## Indian Railways

This article is about the organisation. For general information on railways in India, see Rail transport in India.

Indian Railways (reporting mark IR / भт. ₹) is an Indian state-owned enterprise, owned and operated by the Government of India through the Ministry of Railways. It is one of the world's largest railway networks comprising 115,000km(71,457.687 miles)of track over a route of 65,436 km (40,660 mi) and 7,172 stations. [4] In 2013–14, IR carried 8.425 billion passengers annually or more than 23 million passengers daily (roughly half of which were suburban passengers) and 1050.18 million tons of freight in the year. [5] In 2013–2014 Indian Railways had revenues of ₹1441.67 billion (US\$23 billion) which consists of ₹940.0 billion (US\$15 billion) from freight and ₹375.0 billion (US\$5.9 billion) from passengers tickets. [6]

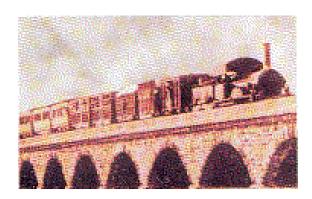
Railways were first introduced to India in the year 1853 from Bombay to Thane. In 1951 the systems were nationalised as one unit, the Indian Railways, becoming one of the largest networks in the world. IR operates both long distance and suburban rail systems on a multigauge network of broad, metre and narrow gauges. It also owns locomotive and coach production facilities at several places in India and are assigned codes identifying their gauge, kind of power and type of operation. Its operations cover twenty nine states and seven union territories and also provides limited international services to Nepal, Bangladesh and Pakistan.

Indian Railways is the world's seventh largest commercial or utility employer, by number of employees, with over 1.307 million employees. As for rolling stock, IR holds over 239,281 Freight Wagons, 62,924 Passenger Coaches and 9,013 Locomotives (43 steam, 5,345 diesel and 4,568 electric locomotives).<sup>[7]</sup> The trains have a 5 digit numbering system and runs 12,617 passenger trains and 7421 freight trains daily.<sup>[8]</sup> 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.<sup>[9]</sup> Since 1960, almost all electrified sections on IR use 25,000 Volt AC traction through overhead catenary delivery.

### 1 History

Main article: History of rail transport in India

The history of rail transport in India began in the midnineteenth century. The core of the pressure for building Railways In India came from London. In 1848, there



India's first train run between Bombay and Thane

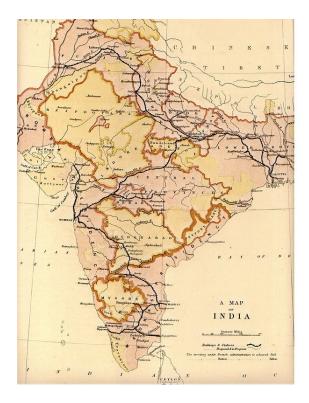


The B.B. & C.I. Railway Head Offices, 1905



Indian Railways headquarters, Delhi

was not a single kilometre of railway line in India. The country's first railway, built by the Great Indian Peninsula Railway (GIPR), opened in 1853, between Bombay and Thane. [10] A British engineer, Robert Maitland Brereton, was responsible for the expansion of the railways from 1857 onwards. The Allahabad-Jabalpur branch line of the East Indian Railway had been opened in June 1867.



Map of the completed and planned railway lines in India in 1871, thirteen years after the end of Company rule.

Brereton was responsible for linking this with the GIPR, resulting in a combined network of 6,400 km (4,000 mi). Hence it became possible to travel directly from Bombay to Calcutta. This route was officially opened on 7 March 1870 and it was part of the inspiration for French writer Jules Verne's book Around the World in Eighty Days. At the opening ceremony, the Viceroy Lord Mayo concluded that "it was thought desirable that, if possible, at the earliest possible moment, the whole country should be covered with a network of lines in a uniform system". [11]

By 1875, about £95 million were invested by British companies in India guaranteed railways. [12] By 1880 the network had a route mileage of about 14,500 km (9,000 mi), mostly radiating inward from the three major port cities of Bombay, Madras and Calcutta. By 1895, India had started building its own locomotives, and in 1896, sent engineers and locomotives to help build the Uganda Railways.

In 1900, the GIPR became a government owned company. The network spread to the modern day states of Ahom Kingdom, Rajputhana and Madras Presidency and soon various autonomous kingdoms began to have their own rail systems. In 1905, an early Railway Board was constituted, but the powers were formally vested under Lord Curzon. [13] It served under the Department of Commerce and Industry and had a government railway official serving as chairman, and a railway manager from England and an agent of one of the company railways as the other two members. For the first time in its history, the Railways began to make a profit.

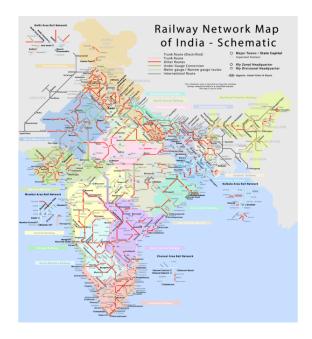
In 1907 almost all the rail companies were taken over by the government. The following year, the first electric locomotive made its appearance. With the arrival of World War I, the railways were used to meet the needs of the British outside India. With the end of the war, the railways were in a state of disrepair and collapse.

In 1920, with the network having expanded to 61,220 km (38,040 mi), a need for central management was mooted by Sir William Acworth. Based on the East India Railway Committee chaired by Acworth, the government took over the management of the Railways and detached the finances of the Railways from other governmental revenues.

The period between 1920 and 1929, was a period of economic boom; there were 41,000 mi (66,000 km) of railway lines serving the country; the railways represented a capital value of some 687 million sterling; and they carried over 620 million passengers and approximately 90 million tons of goods each year. Following the Great Depression, the railways suffered economically for the next eight years. The Second World War severely crippled the railways. Starting 1939, about 40% of the rolling stock including locomotives and coaches was taken to the Middle East, the railways workshops were converted to ammunitions workshops and many railway tracks were dismantled to help the Allies in the war. By 1946, all rail systems had been taken over by the government.

On 23 April 2014, Indian Railways introduced a mobile app system to track train schedules. [15]

### 2 Organisational structure



Indian Railway zonal map.

Main article: Indian Railway organisational structure

### 2.1 Railway zones

Indian Railways is divided into several zones, which are further sub-divided into divisions. The number of zones in Indian Railways increased from six to eight in 1951, nine in 1952 and sixteen in 2003. [16][17] Each zonal railway is made up of a certain number of divisions, each having a divisional headquarters. There are a total of sixty-eight divisions. [18][19]

Each of the seventeen zones is headed by a general manager 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 and telecommunication, accounts, personnel, operating, commercial, security and safety branches report to the respective Divisional Manager and are in charge of operation and maintenance of assets. Further down the hierarchy tree are the station masters who control individual stations and the train movement through the track territory under their stations' administration.

#### Zonal railway details



A pantograph on an IR train.

### 2.2 Recruitment and training

Main article: Centralised Training Institutes of the Indian Railways

Staff are classified into gazetted (Group 'A' and 'B') and non-gazetted (Group 'C' and 'D') employees. [22] The recruitment of Group 'A' gazetted employees is carried out by the Union Public Service Commission through exams conducted by it. [23] The recruitment to Group 'C' and 'D' employees on the Indian Railways is done through 20 Railway Recruitment Boards and Railway Recruitment Cells which are controlled by the Railway Recruitment

Control Board (RRCB).<sup>[24]</sup> The training of all cadres is entrusted and shared between six centralised training institutes.



Sapt Kranti Express waiting for departure for Anand Vihar Terminal(T) (ANVT) at Muzaffarpur Junction (MFP)

#### 2.3 Production units



CLW made WAP-5 30022(CLW made WAP-5 locos don't have fluted body shell) rests at Bhopal



WDP4 Diesel Locomotive Baaz which is now at New Jalpaiguri

Indian Railways manufactures much of its rolling stock and heavy engineering components at its six manufactur4 3 ROLLING STOCK



Sapt Kranti Express WDP-4B at 130 kmph.

ing plants, called Production Units, which are managed directly by the Ministry. Popular rolling stock builders such as CLW and DLW for electric and diesel locomotives; ICF and RCF for passenger coaches are Production Units of Indian Railways. Over the years, Indian Railways has not only achieved self-sufficiency in production of rolling stock in the country but also exported rolling stock to other countries. Each of these production units is headed by a general manager, who also reports directly to the Railway Board. The production units are:-

#### 2.4 Other subsidiaries

There also exist independent organisations under the control of the Railway Board for electrification, modernisation, research and design and training of officers, each of which is headed by an officer of the rank of general manager. A number of Public Sector Undertakings, which perform railway-related functions ranging from consultancy to ticketing, are also under the administrative control of the Ministry of railways.

There are fourteen public undertakings under the administrative control of the Ministry of Railways, [25] viz.

- Bharat Wagon and Engineering Co. Ltd. (BWEL)
- Centre for Railway Information Systems (CRIS)<sup>[26]</sup>
- Container Corporation of India Limited (CON-COR)
- Dedicated Freight Corridor Corporation of India Limited (DFCCIL)
- Indian Railway Catering and Tourism Corporation Limited (IRCTC)
- Indian Railway Construction (IRCON) International Limited
- Indian Railway Finance Corporation Limited (IRFC)

- Konkan Railway Corporation Limited (KRCL)
- Mumbai Railway Vikas Corporation (MRVC)
- Railtel Corporation of India Limited (Rail Tel)
- Rail India Technical and Economic Services Limited (RITES)
- Rail Vikas Nigam Limited (RVNL)
- High Speed Rail Corporation of India (HSRC)
- Burn Standard Company
- Braithwaite and Co. Ltd

Delhi Metro Rail Corporation Limited (DMRC), that has constructed and operates Delhi Metro network, is an independent organisation not connected to the Indian Railways. Similar metro rail corporations in other cities (except Kolkata Metro in Kolkata) are not connected to the Indian Railways.

### 3 Rolling stock

#### 3.1 Locomotives

Main article: Locomotives in India

Locomotives in India consist of electric and diesel lo-



Two historical steam engines at water refilling station at Agra station

comotives. Biodiesel locomotives are also being used on experimental basis.<sup>[27]</sup> Steam locomotives are no longer used, except in heritage trains. In India, locomotives are classified according to their track gauge, motive power, the work they are suited for and their power or model number. The class name includes this information about the locomotive. It comprises 4 or 5 letters. The first letter denotes the track gauge. The second letter denotes their motive power (Diesel or Alternating - on Electric) and the third letter denotes the kind of traffic for which they are suited (goods, passenger, Multi or shunting). The fourth letter used to denote locomotives' chronological



A Beyer Garratt 6594 Engine seen at the National Rail Museum

model number. However, from 2002 a new classification scheme has been adopted. Under this system, for **newer diesel** locomotives, the fourth letter will denote their horsepower range. Electric locomotives don't come under this scheme and even all diesel locos are not covered. For them this letter denotes their model number as usual.

A locomotive may sometimes have a fifth letter in its name which generally denotes a technical variant or subclass or subtype. This fifth letter indicates some smaller variation in the basic model or series, perhaps different motors, or a different manufacturer. With the new scheme for classifying diesel locomotives (as mentioned above) the fifth item is a letter that further refines the horsepower indication in 100 hp increments: 'A' for 100 hp, 'B' for 200 hp, 'C' for 300 hp, etc. So in this scheme, a WDM-3A refers to a 3100 hp loco, while a WDM-3D would be a 3400 hp loco and WDM-3F would be 3600 hp loco.

Note: This classification system does **not** apply to steam locomotives in India as they have become non-functional now. They retained their original class names such as M class or WP class.

Diesel Locomotives are now fitted with Auxiliary Power Units which saves nearly 88% of Fuel during the idle time when train is not running. [28]

### 3.2 Goods wagons or freight cars

The number of freight car or goods wagons was 205,596 on 31 March 1951 and reached the maximum number 405,183 on 31 March 1980 after which it started declining and was 239,321 on 31 March 2012. The number is far less than the requirement and the Indian Railways keeps losing freight traffic to road. Indian Railways carried 93 million tonnes of goods in 1950–51 and it increased to 1010 million tonnes in 2012–13. [29]

However, its share in goods traffic is much lower than road traffic. In 1951, its share was 65% and the share of road was 35%. Now the shares have been reversed and the share of railways has declined to 30% and the share of

road has increased to 70%.

### 3.3 Passenger coaches

Indian railways has several types of passenger coaches.

Electric Multiple Unit (EMU) coaches are used for suburban traffic in large cities – mainly Mumbai, Chennai, Delhi, Kolkata, Pune, Hyderabad and Bangalore. These coaches numbered 7,793 on 31 March 2012. They have second class and first class seating accommodation.

Passenger coaches numbered 46,722 on 31 March 2012. Other coaches (luggage coach, parcel van, guard's coach, mail coach, etc.) numbered 6,560 on 31 March 2012.

### 4 Freight

Indian Railways earns about 70% of its revenues from freight traffic (Rs. 686.2 billion from freight and Rs. 304.6 billion from passengers in 2011–12). Most of its profits come from transporting freight, and this makes up for losses on passenger traffic. It deliberately keeps its passenger fares low and cross-subsidises the loss-making passenger traffic with the profit-making freight traffic.

Since the 1990s, Indian Railways has stopped singlewagon consignments and provides only full rake freight trains

### 4.1 Wagon types

Wagon types include:[30]

- BOXNHL
- BOBYN

### 5 Technical details

### 5.1 Track and gauge

Indian railways uses four gauges, the 1,676 mm (5 ft 6 in) broad gauge which is wider than the 1,435 mm (4 ft 8  $^{1}/_{2}$  in) standard gauge; the 1,000 mm (3 ft 3  $^{3}/_{8}$  in) metre gauge; and two narrow gauges, 762 mm (2 ft 6 in) and 610 mm (2 ft). Track sections are rated for speeds ranging from 75 to 160 km/h (47 to 99 mph).

The total length of track used by Indian Railways is about 115,000 km (71,000 mi) while the total route length of the network is 65,000 km (40,000 mi). [31] About 24,891 km (15,467 mi) or 38% of the route-kilometre was electrified as on 31 March 2014. [32]

6 5 TECHNICAL DETAILS



Narrow Gauge Train at Rajim, Chhattisgarh

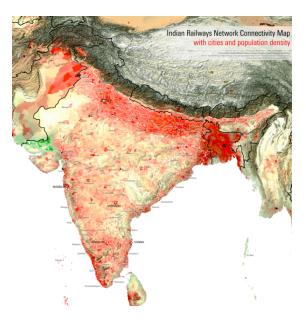


Indian gauge is the predominant gauge used by Indian Railways.

Broad gauge is the predominant gauge used by Indian Railways. Indian broad gauge—1,676 mm (5 ft 6 in)— is the most widely used gauge in India with 105,000 km (65,000 mi) of track length (91% of entire track length of all the gauges) and 56,000 km (35,000 mi) of route-kilometre (86% of entire route-kilometre of all the gauges).

In some regions with less traffic, the metre gauge (1,000 mm (3 ft 3 % in)) is common, although the Unigauge project is in progress to convert all tracks to broad gauge. The metre gauge has about 8,000 km (5,000 mi) of track length (7% of entire track length of all the gauges) and 7,000 km (4,300 mi) of route-kilometre  $(10\% \text{ of entire route-kilometre of all the gauges})}.$ 

The Narrow gauges are present on a few routes, lying in hilly terrains and in some erstwhile private railways (on cost considerations), which are usually difficult to convert to broad gauge. Narrow gauges have 2,000 route-kilometre. The Kalka-Shimla Railway, the Kangra Valley Railway and the Darjeeling Himalayan Railway are three notable hill lines that use narrow gauge, but the Nilgiri Mountain Railway is a metre gauge track. [33] These four rail lines will not be converted under the Unigauge project.



Map of Indian Railways network with population density

The share of broad gauge in the total route-kilometre has been steadily rising, increasing from 47% (25,258 route-km) in 1951 to 86% in 2012 whereas the share of metre gauge has declined from 45% (24,185 route-km) to 10% in the same period and the share of narrow gauges has decreased from 8% to 3%. About 24,891 route-km of Indian railways is electrified.

Sleepers (ties) are made up of prestressed concrete, or steel or cast iron posts, though teak sleepers are still in use on a few older lines. The prestressed concrete sleeper is in wide use today. Metal sleepers were extensively used before the advent of concrete sleepers. Indian Railways divides the country into four zones on the basis of the range of track temperature. The greatest temperature variations occur in Rajasthan.

### 5.2 Research and development

Indian Railways have a full-fledged organisation known as Research Designs and Standards Organisation (RDSO), located at Lucknow for all research, designs and standardisation tasks.

In August 2013, Indian Railways entered into a partnership with Indian Institute of Technology (Madras) to develop technology to tap solar energy for lighting and airconditioning in the coaches. This would significantly reduce the fossil fuel dependency for Indian Railways.<sup>[34]</sup>

Recently it ingeniously developed and tested the Improved Automated Fire Alarm System in Rajdhani Express Trains. This System would now be applied to AC coaches of all regular trains.<sup>[35]</sup>

# 6 Railway links to adjacent countries

See also: Rail transport in India § International links

Existing rail links:

- Nepal Break-of-gauge Gauge conversion under uni-gauge project
- Pakistan same Broad Gauge. Thar Express to Karachi and the more famous Samjhauta Express international train from Lahore, Pakistan to Amritsar (Attari).
- Bangladesh Same Broad Gauge. The Maitri Express between Dhaka and Kolkata started in April 2008 using the Gede-Darsana route, in addition to a Freight Train service from Singhabad and Petrapole in India to Rohanpur and Benapole in Bangladesh. A second passenger link between Agartala, India and Akhaura Upazila, Bangladesh was approved by the Government of Bangladesh and India in September 2011. [36]

Under construction / Proposed links:

- Bhutan railways under construction Same gauge
- Myanmar Manipur to Myanmar (under construction)
- Vietnam On 9 April 2010, Former Union Minister of India, Shashi Tharoor announced that the central government is considering a rail link from Manipur to Vietnam via Myanmar.<sup>[37]</sup>
- Thailand possible if Burma Railway is rebuilt. [38]

### 7 Types of passenger services

Trains are classified by their average speed.<sup>[39]</sup> A faster train has fewer stops ("halts") than a slower one and usually caters to long-distance travel.

### 8 Accommodation classes

Main article: Indian Railways coaching stock

Indian Railways has several classes of travel with or without airconditioning. A train may have just one or many classes of travel. Slow passenger trains have only unreserved seating class whereas Rajdhani, Duronto, Shatabdi, garib rath and yuva trains have only airconditioned classes. The fares for all classes are different



Air-conditioned Chair Car (CC) coaches in an Shatabdi Express.

with unreserved seating class being the cheapest. The fare of Rajdhani, Duronto and Shatabdi trains includes food served in the train but the fare for other trains does not include food that has to be bought separately. In long-distance trains a pantry car is usually included and food is served at the berth or seat itself. Luxury trains such as Palace on Wheels have separate dining cars but these trains cost as much as or more than a five-star hotel room.

A standard passenger rake generally has four unreserved (also called "general") compartments, two at the front and two at the end, of which one may be exclusively for ladies. The exact number of other coaches varies according to the demand and the route. A luggage compartment can also exist at the front or the back. In some mail trains a separate mail coach is attached. Lavatories are communal and feature both the Indian style as well as the Western style.

The following table lists the classes in operation. A train may not have all these classes.



Seen here is the Mumbai Rajdhani Express. Rajdhanis are longdistance high-speed and high-priority trains connecting major state capitals with New Delhi

At the rear of the train is a special compartment known as the guard's cabin. It is fitted with a transceiver and is where the guard usually gives the all clear signal before



Seen here is the Secunderabad Yeshwanthpur Garib-Rath Express. Garib-Rath's are low cost A/c trains



Interior of a First Class(1A) compartment in the Rajdhani Express



Interior of an air-conditioned Chair Car coach(CC) in an Jan Shatabdi Express.

the train departs.

### 9 UNESCO World Heritage Sites

There are two UNESCO World Heritage Sites on Indian Railways. – The Chatrapati Shivaji Terminus<sup>[42]</sup> and the Mountain Railways of India. The latter consists of



Inside a 3-tier AC Compartment of the Dakshin Express



A typical sleeper class coach

three separate railway lines located in different parts of India:  $^{[43]}$ 



A tight loop (Agony Point) on the Darjeeling Himalayan Railway in West Bengal

- Darjeeling Himalayan Railway, a narrow gauge railway in West Bengal.
- Nilgiri Mountain Railway, a 1,000 mm (3 ft 3 <sup>3</sup>/<sub>8</sub> in) metre gauge railway in the Nilgiri Hills in Tamil Nadu.

 Kalka-Shimla Railway, a narrow gauge railway in the Shivalik mountains in Himachal Pradesh. In 2003 the railway was featured in the Guinness Book of World Records for offering the steepest rise in altitude in the space of 96 kilometre. [44]

### 10 Notable trains

### 10.1 Tourist trains

- Palace on Wheels is a specially designed luxury tourist train service, frequently hauled by a steam locomotive, for promoting tourism in Rajasthan. The train has a 7 nights & 8 days itinerary, it departs from New Delhi (Day 1), and covers Jaipur (Day 2), Sawai Madhopur and Chittaurgarh (Day 3), Udaipur (Day 4), Jaisalmer (Day 5), Jodhpur (Day 6), Bharatpur and Agra (Day 7), return to Delhi (Day 8). [45]
- Royal Rajasthan on Wheels a luxury tourist train service covers various tourist destinations in Rajasthan. The train takes tourists on a 7-day/8-night tour through Rajasthan. The train starts from New Delhi's Safdarjung railway station (Day 1), and has stops at Jodhpur (Day 2), Udaipur and Chittaurgarh (Day 3), Ranthambore National Park and Jaipur (Day 4), Khajuraho (Day 5), Varanasi and Sarnath (Day 6), Agra (Day 7) and back to Delhi (Day 8).
- Maharaja Express a luxury train operated by IRCTC runs on five circuits<sup>[47]</sup> covering more than 12 destinations across North-West and Central India, mainly centered around Rajasthan between the months of October to April.
- Deccan Odyssey luxury tourist train service covers various tourist destinations in Maharashtra and Goa. The 7 Nights / 8 Days tour starts from Mumbai (Day 1) and covers Jaigad Fort, Ganapatipule and Ratnagiri (Day 2), Sindhudurg, Tarkarli and Sawantwadi (Day 3), Goa (Day 4), Kolhapur and Pune (Day 5), Aurangabad and Ellora Caves (Day 6), Ajanta Caves and Nashik (Day 7), and back to Mumbai (Day 8). [48]
- The Golden Chariot luxury train runs on two circuits Pride of the South<sup>[49]</sup> and Splendor of the South. <sup>[50]</sup>
- Mahaparinirvan Express an a/c train service also known as Buddhist Circuit Train which is run by IRCTC to attract Buddhist pilgrims. The 7 nights/8 Days tour starts from New Delhi (Day 1) and covers Bodh Gaya (Day 2), Rajgir and Nalanda (Day 3), Varanasi and Sarnath (Day 4), Kushinagar and Lumbini (Day 5 and 6), Sravasti (Day 7), Taj Mahal (Agra) (Day 8) before returning to New Delhi on (Day 8).

#### 10.2 Other trains

- 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 18 February 2006; it was earlier closed down after the 1965 Indo-Pak war.
- Lifeline Express is a special train popularly known as the "Hospital-on-Wheels" which provides health-care to the rural areas. This train has a carriage that serves as an operating room, a second one which serves as a storeroom and an additional two that serve as a patient ward. The train travels around the country, staying at a location for about two months before moving elsewhere.



A view of the Pamban Railway Bridge that links Rameshwaram to the mainland

- Fairy Queen is the oldest operating locomotive in the world today, though it is operated only for specials between Delhi and Alwar. John Bull, a locomotive older than Fairy Queen, operated in 1981 commemorating its 150th anniversary. Gorakhpur railway station also has the distinction of being the world's longest railway platform at 4,483 ft (1,366 m). 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. [52] The Mumbai–Pune Deccan Queen has the oldest running dining car in IR.
- Vivek Express, between Dibrugarh and Kanyakumari, has the longest run in terms of distance and time on Indian Railways network. It covers 4,286 km (2,663 mi) in about 82 hours and 30 minutes.
- *Bhopal Shatabdi Express* is the fastest train in India today having a maximum speed of 160 km/h (99

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mph) on the Faridabad–Agra section. The fastest speed attained by any train is 184 km/h (114 mph) in 2000 during test runs.

• Double-decker AC trains have been introduced in India. The first double decker train was Pune-Mumbai Sinhagad express plying between Pune and Mumbai<sup>[53]</sup> while the first double-decker AC train in the Indian Railways was introduced in November 2010, running between the Dhanbad and Howrah stations having 10 coaches and 2 power cars. <sup>[54]</sup> On 16 April 2013, Indian Railways celebrated its 160 years of nationwide connectivity with a transportation of 23 million passengers in a day. <sup>[55]</sup>

### 11 Problems and issues

Indian Railways is cash strapped and reported a loss of 30,000 crores in the passenger segment for the year ending March 2014. Operating Ratio, a key metric used by Indian railways to gauge financial health, deteriorated to 93.5% in the same year. Railways carry a social obligation of over 20,000 crores (\$3.5bn). The loss per passengerKM increased to 23 paise by the end of March 2014. Indian Railways is left with a surplus cash of just INR 690crores (\$115mn) by the end of March 2014. [56]

It is estimated that over 5 lakh crores (about \$85 bn at 2014 exchange rates) is required to complete the ongoing projects alone. Railways is consistently losing market share to other modes of transport both in Freight and Passenger Segment.<sup>[57]</sup>

New railway line projects are often announced during the Railway Budget annually without securing additional funding for them. In the last 10 years, 99 New Line projects worth 60,000 crore were sanctioned out of which only one project is complete till date. In fact, there are 4 projects that are as old as 30 years, but are still not complete for one reason or another. [8]

Sanjay Dina Patil a member of the Lok Sabha recently accused that additional tracks, height of platforms are still a problem and rise in tickets, goods, monthly passes has created an alarming situation where common man is troubled.<sup>[58]</sup>

### 12 See also

- High-speed rail in India for the currently planned Diamond Quadrilateral high speed rail project
- Kolkata Metro Railway
- List of railway stations in India
- List of named passenger trains of India
- List of longest train services in India

- List of countries by rail transport network size
- All India Station Masters' Association (AISMA)
- Bilaspur-Mandi-Leh Railway
- Northeast Frontier Railway zone

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