pipeline, coastal shipping etc. The change
in the profile of the economy had also contributed to the decline in the Railways’ share of the transport market.

(3) Freight Segment:
The competition from trucks, which offered cheaper rates, saw a decrease in freight traffic in the year 2004-05. Most of its freight earnings came from such rakes carrying bulk goods such as coal, cement, food grains and iron ore. The Indian Railways raised freight rates so much that it effectively killed the goose that laid the golden egg. In keeping its poor passengers happy, Indian Railways permanently lost long and medium-haul bulk freight that ought to have been its natural comparative advantage.

(4) Scrap Disposal:
The Railways incurred losses of Rs. 35.7 crore on account of leakages of revenue in scrap disposal, which was higher by Rs. one crore registered during 2003. Such losses were worth Rs. 34.7 crore in 2003 and Rs. 23 crores in 2002.

(5) Un-remunerative Projects:
There was an escalation of the number of un-remunerative projects beginning in the 1980s, and accelerating in the 1990s. More seriously, the adoption of the unit-gauge project involved large investments that seriously harmed the finances of Indian Railways, without any obvious short or medium-term returns.
(6) Increase in wages and salaries:
This was another sector where the railways incurred losses. There was a massive increase in wages and salaries without corresponding growth in productivity. The staff costs of Indian Railways accounted for around 50 per cent of the organization’s gross traffic receipts. In the year 2004-05, the wage and pension liability stood at almost Rs 20,000 crores which was more than double of what it was in 1996-97.

(7) Pension Fund:
The pension situation was even more alarming. Since 1974, there was no actuarial assessment of the Railway Pension Fund, and it was grossly under-funded.

As the support from the general exchequer had declined, the level of market borrowing increased sharply. Financial condition of Indian Railways was so bad that pension fund and the depreciations reserve fund of about Rs.4000 crores had been spent to defray normal cost. Indian Railways had no reserves to fall back upon. This was another problem which the railways were facing and incurred losses.

(8) Social Service Obligations:
The Indian Railways was not compensated for the social service obligations it discharged. It had been estimated that social service burden to the organization amounted to about Rs.3, 282 crores in 2000-2001. The main components of losses were:
- Essential commodities carried below cost,
- Suburban services and some other coaching services,
- Operation of uneconomic branch lines, &
- New lines completed with negative rates of return.

1.8 Indian Railways Marching Towards Huge Profit:

1. Freight Sector

Indian Railway carries a huge variety of goods ranging from mineral ores, agricultural produce, petroleum, milk and vehicles. Ports and major urban areas have their own dedicated freight lines and yards. Many important freight stops have dedicated platforms and independent lines.

Indian Railways makes 70% of its revenues and most of its profits from the freight sector, and uses these profits to cross-subsidize the loss-making passenger sector. However, competition from trucks, which offer cheaper rates, has seen a decrease in freight traffic in recent years. Since the 1990s, Indian Railways has switched from small consignments to larger container movement, which has helped speed up its operations. Most of its freight earnings come from such rakes carrying bulk goods such as coal, cement, food grains and iron ore.

(a) Decision made in Budget:

1) No change in rates:

The Budgets did not make any changes in the freight rates as it concentrated more on satisfying its customers. On the other hand, it was proposed to make historic changes in the goods tariff to make it simple, rational and transparent.
2) Enhancing the quality of freight trains:
To bring about a qualitative improvement in freight train examination and wagons maintenance practices, infrastructural facilities have been upgraded at freight train examination centers. With this, detentions during examination of freight trains would be reduced, quality of train examinations would be improved and safety would be enhanced.

3) Double stack container freight trains:
Capacity constraints on the existing routes necessitated introduction of double stack container freight trains. It was proposed to introduce double stack container trains in the next two years on one of the identified routes connecting North India with Gujarat ports, based on cost economics.

4) Improvement in wagon turns round time:
To ensure continued improvements in the wagon turn round time adequate fund allocation would be made to terminal improvement and traffic facility works. Information technology as a management tool would be extensively used in freight transportation, to enable a keen watch to be kept on the rakes, effective pipeline management and terminal management.

5) Increase in wagon production & locomotive production:
Considering the pace of growth of our freight traffic, expansion of the production capacity of wagons by 25% in the near future was essential. Similarly, it was proposed to increase the production of electric locomotives by 17% and diesel locomotives by 5%. Production of high power locomotives was also being increased to ensure optimum utilization of line capacity.
6) Meeting global demand:
With the globalization of the Indian economy and spurt in imports and exports, the container traffic was expected to grow exponentially. It had been assessed that the growth would be of about 15%. In order to meet the growing demand for container trains, organizations other than Container Corporation of India would also be considered for movement of container traffic.

7) Fixation of the minimum weight:
Minimum chargeable weight of the wagon was prescribed keeping in view the nature of the commodity to be loaded. For lightweight items this was considerably less than the carrying capacity of the wagon. This procedure for fixation of the minimum weight condition for different commodities was not only cumbersome but had also been causing dissatisfaction to the rail users. Therefore, for all commodities, freight would be charged based upon the carrying capacity of wagons.

Schemes Introduced
1) Engine-on-Load:
(EOL) scheme was announced in the Budget 2003-04. Here the train engine waits during loading and unloading operations to ensure faster release and better availability of wagons. After consultation with customers, the terms and conditions have been further liberalized. The permissible free time for loading has been increased from three hours to four hours for bulk commodities and from five hours to six hours for bagged consignments.
2) Terminal Incentive Scheme:
The Budget proposed to introduce a cash incentive scheme for such freight customers who helped the railways in reducing the terminal detention through investments in infrastructure for mechanized loading and unloading, round-the-clock working and improvements in yard layout.

3) Electronic Payment Gateway:
The Budget stated that the pilot project for setting up Electronic Payment Gateway for freight, which was proposed during the Railway Budget 04-05, had been implemented for Badarpur Thermal Power Station in January’ 2005.

4) Wagon Investment Scheme:
In order to encourage public-private partnership in procurement of wagons to meet the anticipated incremental freight traffic in the coming years, it has been decided to introduce an attractive new scheme called “Wagon Investment Scheme”.

5) Non-peak season incremental freight discount scheme:
The demand for freight transportation dips from 1\textsuperscript{st} July to 31\textsuperscript{st} October on account of monsoon. Hence, during this period, under non-peak season incremental freight discount scheme, freight rebate of 15\% will be offered for incremental freight revenues of over Rs.5 cr. in a month and 10 \% if the incremental earning was less than Rs.5 cr. This rebate will be applicable for all commodities except coal, minerals and items with classification below 120.
6) Empty flow Direction Freight Discount Scheme:
The truck rate for Delhi to Guwahati was considerably higher than the rate for the return trip whereas the railways charge the same rate in both directions. It was seen that 40 out of 100 freight trains return empty. The additional expenditure in loading freight in the empty flow direction trains was quite low. Hence, a heavy discount on incremental freight in the empty flow direction was announced. For distances beyond 700 kms, the discount will be 30% during non-peak season and 20% in the peak season.

7) Loyalty Discount Scheme:
To encourage the transportation of cement and iron & steel by rail, Loyalty Discount Scheme was announced. Under this scheme, during the non-peak season, if over 90% of the production of any steel or cement factory were transported by rail, a discount of 1% in freight would be given. The discount will be half percent if the share of rail transportation was above 50% but less than 90% of the total production. This discount will be applicable on the transportation of finished products only. The discount will not be given for the transportation of raw materials being used in these industries.

8) Long-term freight discount scheme:
Merchants want to make transportation arrangement for goods on a long-term basis. Hence, IR has empowered zonal railway administrations to offer long-term freight discount to attract new customers and new freight traffic. Under this scheme, zonal railway administration will be able to offer a discount of up to 20% during non-peak season and up to 10% in the peak season, over the normal rates, for a period of three years. For loading in empty flow direction,
the discount would be up to 20% and 30% during peak season and non-peak season, respectively.

9) **Terminal Incentive Engine-on-load Scheme:**
With a view to bring down the wagon turn round time; a new Terminal Incentive cum Engine-on-load Scheme has been formulated. Customers who fulfill the conditions laid down in the scheme and invest in their terminals so as to bring down the loading and unloading time, and complete loading/unloading in lesser time, will qualify for 5% rebate in the first year. Over the next ten years the rebate will be given at a diminishing rate and would be 1% from the fifth year onwards.

10) **Mini Rake and 2-point rake scheme:**
Considering the popularity of mini rake and two-point rake scheme, this facility will now be made available both in the peak and non-peak season. During the non-peak season, mini-rakes, 2-point rakes will be made available without any additional charge; whereas during the peak season, for commodities up to class 130, the freight rates charged for commodities loaded in such rakes will be 5% more than the rate for block rake trains.

11) **Freight Forwarder Scheme:**
For goods booked under this scheme during non-peak season, freight will be charged under Class LR2 in empty flow direction and under Class 100 in the loaded direction. During peak season, the freight will be charged under Classes 100 and 130 respectively.
2. Passenger Sector

Indian Railways operates 8,702 passenger trains and transports around five billion annually across twenty-seven states and three union territories (Delhi, Pondicherry and Chandigarh).

The passenger division is the most preferred form of long distance transport in most of the country. A standard passenger train consists of eighteen coaches, but some popular trains can have up to twenty-four coaches. Coaches are designed to accommodate anywhere from eighteen to seventy-two passengers, but may actually accommodate many more during the holiday seasons and on busy routes.

Each coach has different accommodation class; the most popular being the sleeper class. Up to nine of these type coaches are usually coupled. Air-conditioned coaches are also attached, and a standard train may have between three to five air-conditioned coaches.

Decisions taken in Budget

1) Using the freight strategy:

The Railways had succeeded in increasing profits in the freight segment by adopting the “increase volumes- reduce unit costs” strategy. It was decided to adopt the same strategy in the passenger business too, and work towards cutting losses. It was decided to cut down losses in the coaching services by about Rs. 1000 corer in the coming year and by 50% in the next three years by increasing the number of coaches and occupancy of trains, reducing travel time and reducing losses in the catering and parcel segments.
2) **Safety Initiatives:**

The Indian Railways was trying its best to reduce the number of accidents by strengthening its infrastructure. This has resulted in consequential train accidents to come down to 325 in 2003-04 from 473 in 2000-01. Also 1280 unmanned level crossings are planned to be manned over a period of time. The projects and the plans carried out by the Railways have reduced accident rates even further. With the completion of safety works there has been a remarkable reduction in railway accidents and the number of consequential train’s accidents has come down from 473 in 2001 to 234.

3) **Security:**

The Railway Protection Force (RPF) was deploying escort parties for about 1000-passenger trains every day. Access control and security at about 600 stations was being provided through the RPF. In order to provide security to women passengers, the Railways are providing special squads in compartments reserved for women in the suburban rail area also special arrangements are being made for the security of women. In view of the important role of the RPF in the security of passengers, the modernization of this force was being given special attention. On Republic Day, His Excellency, the President of India, honored 7 RPF employees for exceptional work with bravery medals.

4) **Cleaner Trains:**

To improve cleanliness at stations and in trains, General Managers of all the zonal railways have been directed to take special steps. A nationwide cleanliness drive has also been launched. In order to infuse a spirit of excellence, it has been decided to hold inter-divisional competition in which
the Headquarters’ Committees comprising of senior officers of concerned departments will evaluate all the railway divisions. The best divisions will be given the Cleanliness Efficiency Shield. Best stations will also be selected and awarded. Where the cleanliness level was found to be unsatisfactory, responsibility will be fixed on the concerned officers and employees. A nationwide cleanliness drive has been launched - spirit of competition infused. Disposable "kulhars" will be made available, use of plastic cups to be discouraged. Development of an environment friendly coach toilet discharge system taken up. Upholstery/linen used on Railways will henceforth be of handloom/khadi variety.

5) Book stalls:
As per new bookstall policy, allotment at 'B', 'C'& 'D' class stations open only to unemployed graduates and their associations; 25% reservation to under privileged section. At 'A' class stations, a two packet tender system introduced.

Passenger Amenities

1) Catering:
Railways are making all out efforts to improve the catering services by serving cleaner, healthier and tastier food to the passengers both at stations and on trains. Railways will also endeavor to make available wholesome milk and milk products at all catering outlets towards which a beginning has been made by serving “mattha” and “lassi”. With a view to pro vide pure and wholesome products to the passengers and to give employment opportunities to dairy producers, as far as possible, these will be purchased from dairy units of co-operative sector. As far as other eatables are concerned, with a view to
increase the earnings from the catering contracts, complete transparency and competitiveness will be ensured in the award of contracts.

2) Reduction in prices:
The fares of AC First Class and AC Second Class are more than the fare for general class by over 14 times and 7 times, respectively. This has blunted our competitiveness in air-conditioned classes, which was having an adverse effect on the occupancy of these classes. Hence, it was proposed to rationalize the passenger tariff structure as has been done for the freight tariff structure. In the new structure, the fares of AC First and AC Second Class will be 11.5 times and 6.5 times the Second Class fare, respectively. With this, there will be a reduction of about 18% in the fares of AC-I and 10% in that of AC-II. Sustained rationalization measures over the next three years will sharpen the competitive edge of the Railways.

3) Reducing journey times:
The Railways decided to re-work the all-India timetable de-novo, that is, with Zero base in the current year. This work was proceeding on high priority and for this, computerized simulation techniques, as necessary, will be employed. As a result of the review conducted so far, it has been decided to convert more than 200 mail/express trains to super fast mail/express category by increasing their speeds. With the preparation of a new time table on zero bases, the journey time of a majority of the Shatabdis, Rajdhanis will reduce and certain Mail/Express trains was likely to decrease by up to four hours.
4) **Increasing bogies:**

Spare coaches made available by increased train speeds and better utilisation of rake links are being used for augmenting the number of coaches in popular passenger carrying trains. The number of coaches in about 190 popular passenger-carrying trains was being increased up to 23-24 coaches. With the augmentation of these trains by about 500 coaches waitlisted passengers can get confirmed reservation thereby enabling Railways to earn Rs. 200 cr additionally every year.

5) **Strategy to shrink queues at booking counters:**

More than 10,000 tickets are being issued everyday through the Internet. The facility of I-ticket and e-ticket has been made available on all mail and express trains. The charges livable on issue of e-tickets have been reduced by Rs. 20 per ticket in higher classes and by Rs. 15 per ticket in sleeper class. Passengers can now buy I-ticket and e-ticket through Rail Travel Service Agents also. The extension of this facility will help reduce queues at PRS counters.

6) **“Village-on-Wheels” – Tourist train for Common Man:**

Indian Railways have been running trains for up to exists for common people particularly from small towns and villages. It was proposed to run tourist special trains of ordinary sleeper class coaches which will run to a pre-determined schedule. These trains will collect the tourists from a region and take them to important places of religious and historical importance at affordable cost. Apart from promoting tourism this will enable the common man to travel around the country easily.
7) Special Measures for Women commuters:
Deployment of Lady Ticket Checking Squads on some sections of zonal Railways has proved helpful in infusing a sense of security among the female passengers traveling by trains. Encouraged by the results of this experimental step taken by Indian Railways, we have decided to extend the deployment of such lady squads over all the zonal Railways wherever it was required.

Services provided:

(1) **Computerized Train Enquiry System:**
Passengers often complain that telephone lines pertaining to railway enquiry remain always busy. An attempt has, therefore, been made to expand its reach up to village level by modernizing the train enquiry system and opening call centers at Patna. Under this initiative, people from any corner of Bihar can enquire about arrival and departure of trains, reservation status, fare, concessions, etc., by dialing a universal telephone number 139 at local call rates. To ensure that the lines do not remain busy, depending upon the need, 200 to 500 lines is used in a call center so that a large number of people can access the facility of enquiry simultaneously. Considering the unprecedented success of this initiative, it will be implemented throughout the country by the end of so that not only urban but also rural people are also able to get the desired information instantly by dialing a universal number 139 at local call rates.

(2) **Round the clock Internet booking:**
The facility of booking tickets through Internet, which was started for cell-phones in the current year, will soon be available on landline phones also. Presently booking of rail tickets on the Internet was restricted from 8
a.m. to 10 p.m. With effect from 15th March 2005 this facility was made available from 4.00 a.m. to 11.30 p.m. without a break.

(3) Reservation status in advance:
At present, waitlisted passengers do not know their status till the preparation of chart, which was normally done only about four hours before train departure. This time was considered too short for a person to finalize his journey plans. Therefore, continuous updating of the waiting list will now be made possible through suitable modifications in the passenger reservation system.

(4) Display of vacant berth position:
Along with the reservation chart, it was proposed to display vacancy position charts in all reserved coaches and on the platform so that waitlisted passengers can have information about vacant berths in various legs of journeys, which will further enable transparency in their allotment. Wherever possible, this data would be linked to the current booking counters, so that vacant berths can be released.

(5) Expansion of IT for customer satisfaction:
It was proposed to launch a pilot scheme for Mumbai suburban passengers to renew their season tickets on Internet and have it home-delivered on the lines of Internet ticketing for reserved category. This will provide relief for a large number of season ticket holders and ease congestion at the booking counters.
(6) **Computer based unreserved ticketing:**
To take care of the unreserved segment of the passengers, a new pilot project on computer based unreserved ticketing has been launched this year. Of the 13 million passengers served by the network every day, nearly 12 million are unreserved passengers. To cater to this huge segment, computer based ticketing systems has been launched for all stations in Delhi area and in due course throughout the country. With this, unreserved tickets can be issued even from locations other than the boarding station and will reduce crowds at booking offices and stations.

Indian Railway Catering and Tourism Corporation with the assistance of Centre for Railway Information Systems have launched On-line ticketing facility which can be accessed through website irctc.co.in. Computerized reservation facilities were added at 245 new locations. At present these facilities are available at 758 locations in the country covering about 96 per cent of the total workload of passenger reservation. Computerized Reservation related enquiries about accommodation availability, passenger status, train schedule, train between pair of stations etc. have been made web enabled.

**IT Measures:**

(1) **Claim Offices being computerized:**
Railways have embarked on a programme of computerization of ‘Claim Offices’ so as to provide on line information to claimants about the status of claims. This will help the customers to find unconnected consignments and will also be a powerful tool in reducing the duplication of claims. Computerized registration of claims in Zonal Railway Headquarters has already been started from April 2004 and it was expected that full
computerization of claim offices will be completed during the current financial year.

(2) Online help:
In order to help the rail users, the rules & procedures in connection with compensation claims in respect of both “accident” and “loss/damage of goods” have been incorporated in the Indian Railway’s website.

(3) Unreserved Ticketing System being extended:
About 92 percent of the railway passengers travel without reservation in unreserved coaches in trains in the country. To help these railway passengers, Indian Railways have developed Unreserved Ticketing System (UTS). This system facilitates a passenger to buy a traveling ticket for any station from any of the selected railway stations three days in advance of the required date of journey. This system was proposed to be extended progressively on all zonal railways.

(4) Coaching Operations Information System (COIS):
To improve the passenger traffic operations, the Coaching Stock Management module (covering passenger coaches and parcel vans) of Coaching Operation Information System (COIS) was proposed to be implemented this year. Punctuality module for better train monitoring and analysis of delay has already been implemented last year.
Other Sectors

(1) Publicity:
Currently, railways earns about Rs 40 crore from banners, hoardings and on-platform advertising from around 1,000 A-class stations. Railway officials say that this was much less than the actual advertising potential of the railways. This under-recovery was also attributed to a lack of advertising policy. Therefore through this initiative, railways were aiming at generating business worth Rs 1,500 crore annually.

"The plan was to outsource the entire ad-revenue generation to these agencies in return for a fixed annual fee, for a period of five years. The agencies, will be given a free hand to generate ad-revenue in association with brands, as per their choice," as told by a senior Railway official. The agencies would be free to use all available space, including bogeys, wagons, space available on the platforms and even the smaller stations that fall on the way.

(2) Land Utilization:
This authority will, through public-private participation, develop surplus land adjoining railway stations and goods sheds for constructing warehouses and logistics parks. It would also generate additional resources for the development of railways. In the coming years they propose, with the help of this Authority, to develop metro stations into world class modern stations and extend passenger amenities through construction of food plazas, shopping malls, etc. on vacant land. In the year 2005-06, all efforts will be made to complete the process relating to sanction of an action plan for converting New Delhi Railway Station into such a modern world-class station.
(3) Hotels on Railways Land:
The Indian Railway Catering and Tourism Corporation (IRCTC) have plans to ask hotel chains to set up budget hotels on surplus railway land. The properties will be leased out, but the railways will control tariffs for more than two-thirds of the rooms. IRCTC Mumbai has asked Central and Western Railways to offer land for the project in Mumbai and neighboring cities. The first budget hotel may come up at Mumbai Central on a plot of 3,500 square meters. The railways had also offered land to IRCTC for budget hotels in Pune, Nagpur, Baroda and Ahmedabad.

India's largest hotel group, Indian Hotels Co. Ltd., was interested in joining Indian Railways in a proposed chain of budget hotels to be built on railway land, a company official said on Tuesday.

The first budget hotels would be built in New Delhi as part of efforts to prepare the capital for the 2010 Commonwealth Games that will be held in the city. In yet another important development, Parliament had passed Rail Land Development Authority Bill to commercially utilize Railways 43,000 hectare vacant land. So far, 61 major sites involving an area of 180 hectares of the Railway land having commercial potential were identified, out of these nine sites with the value of Rs 21 crore (Rs 210 million) have been finalized.

(4) Scrap Disposal:
Indian Railways sell approximately 10 lakh tonnes of metallic scrap every year. Honorable members have, from time to time, expressed concern about malpractices in such scrap sales. I have now decided to explore the possibility of in-house utilization of this scrap by recycling it, instead of selling it to
outside parties, subject to a detailed examination of the logistics, cost benefit analysis etc

1.9 Motivation of Railway Employees:
The implementations of the plans and the projects, proposed by the management have to be implemented. This activity can be possible only by the efforts of the employees of the Railways, right from the workers to the managers. Thus motivation plays an important role in this case and keeping this in mind the Railway minister has given this aspect due importance. These are some of the services put forward for the employees:

(1) Facilities for licensed Porters:
In order to further improve the lot of the licensed porters (coolies), Railways have provided shelters at stations where they can take rest. It was proposed that these shelters will be improved by providing funds to the extent of Rs. 5 crore. Even though the porters working on the railway stations are not railway servants, the facility of one set of privilege pass for the licensed porter for self only was permitted from the station of working to any station on Indian Railways and back in second/sleeper class.

(2) Corporate Welfare Plan:
Railways propose to prepare a Corporate Welfare Plan to pay special attention towards maintenance and improvement of staff quarters with particular emphasis on substandard quarters lacking basic amenities. For this purpose a ten-year plan will be formulated in consultation with the staff representatives.
(3) Staff Welfare:
With their continuous hard work, 15-lakh railway men have effected a historic turn around in the financial position of the railways. In his New Year message to railway men, railway minister had assured the employees that to the extent possible their expectations would be met in the current year. For the valuable contribution made by the railway men to the turnaround of the Indian Railways, it has been proposed to increase the contribution to Staff Benefit Fund for the next year by almost nine times from the present level of Rs. 26 per employee to Rs. 226 per employee. To expand the facilities in staff quarters and staff colonies, the allocation was proposed to be enhanced significantly.

Due to non-availability of community halls in railway colonies, non-gazettes employees face many difficulties for occasions such as marriages etc. For the facility of employees they have decided to construct 100 community halls. The running staff was required to stay in running rooms, which are often far from their headquarters. Away from their homes, the running staff faces difficulties in arranging their food at odd hours. Therefore, based upon consensus achieved after consultations with all concerned staff federations food at nominal rates will be made available to running staff during duty hours.
(4) Achievement in sports:
The Railway employees take keen interest in sports and all their achievements have been well rewarded and also well recognized. These are some of their achievements, which were recognized by the Railway minister.
It was a matter of great pride that Railway sportspersons have given a splendid performance in the Afro Asian Games – 2003 held at Hyderabad. Besides Indian Railways volleyball, basketball and golf teams won first ever Gold, Silver and Bronze medals respectively in World Railway Championships of 2003-04.

Indian Railways Chess team won the Gold Medal in the World Railway USIC Chess Championship held at Piestany (Slovakia) in November, 2004. During the current year Ms. Rachel Thomas, Indian Railway Skydiver has been honored with prestigious Padmashri Award for adventurous sport. Five Railway sportspersons have been honored with Arjuna Award for their sports achievements and at the National level, Indian Railways sportspersons won 16 National titles in different games.

Railway Sports Promotion Board organized an international World Railway Badminton Championship in November 2005 at New Delhi. Indian Railways emerged as champion in this competition. In the Commonwealth Wrestling Championship 2005 held at Cape Town, South Africa, Indian Railway wrestlers won 6 Gold, 3 Silver and 3 Bronze medals. Apart from this, Indian Railway sportspersons have, this year, won nine national titles in athletics, basketball, diving, handball (Women), Kabaddi (Women) and power lifting.
1.10 Recommendations by Rail Users

1. Suggestions on Information Sharing & Publicity:
The information on the Passenger Information site should be made available for intermediate stations also. An interactive timetable should be provided on the Passenger Information site. Indian Railways should introduce its Time Table on CD-ROMs. Information about Railway Guest houses/hotels/Retiring Rooms should be included on the websites. Trains at glance must print all those Stations in the Time Tables at which trains have stoppage, so as to project correct picture of stations falling enroute as well about its stoppages at the all the stations falling enroute.

Latest information of status of various trains should be given on websites, like if trains between Mumbai and Ahmedabad are disturbed, let the running information be available online. What is problem, which trains are affected, when likely to be resumed? Information’s for refund / cancellations etc.

2. Suggestions on Increasing Earnings:
A huge wealth of scrap iron in the form of old tracks sleepers etc. is laying by the sides of the railway tracks all over the country and in the yards of thousands of railway stations. There is a need to start a drive to pick up this scrap iron. This could prove a good resource for the railways. Regular ticket checking should be done to eradicate the regular ticket less travelers so that the revenue will increase.

Around 9.5 lakhs of passengers reserve their tickets each day. If one enters a ticket-booking centre, one would find that the reservation slips, which are available free of cost, are indiscrimately thrown here and there. We suggest
that a sum of Re.0/25 may be collected for each reservation form, so that, apart from bringing in revenue to the railways, the wastage by the commuters could well be avoided. A/C First class can effectively compete with air services if the service quality can be improved.

The following should be part of the improvements:
1. Improve the cabin decor with automatic renewal of berth covers and carpets.
2. Have a new design for A/C First class cabins with bath between every 2 cabins: entry from outside only.
3. Remove the washbasin inside the cabins.
4. Provide following: Bottled water, one general and one business newspaper, one small pack of paper towels, and one small special design bag with toothpaste, toothbrush and similar items.
5. Catering must be as in airlines. Keep a card in each cabin to complement or complain on attendant and facilities. These should be collected and a reference number provided to each filled in card.

3. Suggestions on Coaches:
In Shatabdi train there is always a problem with the luggage as there is not enough space to keep the luggage. The bogies should be redesigned in such a way that there is a small cabin in each coach for big pieces of luggage for which the staff should be responsible.
Easily expiable dustbins should be provided in each compartment of the train coaches. This will help in:
   a) Maintaining cleanliness within the train coaches
   b) Maintaining the areas along which the IR operates.
During rains, invariably rainwater enters the bogies through doors, windows etc. The railways should provide a small gutter above the windows so that the rain water can get accumulated and flow through the same. The railways should provide illuminated seat numbers with arrows pointing towards cabin or side birth at the ceiling of the passage so that the passenger can reach directly to his cabin without disturbing passengers of other cabins.

4. Suggestions on On-Board Services:
Vast improvements in the canteen services should be made. The coffee, which is served inside the trains, is not up to the mark. They should lease this service to the Coffee Board.

The rights of passengers should be pasted on the walls of coaches so that passengers can claim services from attendant and conductors. There should be speakers in every compartment to announce the route, next station, the message saying which station is about to come etc.

5. Suggestions on Safety:
Both the ends of train should be equipped with a SENSOR SYSTEM. This sensor helps to detect any other train at a distance of 15 kms or less. Each Railway region should have 2 to 3 pilot test engines with 10 coaches to test the track.

6. Suggestions on Stations:
With globalization setting in, the Airports have become Business centres. The Railway Stations should be converted into Business Centers, Executive centres, Hotels, Communication centers etc.
The job of maintaining the toilets in railway stations and in trains could be given to private contractors. Also, increase the number of pay and use toilets in all the train stations. The fee for using the toilet can be high if the toilets are in good condition. Say 5 Rs/ per usage."

7. Suggestions on Rail Tourism:
Most tourists including foreigners do not like dark glasses in AC bogies & instead want to enjoy a countryside rail sightseeing with fresh air & little more comfort of sitting with less no. of people in little more space( 6 instead of 8), at much lesser price than 3AC class. Even many Indians can't afford 3AC travel with family or on business.

8. Suggestions on Trains:
Indian Railways should have some open trains (like open flat carriages of goods train) where people can drive on to these carriages and travel in their cars especially to destinations of up to 5/6 hours journey. Business people can travel to nearby destinations together with their car which they can use during the day and travel back with the car in the train. This will reduce a lot of traffic on the highways and the businessman can use the car during his stay which is a big convenience and saves time. This will also save a lot of fuel for our country.

Large cities e.g. Mumbai have several destinations such as Poona, Nasik, Ahmednagar, Satara, Mahad, Surat, and Baroda etc. which can be reached in 4 to 5 hours. With up to 4/5 persons in a car the journey would also not be too expensive. A businessman could in his car go to such destinations in a "drive-
train in the morning and return in the night without feeling the journey to be hectic. Such trains could have only 1/2 stops on the way and fares could be charged per car.

1.11 SWOT Analysis

Strengths:

- The Indian Railways is considered as the ‘Biggest Company’ in the world in terms of employee strength.
- The train ‘Palace on Wheels’ is a major part of income to the Indian Railways.
- The network of railways is very huge. i.e. There are many trains which connect different cities and countries like, Pakistan and Bangladesh.
- The trains are luxurious and affordable to common man.
- The management of railways is very good. This can be told because on the very next day of the ‘Mumbai Bomb Blast’ the trains were running at their scheduled time.

Weaknesses:

- The major weakness of the Indian Railways is the corruption within the department, which restricts the growth of it.
- Accidents take place because of the lack of accident proof magnetic wheels in all trains.
- Lack of safety i.e. in terms of robbery, woman safety.
- Poor infrastructure.
- Delayed trains.
- Typical government employees. i.e. The lazy employees.
Opportunities:
The long-term plan of the ‘METRO’ in a commercial city like Mumbai is the greatest opportunity.

- Developing the network of railways and providing people with more luxurious and comfortable trains for long distances.
- Development of railways even in small cities.
- Can be partially privatized and the government can make more profit through this privatization.
- Tie-Up with Foreign Railways

Threats:

- The low cost airlines seem to be a major threat to the Indian Railways and vice versa.
- Increasing costs.
- Improvement of other infrastructure like roadways has lead to division of freight between various sectors.
- Could be taken over by airlines because they are safer to travel.

1.12 Future of Indian Railways

The main thrust areas for Railway Budget 2006-07 were capacity augmentation, enhancing revenues through significant growth in volumes by adopting various aggressive marketing initiatives in freight and coaching business, technological upgradation, cutting down losses and route wise focused investment strategy. So, to achieve these goals, railways have initiated several measures including adoption of suitable technology for interlocking and signaling system, up gradation standards of track and rolling stock, modernization of maintenance practices, replacement of over-aged
assets, provision of Anti-Collision Devices and up gradation of training aide like simulators. Following are some of their plans which are implemented and on which they are working upon:

1. **Rolling out low-cost AC train:**
   Railway Minister Lalu Prasad has announced the introduction of a special train in this railway budget. This train will have a modified version of sleeper class AC bogies. However, its fare is likely to be less than that of the AC-3 tier, which caters to the needs of even the common people. Presently, all efforts are underway to introduce these air-conditioned trains as soon as possible, which will be called as Garib Rath.

2. **Train tickets on ATMs and Call Centers:**
   Railway tickets will now be available in ATMs and platform tickets on mobiles. Many integrated call centers will be set up to give information on arrival and departure of trains, availability of seats, fare-facilities at many busy railway stations and for registration of complaints. Two such call centers are functioning at Patna and Bangalore.

3. **Railways play the loyalty card:**
   With airlines offering tickets at train fares and Indians flying like never before, the worry lines just keep increasing for the Indian Railways. To hold back passengers the Railways are taking a page out of the airline book and offering something similar to a frequent-flier programme. Passengers are being offered a loyalty card that will give them a 4 to 10 per cent discount on AC two tier and AC First-class fares.
4. Railways to launch SMS-based ticket booking service:
Railway tickets can soon be booked using short messaging service. Buoyed by the response to its earlier service of ticket bookings through the Internet, Indian Railway Catering and Tourism Corporation (IRCTC) - which manages Railways' Internet booking service platform - plans to launch SMS-based ticket booking service. Currently, it is possible to enquire ticket availability using text messages, but not possible to book tickets. Moreover, one can also book tickets using voice-based services through the cell phone - that is the user is required to speak in order to book a ticket.

5. Deccan Odyssey - Maharashtra's Palace on Wheels goes online:
Booking a trip aboard luxury train Deccan Odyssey will now be possible online. The Maharashtra Tourism Development Corporation (MTDC) plans to launch an Internet booking facility for the train soon. The corporation also plans to appoint public relations agencies abroad to popularize the train.

6. Watch TV, surf the Net aboard trains now:
Surfing the Internet, making basic phone calls and watching cable TV on moving trains will soon be a reality. Railtel, the broadband subsidiary of Indian Railways, will set up kiosks along with private entrepreneurs at different stations.

7. Railways mull bonus points for frequent travelers:
With the airlines offering concession for domestic or international traveling, the Indian Railways is not the one to lag behind. To ward off increasing competition from airlines, Indian Railways is all set to come out with a frequent buyers programme in August.
8. Railway Booking through Reliance India Mobile:
Reliance Infocom, in association with Indian Railway Catering and Tourism Corporation Ltd. (IRCTC), has launched Railway Ticket Booking service through Reliance India Mobile (RIM) in 120 cities across all 28 states and union territories of India.

9. Karnataka to get its own POW:
A luxury tourist train, 'Palace on Wheels', on the lines of the one in Rajasthan, had been proposed in Karnataka, the Minister for Tourism, informed the Legislative Council recently.

10. Exporting locomotives:
In its international reach, Indian Railway's public sector undertaking RITES and IRCON International Ltd are exploring overseas markets for exporting more locomotives. RITES have supplied five locomotives to Vietnam and three to Bangladesh and four locomotives to Sudan 2002-05. IRCON International Ltd has temporarily exported meter gauge locomotives to Malaysia on lease-cum-maintenance basis during the last three years. Presently IRCON has 25 locomotives working in Malaysia.

11. Commercializing land:
So far, 61 major sites involving an area of 180 hectares of the Railway land having commercial potential are identified, out of these nine sites with the value of Rs. 21 crore (Rs. 210 million) have been finalized for commercial purpose. Railways are also planning to set up an exclusive coal freight-corridor to meet the projected demand from the sector. The plan, still at the
conceptual stage will be in addition to the already approved Rs.60, 000 crore (Rs 600 billion) rail freight corridors aimed at boosting railway earnings.

12. Expanding the Network:
While the year saw Nilgiri Mountain Railway inscribed by the UNESCO as World Heritage Sites, Railways has also proposed similar status for Kalka-Simla Railway. The Railways are planning for significant expansion in rail capacity network, which would include two dedicated freight corridors from JNPT to Tughlaqabad and Ludhiana to Somnagar with further extension to Kolkata in due course.

13. Up-gradation Programme:
In another major initiative to mop up resources, the Railway Minister had announced that any holder of a wait-listed ticket could be allotted accommodation in a higher class if seats remain vacant in the next higher class. A sleeper class wait-listed passenger could get a confirmation in 3rd AC or a 3rd AC wait-listed passenger could get a confirmation in 2nd AC and so on and need not to pay any extra money for it.

14. Discounts on Freight of empty flow directions:
In the area of freight traffic, it is proposed to have a dynamic pricing policy, heavy discount on incremental freight in empty flow direction, loyalty discount scheme and long term freight discount scheme etc.

15. New Tatkal scheme:
Tickets can now be booked three days in advance; unlike the 24-hour before and passengers don't have to travel with ID cards. Opening up a new window
for passenger convenience, the Indian Railways is tying up with the Department of Posts to offer tickets for suburban as well as long distance travel through post offices. While the Railways will reduce pressure on its booking counters, the postal department would get a new stream of income through ticket sales.

**16. Metro Rail Project:**
Prime Minister Manmohan Singh laid the foundation stone for Rs19,500 crore Mumbai Metro Rail Project on Wednesday. Work on the ambitious mass rapid transit system (MRTS) will begin in October 2006 and is scheduled to be completed by 2010.

The project, once completed, will ease traffic congestion in the metropolis. The Maharashtra government and private sector partner Reliance Dhirubhai Ambani Group (RADAG) will share the costs of the project. The private partner will hold a majority stake of 74 per cent in the project.

The Mumbai metro rail system, which will run partly on elevated tracks and partly underground, will drastically reduce traveling time in Mumbai and the suburbs. It would also address the rising air pollution problem in the city. This is the third such system in the country, after Calcutta and Delhi.

The Mumbai metro railway system will cover a total distance of 146km and link Mumbai city with its suburbs. The first phase will link Versova in the west to Ghatkopar in the east forming an 11km corridor with 12 new stations. The launching of the MRTS project is seen as a step towards making Mumbai a world-class financial hub.
17. Railway stations:
The railway stations in the future may as well change in terms of infrastructure. Plans are, to make the major railway stations a place with all the amenities like a cyber cafe, a mall, and all the possible things customers would want.

18. Freight corridor:
With freight traffic in the country expected to grow at 18-20 per cent a year, the Railways desperately need new lines, especially on the busy Golden Quadrilateral route. So, on the drawing board is a dedicated freight corridor that connects these metros after winding its way through important mineral belts and touching major ports. The complete project is still taking shape, but officials involved in its working are talking of a total capital cost of Rs 65,000 crore.

In the first phase, the Delhi-Mumbai and the Delhi-Howrah (from Ludhiana to Son Nagar) lines will be laid out at a total cost of Rs 22,400 crore and are scheduled to be completed in five to seven years. Freight traffic on the Delhi Howrah route mainly comprises minerals like coal and iron ore.

The Railways has also announced surveys for four other links on the Golden Quadrilateral: Delhi-Chennai, Howrah-Chennai, Howrah-Mumbai and Mumbai-Chennai.

The proposed new freight corridor will be for freight trains only. As a result, their average speed is expected to raise several folds from the current 25 km per hour — Railways officials say the objective is to match the 150 km per hour that goods trains in China do.