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History of Railway, DFCCIL

Source- Wikipedia and Indian Railways Website.

Indian Railways is a statutory body under the ownership of the Ministry of Railways, Government of India that operates India's national railway system. It manages the fourth largest national railway system in the world by size, with a total route length of 68,043 km. running track length of 102,831 km and track length of 128,305 km as of 31 March 2022. 58,812 km of all the gauge routes are electrified with 25 kV 50 Hz AC electric traction as of 1 April 2023.

In 2020, Indian Railways carried 808.6 crore (8.086 billion) passengers and in 2022, Railways transported 1418.1 million tonnes of freight. It runs 13,169 passenger trains daily, on both long-distance and suburban routes, covering 7,325 stations across India. Mail or Express trains, the most common types of trains, run at an average speed of 50.6 km/h. Suburban EMUs run at an average speed of 37.5 km/h. Ordinary passenger trains (incl. mixed) run at an average speed of 33.5 km/h (20.8 mph). The maximum speed of passenger trains varies, with the Vande Bharat Express running at a peak speed of 180 km/h.

In the freight segment, IR runs 8,479 trains daily. The average speed of freight trains is around 42.2 km/h. The maximum speed of freight trains varies from 60–75 km/h depending on their axle load with 'container special' trains running at a peak speed of 100 km/h

As of March 2022, Indian Railways' rolling stock consisted of 3,18,196 freight wagons, 84,863 passenger coaches and 13,215 locomotives. IR owns locomotive and coach-production facilities at several locations in India. It had 1.38 Million employees as of March 2020, making it the world's tenth-largest employer. The government has committed to electrifying India's entire rail network by 2023–24, and become a "net zero (carbon emissions) railway" by 2030.

Indian Railways Headquarters: **New Delhi, India**

Railway Minister: **Ashwini Vaishnav**

Railway Board Chairman & CEO: **Jaya Varma Sinha**

She is the first woman to be appointed to this Apex post of Indian Railways.

Founded: **8 May 1945**

Subsidiary companies:

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Indian Railways is a major shareholder in 16 public sector undertakings (PSU) and other organizations that are related to rail transport in India. Notable among the list are:

Financing, construction and project implementation:

- Indian Railway Finance Corporation (IRFC)
- RITES Ltd
- Indian Railway Construction Corporation (IRCON)
- Mumbai Rail Vikas Corporation (MRVC) (51%)
- Rail Vikas Nigam Limited (RVNL)

Land and station development:

- Rail Land Development Authority (RLDA)
- Indian Railway Stations Development Corporation (IRSDC)

Rail infrastructure:

- Dedicated Freight Corridor Corporation of India Limited (DFCCIL)
- Pipavav Railway Corporation Ltd (PRCL)

Passenger and freight train operations:

- Konkan Railway Corporation (KRCL)
- Container Corporation of India (CONCOR)

IT and communications:

- Centre for Railway Information Systems (CRIS)
- RailTel Corporation of India (RCIL)

Catering and tourism:

- Indian Railway Catering and Tourism Corporation (IRCTC)

Locomotives:

By 1990s, steam locomotives were phased out and electric and diesel locomotives, along with a few CNG (compressed natural gas) locomotives are used.[43] Steam locomotives are used only in heritage trains. Locomotives in India are classified by gauge, motive power, the work they are suited for, and their power or model number. Their four- or five-letter class name includes this information. The first letter denotes the track gauge, the second their motive power (diesel or electric), and the third their suitable traffic (goods, passenger, multi or shunting). The fourth

letter denoted the locomotive's chronological model number, but in 2002, a new classification was adopted in which the fourth letter in newer diesel locomotives indicate horsepower range.

A locomotive may have a fifth letter in its name, denoting a technical variant, subclass, or sub-type (a variation in the basic model (or series) or a different motor or manufacturer). In the new diesel-locomotive classification, the fifth letter refines the horsepower in 100-hp increments: A for 100 hp, B for 200 hp, C for 300 hp and so on. In this classification, a WDM-3A is a 3100 hp, a WDM-3D a 3400 hp and a WDM-3F a 3600 hp locomotive. Diesel locomotives are fitted with auxiliary power units, which saves almost 88 percent of fuel during the idle time when a train is not running.

Goods wagons:

A new wagon numbering system was adopted in Indian Railways in 2003. Wagons are allocated 11 digits, making it easy for identification and computerization of a wagon's information. The first two digits indicate Type of Wagon, the third and fourth digits indicate Owning Railway, the fifth and sixth digits indicate Year of Manufacture, the seventh to tenth digits indicate Individual Wagon Number, and the last digit is a Check digit.

IR's bulk requirement of wagons is met by wagon manufacturing units both in public and private sectors as well as other Public Sector Units under the administrative control of Ministry of Railways.

Passenger coaches:

On long-distance routes and also on some shorter routes, IR uses 2 primary types of coach design types. ICF coaches, in production from 1955 until Jan 2018,constitute the bulk of the current stock. These coaches, considered to be having inadequate safety features, are slowly being phased out. As of September 2017, around 40,000 coaches are still in operation. These coaches are being replaced with LHB coaches. Introduced in mid '90s, these coaches are lighter, safer and are capable of speeds up to 160 km/h

IR has introduced new electric multiple unit (EMU) train sets for long-distance routes. These train sets are expected to replace locomotive-hauled trains on long-distance routes.

On regional short-distance routes, IR runs Mainline electrical multiple unit (MEMU) or Diesel electrical multiple unit (DEMU) trains, depending on the traction available. These train sets are self-propelled with capability for faster acceleration or deceleration and are expected to reduce congestion on dense routes. Passenger locomotive-hauled trains, having frequent stops, are slowly being replaced with train sets across India.

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Manufacturing

Indian Railways is a vertically-integrated organization that produces majority of its locomotives & rolling stock at in-house production units, with a few recent exceptions.

Locomotives:

- **Chittaranjan Locomotive Works in Chittaranjan, West Bengal manufactures electric locomotives.**
- **Banaras Locomotive Works in Varanasi, Uttar Pradesh manufactures electric locomotives.**
- **Diesel Locomotive Factory, Marhowrah, Bihar, a Joint Venture of Indian Railways & General Electric manufactures high capacity diesel locomotives, used especially for freight transportation.**
- **Electric Locomotive Factory in Madhepura, Bihar, a Joint Venture of Indian Railways and Alstom SA manufactures electric locomotives.**
- **Diesel-Loco Modernisation Works in Patiala, Punjab upgrades and overhauls locomotives. They also manufacture electric locomotives**

Rolling Stock:

- **Integral Coach Factory in Perambur, Chennai, Tamil Nadu**
- **Rail Coach Factory in Kapurthala, Punjab**
- **Modern Coach Factory in Raebareli, Uttar Pradesh**
- **Coach Manufacturing Unit in Haldia, West Bengal**

Wheel & Axle:

- **Rail Wheel Factory in Bangalore, Karnataka**
- **Rail Wheel Plant, Bela in Chhapra, Bihar**

Network

Tracks:

As of 31 March 2022, IR network spans 128,305 km (79,725 mi) of track length, 102,831 km (63,896 mi) of running track length and 68,043 km (42,280 mi) of route length as stated in Year Book 2021-22. Track sections are rated for speeds ranging from 80 to 200 km/h (50 to 124 mph), though the maximum speed attained by passenger trains is 180 km/h (110 mph) during trial runs. All of the broad-gauge network is equipped with long-welded, high-tensile strength 52kg/60kg 90 UTS rails and pre-stressed concrete (PSC) sleepers with elastic fastenings.

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1,676 mm (5 ft 6 in) broad gauge is the predominant gauge used by IR and spans 63,950 km (39,740 mi) of route (94.10% of total route network), as of 31 March 2020. It is the broadest gauge in use across the world for regular passenger movement. Broad gauge generated 100% of the freight output (net tonne-kilometres) and more than 99% of the passenger output (passenger kilometres) in the fiscal year 2019–20.

The 1,000 mm (3 ft 3+3⁄8 in) metre gauge tracks and 762 mm (2 ft 6 in) and 610 mm (2 ft) narrow gauge tracks are present on fewer routes. All of these routes, except the heritage routes, are being converted to broad gauge. The metre gauge tracks were 2,402 kilometres (1,493 mi) (3.53% of total route network) and narrow gauges tracks were 1,604 km (997 mi) (2.36% of total route network) as of 31 March 2020.

Electrification:

As of 31 July 2023, IR has electrified 59,524 km of the total broad-gauge route kilometers. Indian Railway uses 25 kV 50 Hz AC traction on all its electrified tracks.

Railway electrification in India began with the first electric train, between Chhatrapati Shivaji Terminus and Kurla on the Harbour Line, on 3 February 1925 on the Great Indian Peninsula Railway (GIPR) at 1500 V DC. Heavy gradients in the Western Ghats necessitated the introduction of electric traction on the GIPR to Igatpuri on the North East line and Pune on the South East line. On 5 January 1928 1500 V DC traction was introduced on the suburban section of the Bombay, Baroda and Central India Railway between Colaba and Borivili, and between Madras Beach and Tambaram of the Madras and Southern Mahratta Railway on 11 May 1931, to meet growing traffic needs. The 3000 V DC electrification of the Howrah-Burdwan section of the Eastern Railway was completed in 1958. The first 3000 V DC EMU service began on the Howrah-Sheoraphuli section on 14 December 1957.

Research and trials in Europe, particularly on French Railways (SNCF), indicated that 25 kV AC was an economical electrification system. Indian Railways decided in 1957 to adopt 25 kV AC as its standard, with SNCF their consultant in the early stages. The first 25 kV AC section was Raj Kharswan–Dongoaposi on the South Eastern Railway in 1960. The first 25 kV AC EMUs, for Kolkata suburban service, began service in September 1962. For continuity, the Howrah–Burdwan section of the Eastern Railway and the Madras Beach–Tambaram section of the Southern Railway were converted to 25 kV AC by 1968. Because of limitations in the DC traction system, a decision was made to convert the electric traction system of the Mumbai suburban rail network of WR and CR from 1.5kV DC to 25 kV AC in 1996–97. The conversion from DC to AC traction was completed in 2012 by Western Railway, and in 2016 by Central Railway. Since then, the entire electrified mainline rail network in India uses 25 kV AC, and DC traction is used only for metros and trams.

Links with adjacent countries:

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Bangladesh

Bangladesh is connected by the four times a week Maitree Express that runs from Kolkata to Dhaka and weekly Bandhan Express which began running commercial trips between Kolkata and Khulna in November 2017.

Indian and Bangladeshi governments has started work on a new rail link to ease surface transport. India will build a 13 km (8.1 mi) railway linking Tripura's capital Agartala with Bangladesh's southeastern city of Akhaura, an important railway junction connected to Chittagong port, resource-rich Sylhet and Dhaka. An agreement to implement the railway project was signed between the then Indian Prime Minister Manmohan Singh and Bangladesh Premier Sheikh Hasina during the latter's visit to India in January 2010. Total cost of the proposed project is estimated at ₹252 crore (US$35 million). The Indian Railway Construction Company (IRCON) is constructing the new railway tracks on both sides of the border. Of the 13 km (8.1 mi) rail line, 5 km (3.1 mi) of tracks fall in Indian territory. The Northeast Frontier Railways (NFR) is laying the connecting tracks for the new rail link on the Indian side, up to Tripura's southernmost border town, Sabroom – 135 km (84 mi) south of Agartala. From Sabroom, the Chittagong international sea port is 72 km (45 mi) away.

Bhutan

An 18 km (11 mi) railway link with Bhutan is being constructed from Hashimara in West Bengal to Toribari in Bhutan.

China

No rail links currently exist with China.

Myanmar

No rail link currently exists with Myanmar, but a railway line is to be built from Jiribam (in Manipur) to Tamu through Imphal and Moreh. The construction of this missing link, as per the feasibility study conducted by the Ministry of External Affairs through RITES Ltd, is estimated to cost ₹29.41 billion (US$410 million).

Nepal

Two rail links to Nepal exist: passenger service between Jainagar and Bijalpura and freight services between Raxaul and Birganj.

Pakistan

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Two trains operate to Pakistan: the Samjhauta Express between Delhi and Lahore and the Thar Express between Jodhpur and Karachi. However, as of August 2019, they have been cancelled due to the tension over Kashmir.

Sri Lanka

No rail links currently exist with Sri Lanka.

But in the past a Rail link existed between india to sri lanka named Boatmail express. This train was terminated till Rameswaram due to the 1964 Rameswaram cyclone and never extended till date. Formally this train terminates at Dhanushkodi in india and a ferry service was operated till talai mannar island of sri lanka and from there rail connectivity is available.

Train types:

Trains are sorted into categories which dictate the number of stops on a route, their priority on the network, and their fare structure. Each express train is identified by a five-digit number. If the first digit in the train number is 1 or 2, they are long-distance express trains. If the first digit is 0, the train is a special train which will operate for a limited period of time with a different fare structure. A first digit of 5 denotes a passenger train.

The second digit indicates the zone operating the train. However, for high-speed trains, the second digit is either 0 or 2 (the first remains 1 or 2). The third digit denotes the division within the zone which is responsible for maintenance and cleanliness, and the last two digits are the train's serial number. The train numbering system was changed from four digits from December 2010, to accommodate the increasing number of trains.

Trains traveling in opposite directions along the same route are usually labelled with consecutive numbers. However, there is considerable variation in train numbers; some zones, such as Central Railway, have a less-systematic method of numbering trains.

Trains are classified by average speed. A faster train has fewer stops (halts) than a slower one, and is usually used for long-distance travel. Most express trains have special names to identify them easily. The names of the trains usually denote the regions they connect, the routes they traverse, or a famous person or tourist spot connected with the train.

Different Types of Trains:

Vande Bharat Express: A semi-high-speed, air-conditioned day time journey train with facilities such as Wi-Fi, snack tables, CCTV cameras, hydraulic-pressure doors, and a fire and smoke detection and extinguishing system. It can run at a speed of 200

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km/h (120 mph). It is the first semi-high speed (EMU) (locomotive-less) train set made in India. It was flagged off on 15 February 2019 by Prime Minister Narendra Modi. The model number for this particular train set is Train 18.

Currently, 34 Vande Bharat trains are in service, which includes fourteen 16-car services and twenty 8-car services. The government had initially set a target of 75 Vande Bharat services by August 2023 to mark 75 years of Indian independence; however, the deadline was later extended to August 2024.

Tejas Express: A semi-high-speed, air-conditioned train which had its inaugural run on 24 May 2017, covering 551.7 km (342.8 mi) in 8 hours 30 minutes. Coaches have bio-vacuum toilets, water-level indicators, tap sensors, hand dryers, integrated Braille displays, an LED TV for each passenger with a phone jack, local cuisine, Wi-Fi, tea and coffee vending machines, magazines, snack tables, CCTV cameras, and a fire and smoke detection and extinguishing system. It can run at a speed of 200 km/h (120 mph) but it is restricted to 130 km/h (81 mph) due to some technical reasons.

Gatimaan Express: The first semi-high-speed, air-conditioned train running between Delhi and Jhansi with a top speed of 160 km/h (99 mph)

Shatabdi Express: Air-conditioned, intercity trains for daytime travel. Unlike the Rajdhani or Duronto Expresses, the Shatabdi expresses make a round trip on the same day. The Bhopal Shatabdi Express (train number 12001/12002) is India's second-fastest train between New Delhi and Agra, with an average speed of 90 km/h (56 mph) and a top speed of 150 km/h (93 mph). The limited-stop trains have Wi-Fi.

Rajdhani Express: Limited-stop, air-conditioned trains linking state capitals to the national capital, New Delhi, with a top speed of 130–140 km/h (81–87 mph). The 2014 railway budget proposed increasing the numbers of Rajdhani and Shatabdi Expresses to 180 km/h (110 mph).

Duronto Express: Non-stop (except for technical halts) service introduced in 2009. In January 2016, it became possible to book tickets from those technical stops. They connect India's metros and major state capitals, and were introduced to equal (or exceed) the speed of the Rajdhani Express. With air-conditioned one-, two-, or three-tier seating, some have non-air-conditioned sleeper-class accommodations.

Humsafar Express: Air-conditioned, three-tier coach trains with LED screens displaying information about stations and train speed, a PA system, vending machines for tea and coffee, charging ports for electronic devices, bio-toilets, smoke alarms, CCTV cameras, curtains, and heating and refrigeration facilities for food. Its inaugural run was between Gorakhpur to Anand Vihar Terminal.

AC Express: Air-conditioned, limited-stop trains linking major cities, with a speed of about 130 km/h (81 mph).

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Double Decker Express: Air-conditioned, limited-stop, two-tier express trains for daytime travel

Uday Express: Air-conditioned double decker train for overnight travel.

Garib Rath Express: Air-conditioned, economy, three-tier trains with a top speed of 130 km/h (81 mph).

Yuva Express: Introduced with the Duronto Express to provide air-conditioned travel to young Indians, 60 percent of its seats were reserved for passengers between 18 and 45 years of age. The trains were unsuccessful, and operate only on the Delhi-Howrah and Delhi-Mumbai routes.

Jan Shatabdi Express: A more-economical version of the Shatabdi Express, with air-conditioned and non-air-conditioned classes and a top speed of 110 km/h (68 mph)

Sampark Kranti Express: Express service to New Delhi.

Kavi Guru Express: Introduced in honor of Rabindranath Tagore, four pairs of the trains operate on the network.

Vivek Express: Introduced to commemorate the 150th birth Anniversary of Swami Vivekananda in 2013, four pairs of Vivek Expresses run in the country.

Rajya Rani Express: Introduced to connect state capitals to major cities in that state.

Mahamana Express: Superfast train with Indian Railways' model rake coaches.

Intercity Express: Introduced to connect major cities on short routes with high and semi-high speeds. Trains include the Deccan Queen, Flying Ranee and Bilaspur Nagpur Intercity Express.

Antyodaya Express: Non-reserved, high-speed LHB coaches on peak routes to ease congestion.

Jan Sadharan Express: Non-reserved express trains on peak routes to ease congestion.

Suvidha Express: High priority trains with dynamic pricing on high demand routes.

Superfast Express: Trains with a max speed greater than 100–110 km/h (62–68 mph) and an average speed greater than 55 km/h (34 mph). With stops at very few stations, the tickets for these trains have a superfast surcharge.

Express: Trains with a max speed greater than 100 km/h (62 mph) and an average speed greater than 36 km/h (22 mph), with stops at few stations.

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Mail: These trains earlier had separate mail coaches. Nowadays, mail is carried in the luggage coach like all other trains.

Passenger: Slow, economical trains which stop at every (or almost every) station on a route. With generally-unreserved seating, these trains travel at about 40–80 km/h (25–50 mph).

Source- Wikipedia and Indian Railways Website

History of Railway Budget:

- A separate Railway Budget, which is different from the General Budget, was first introduced in 1924 on the basis of recommendations of the 10-member Acworth Committee.
- The committee, which submitted its report in 1921, was headed by British railway economist William Mitchell Acworth. It was appointed by the British Government to suggest measures for improving financial performance of the Railways.
- The First Railway Budget was announced in 1924 in British Period.
- John Mathai was the first Rail Minister.
- First Finance Minister, R.K. Shanmugham Chetty of Independent India announced Railway Budget on 26 November 1947.
- It is presented by the Union Railway Minster annually as a money bill in the Lok Sabha. The first ever live telecast of the Railway budget took place on 24 March 1994.
- Though the term Railway Budget is nowhere mentioned in the Constitution of India, it is introduced and passed in the Lok Sabha under the Articles 112 and 204 of the Constitution that govern the General Budget.
- Usually, the Rail budget is presented annually few days prior to the presentation of the General Budget. It precedes the submission of the Economic Survey of the previous financial year.
- Lalu Prasad Yadav holds the record of presenting the budget for six years in a row. He was the Union Minister of Railways between 2004 and 2009 under the United Progressive Alliance (UPA) Government.
- In 2002, Mamata Banerjee became the first women minister to present the budget. She also holds the distinction of presenting the budget under two different governments – National Democratic Alliance (NDA) and the UPA.
- In 2014, Railway Minister D V Sadananda Gowda presented the first railway budget, under the NDA Government headed by Narendra Modi.
- In 2016, Railway Minister Suresh Prabhu presented the last railway budget (Separate Budget), under the NDA Government headed by Narendra Modi.
- After 92 years, in 2017, Finance Minister, Arun Jaitley announced the Combine Budget (Railway Budget & Union Budget).

Railway Budget 2023:

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- ❖ A total of Rs 2.40 lakh crore has been earmarked in capital expenditure for the Indian Railways in the Union Budget 2023-24. This is approximately nine times the amount spent in fiscal year 2013-14.
- ❖ Capex will rise more over the next few years and the railway system will evolve as a national growth engine.
- ❖ Increased private investment will be made in the infrastructure sector of the railways. The Infrastructure Finance Secretariat, which has been developed recently will support all stakeholders like roads, power, railways, and urban infrastructure which rely primarily on government resources.
- ❖ The Union Budget 2023-24 is expected to benefit the middle-class sector since railways are not likely to increase passenger ticket or freight fares.
- ❖ A comprehensive description of the Indian Railways' budget estimates, allocations, revenue, and annual statements will be provided by the finance minister.
- ❖ The Railway budget 2023 is likely to encourage the Make in India effort and to emphasise the importance of renewable energy.
- ❖ The Indian Railways has designed an autonomous railway protection system called Kavach (Train Collision Avoidance System). This system will focus on preventing accidents caused by human errors.
- ❖ By 2030, the Indian Railways aims to become a Net Zero Carbon Emitter. It intends to lower its carbon footprint and reliance on imported fuel, while saving foreign exchange.
- ❖ The Indian Railways is introducing Kavach in stages. It has been implemented for 1,455 route km on the South Central Railway with 77 locomotives till 23 December 2022. Kavach work is underway on the Delhi-Mumbai and Delhi-Howrah sectors (3000 route km).
- ❖ The railway track doubling between Surendranagar and Rajkot is nearly complete. The Ministry of Railways states that 92% of the 116.17 km long doubling project is finished.
- ❖ The Udhampur Srinagar Baramulla Rail Link (USBRL), which was implemented to build a broad-gauge railway line over the Himalayas is now 90% finished. Through this project, Kashmir will be connected to other parts of India.
- ❖ The Sivok-Rangpo New Broad-Gauge Rail Line Project is now more than half completed. Sikkim will be connected to the rail network with the help of this project. This railway line will stretch 44.96 km from Sivok to Rangpo. A small railway line of 41.55 km will stretch in Sikkim.
- ❖ The introduction of Vande Bharat Express has brought a significant improvement in terms of speed and convenience. Because of its rapid acceleration and deceleration, the train may reach a maximum speed of 160-180 km per hour. With these trains, the journey time will be reduced by 25% to 45%.
- ❖ In the coming three years, 400 new-generation Vande Bharat Express trains will be constructed and manufactured. Additionally, more money will be allocated for the new Vande Bharat trains and the sleeper-class Vande Bharat 2.0.

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Longest Bridges in India

Dhola Sadiya Bridge (Bhupen Hazarika Setu): 9.15 Km, Assam

Dhola Sadiya bridge also known as the Bhupen Hazarika Setu. Dhola Sadiya Bridge is over the mighty Brahmaputra is become the India's longest bridges above water. The 9.15 km long bridge connects Assam and Arunachal Pradesh, inaugurated by Prime Minister Narendra Modi. It reduce the distance between the Assam and Arunachal Pradesh by 165 Km and cut down the travel time by 5 hours.

Dibang River Bridge: 6.2 Km, Arunachal Pradesh

Dibang River also known as the Sikang Bridge. Dibang River Bridge across Dibang river in Arunachal Pradesh is the second longest road bridge in India, after Bhupen Hazarika Setu and followed by Mahatma Gandhi Setu. It is 6.2 Km long. It is very important bridge for strategical reason, as it helps Indian Army to reach China border in less time.

Mahatma Gandhi Setu: 5.6 Km, Bihar

Mahatma Gandhi Setu was the third longest river bridge in India, over the river Ganges connecting Patna in the south to Hajipur. It is 5750 meters long river bridge one of the major tourist attraction of the state. It was inaugurated by then Prime Minister Indira Gandhi in 1982. It was the longest bridge for many years before the Dibang Bridge was inaugrated.

Bandra Worli Sea Link: 5.57 Km, Maharashtra

Bandra Worli Sea Link or Rajiv Gandhi Sea Link is the fourth longest bridge above water in India. It is a master piece build in India. The Bandra Worli Sea Link is a bridge that links Bandra in the Western Suburbs of Mumbai with Worli in South Mumbai. It is a cable stayed bridge with pre stressed concrete steel viaducts on either side. The 5.57 long bridge is a part of the proposed Western Freeway

Bogibeel Bridge: 4.94 Km, Assam

Bogibeel bridge is a combined road and rail bridge over the Brahmaputra river between Dhemaji and Dibrugarh districts in Assam. Bogibeel river bridge is the longest rail cum road bridge in India measuring 4.94 km. As it is situated in an earthquake-prone area it is India's first bridge to have fully welded steel concrete support beams that can withstand earthquakes of magnitudes up to 7 on the Richter Scale. It is Asia's 2nd longest rail cum road bridge and has a serviceable period of around 120 years.

Vikramshila Setu: 4.7 Km, Bihar

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Vikramshila Setu is a bridge across the Ganges, near Bhagalpur in the Indian state of Bihar named after the ancient Mahavihara of Vikramashila which was established by King Dharmapala. Vikramshila Setu is 5th longest bridge over water in India. The 4.7 km long two lane bridge runs from Barari Ghat to Naugachia.

Vembanad Rail Bridge: 4.62 Km, Kerala

Vembanad Rail Bridge is a rail connecting Edappally and Vallarpadam in Kochi, Kerala. With a total length of 4,620 metres, it is the longest railway bridge in India. The railway line is dedicated solely for freight trains. The Vembanad Rail Bridge is the most beautiful bridge in Kerala. This bridge lets only 15 trains to pass each day. Vembanad Lake is the longest lake in India and the largest lake of Kerala and is also ranked as one of the largest Indian lakes that is famous as the host of the traditional sports, Nehru Trophy Snake Boat Race.

Digha Sonpur Bridge: 4.55 Km, Bihar

Digha Sonpur Rail Road Bridge is also known as J.P Setu. Digha Sonpur rail road Bridge is recently completed bridge across river Ganges,connecting Digha Ghat and Pahleja Ghat in Bihar. The rail cum road bridge provides easy roadway and railway link between northern and southern parts of Bihar. The bridge 4.55 km long roadway and railway link bridge is second railway bridge in Bihar, inaugurated on 3 February 2016.

Arrah Chhapra Bridge: 4.35 Km, Bihar

Arrah Chhapra Bridge is also known as Veer Kunwar Singh Setu is the multi span bridge across the Ganges river connecting Arrah and Chhapra of Bihar. Veer Kunwar Singh bridge was opened for public use on 11 June 2017. Arrah Chhapra Bridge reduced the distance between Chapra and Arrah from 130 km to 40 km. This has greatly reduce the distance of Arrah, Aurangabad and Bhabhua districts from Siwan, Chhapra and Gopalganj districts.

Godavari Bridge: 4.13 Km, Andhra Pradesh

The Godavari Fourth Bridge also known as Kovvur–Rajahmundry 4th Bridge is built across Godavari River in Rajahmundry, Andhra Pradesh. This bridge was constructed, to reduce road distance between Kolkata & Chennai by at least 150 kilometres. This dual bridge connects Kovvur in West Godavari district to Diwancheruvu Junction in Rajamahendravaram in East Godavari district via Katheru, Konthamuru, Palacherla areas in Rajamahendravaram City.

Big railway stations in India with the highest number of platforms.

1. Howrah Junction - 23 Platforms

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Howrah Junction is one of the four major stations of Kolkata. The station has 23 platforms and stands as the top station with the largest number of platforms in India. These platforms hold 26 tracks, and it is one of the busiest railway stations in the country. In terms of traveler volume per day, the Howrah Junction stands first in India.

2. Sealdah Railway Station - 20 Platforms

Sealdah railway station is a suburban railway station of Kolkata. This station holds 20 platforms divided into two terminals, the northern and southern. This station serves trains that cover nooks and corners of Kolkata. Every day, more than 1.8 million people use this station for commutation. This station started its service in the mid 19th century. Until 1978, this station was a tram terminus.

3. Chhatrapati Shivaji Terminus - 18 Platforms

The Chhatrapati Shivaji Terminus of Mumbai is the busiest railway station in the country. The station holds 18 platforms. Eleven of those eighteen are dedicated for long-distance trains out of Mumbai and seven serves suburban trains covering suburbs of Mumbai. This station is both commercially and historically important landmarks of Mumbai.

4. Chennai Central - 17 Platforms

The Chennai Central station is one of the many stations in Chennai and it holds 17 platforms. Two of these platforms are dedicated exclusively to the suburban trains. The remaining 15 platforms are for long-distance trains. Chennai Central is the busiest and most profitable station in South India. This station is also tagged as one of the cleanest stations of the country. Around 200 long haul trains and 257 local trains serve this station, every day.

5. New Delhi Railway Station - 16 Platforms

The New Delhi railway station has 16 platforms. These platforms serve more than 350 trains daily. This station is one of the busiest stations in the country. The station holds the record for being the largest in the country and the most complex interlocking system in the world. This station handles more than 500,000 passengers per day, and the volume increases several folds during weekends and holiday seasons.This station serves as a starting and ending point for Palace on Wheels train.

6. Kanpur Central Station - 14 Platforms

This station was called the Cawnpore North Barracks station in the past. This is one of the top busy central stations of the country and second busiest in terms of volume of passengers. The station has 14 platforms serving more than 2.3 million

passengers every day, with a frequency of 611 trains every day. This station stands first in terms of the number of connections located in a single station in India. According to the government report, this is the most profitable station in the country.

7. Allahabad Junction - 12 Platforms

Allahabad Junction has 12 platforms and 19 tracks. This junction lies on the line between Howrah and Delhi, Howrah and Mumbai, and other important routes. This junction mainly serves locations around Allahabad and a few long-distance destinations. However, many major route trains pass through this station, making it one of the busy stations of India.

Rail Transport in the World

Steam Locomotive:

James Watt, a Scottish inventor and mechanical engineer, greatly improved the steam engine of Thomas Newcomen, hitherto used to pump water out of mines. Watt developed a reciprocating engine in 1769, capable of powering a wheel. Although the Watt engine powered cotton mills and a variety of machinery, it was a large stationary engine. It could not be otherwise: the state of boiler technology necessitated the use of low-pressure steam acting upon a vacuum in the cylinder; this required a separate condenser and an air pump. Nevertheless, as the construction of boilers improved, Watt investigated the use of high-pressure steam acting directly upon a piston. This raised the possibility of a smaller engine, that might be used to power a vehicle and he patented a design for a steam locomotive in 1784. His employee William Murdoch produced a working model of a self-propelled steam carriage in that year.

The first full-scale working railway steam locomotive was built in the United Kingdom in 1804 by Richard Trevithick, a British engineer born in Cornwall. This used high-pressure steam to drive the engine by one power stroke. The transmission system employed a large flywheel to even out the action of the piston rod. On 21 February 1804, the world's first steam-powered railway journey took place when Trevithick's unnamed steam locomotive hauled a train along the tramway of the Penydarren ironworks, near Merthyr Tydfil in South Wales.

Electric Locomotive:

The first known electric locomotive was built in 1837 by chemist Robert Davidson of Aberdeen in Scotland, and it was powered by galvanic cells (batteries). Thus, it was also the earliest battery electric locomotive. Davidson later built a larger locomotive named Galvani, exhibited at the Royal Scottish Society of Arts Exhibition in 1841. The seven-ton vehicle had two direct-drive reluctance motors, with fixed electromagnets

acting on iron bars attached to a wooden cylinder on each axle, and simple commutators. It hauled a load of six tons at four miles per hour (6 kilometers per hour) for a distance of one and a half miles (2.4 kilometres). It was tested on the Edinburgh and Glasgow Railway in September of the following year, but the limited power from batteries prevented its general use. It was destroyed by railway workers, who saw it as a threat to their job security.

Werner von Siemens demonstrated an electric railway in 1879 in Berlin. The world's first electric tram line, Gross-Lichterfelde Tramway, opened in Lichterfelde near Berlin, Germany, in 1881. It was built by Siemens. The tram ran on 180 Volt DC, which was supplied by running rails. In 1891 the track was equipped with an overhead wire and the line was extended to Berlin-Lichterfelde West station. The Volk's Electric Railway opened in 1883 in Brighton, England. The railway is still operational, thus making it the oldest operational electric railway in the world. Also in 1883, Modling and Hinterbruhl Tram opened near Vienna in Austria. It was the first tram line in the world in regular service powered from an overhead line. Five years later, in the US electric trolleys were pioneered in 1888 on the Richmond Union Passenger Railway, using equipment designed by Frank J. Sprague.

The first use of electrification on a main line was on a four-mile stretch of the Baltimore Belt Line of the Baltimore and Ohio Railroad (B&O) in 1895 connecting the main portion of the B&O to the new line to New York through a series of tunnels around the edges of Baltimore's downtown.

Electricity quickly became the power supply of choice for subways, abetted by the Sprague's invention of multiple-unit train control in 1897. By early 1900s most street railways were electrified.

The first practical AC electric locomotive was designed by Charles Brown, then working for Oerlikon, Zürich. In 1891, Brown had demonstrated long-distance power transmission, using three-phase AC, between a hydro-electric plant at Lauffen am Neckar and Frankfurt am Main West, a distance of 280 km. Using experience, he had gained while working for Jean Heilmann on steam-electric locomotive designs, Brown observed that three-phase motors had a higher power-to-weight ratio than DC motors and, because of the absence of a commutator, were simpler to manufacture and maintain. However, they were much larger than the DC motors of the time and could not be mounted in underfloor bogies: they could only be carried within locomotive bodies.

In 1894, Hungarian engineer Kalman Kando developed a new type 3-phase asynchronous electric drive motors and generators for electric locomotives. Kando's early 1894 designs were first applied in a short three-phase AC tramway in Evian-les-Bains (France), which was constructed between 1896 and 1898.

In 1896, Oerlikon installed the first commercial example of the system on the Lugano Tramway. Each 30-tonne locomotive had two 110 kW (150 hp) motors run by three-

phase 750 V 40 Hz fed from double overhead lines. Three-phase motors run at constant speed and provide regenerative braking, and are well suited to steeply graded routes, and the first main-line three-phase locomotives were supplied by Brown (by then in partnership with Walter Boveri) in 1899 on the 40 km Burgdorf—Thun line, Switzerland.

A prototype of a Ganz AC electric locomotive in Valtellina, Italy, 1901

Italian railways were the first in the world to introduce electric traction for the entire length of a main line rather than just a short stretch. The 106 km Valtellina line was opened on 4 September 1902, designed by Kando and a team from the Ganz works.The electrical system was three-phase at 3 kV 15 Hz.

Diesel Locomotive:

Earliest recorded examples of an internal combustion engine for railway use included a prototype designed by William Dent Priestman, which was examined by Sir William Thomson in 1888 who described it as a "[Priestman oil engine] mounted upon a truck which is worked on a temporary line of rails to show the adaptation of a petroleum engine for locomotive purposes.". In 1894, a 20 hp (15 kW) two axle machine built by Priestman Brothers was used on the Hull Docks.

In 1906, Rudolf Diesel, Adolf Klose and the steam and diesel engine manufacturer Gebrüder Sulzer founded Diesel-Sulzer-Klose GmbH to manufacture diesel-powered locomotives. Sulzer had been manufacturing diesel engines since 1898. The Prussian State Railways ordered a diesel locomotive from the company in 1909. The world's first diesel-powered locomotive was operated in the summer of 1912 on the Winterthur–Romanshorn railway in Switzerland, but was not a commercial success. The locomotive weight was 95 tonnes and the power was 883 kW with a maximum speed of 100 km/h. Small numbers of prototype diesel locomotives were produced in a number of countries through the mid-1920s.

A significant breakthrough occurred in 1914, when Hermann Lemp, a General Electric electrical engineer, developed and patented a reliable direct current electrical control system (subsequent improvements were also patented by Lemp). Lemp's design used a single lever to control both engine and generator in a coordinated fashion, and was the prototype for all diesel–electric locomotive control systems. In 1914, world's first functional diesel–electric railcars were produced for the (Royal Saxon State Railways) by Waggonfabrik Rastatt with electric equipment from Brown, Boveri & Cie and diesel engines from Swiss Sulzer AG. They were classified as DET 1 and DET 2. The first regular use of diesel–electric locomotives was in switching (shunter) applications. General Electric produced several small switching locomotives in the 1930s (the famous "44-tonner" switcher was introduced in 1940) Westinghouse Electric and Baldwin collaborated to build switching locomotives starting in 1929.

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In 1929, the Canadian National Railways became the first North American railway to use diesels in mainline service with two units, 9000 and 9001, from Westinghouse.

High-speed rail:

The first electrified high-speed rail Tokaido Shinkansen (series 0) was introduced in 1964 between Tokyo and Osaka in Japan. Since then, high-speed rail transport, functioning at speeds up and above 300 km/h, has been built in Japan, Spain, France, Germany, Italy, Taiwan (Republic of China), the People's Republic of China, the United Kingdom, South Korea, Scandinavia, Belgium and the Netherlands. The construction of many of these lines has resulted in the dramatic decline of short haul flights and automotive traffic between connected cities, such as the London–Paris–Brussels corridor, Madrid–Barcelona, Milan–Rome–Naples, as well as many other major lines.

High-speed trains normally operate on standard gauge tracks of continuously welded rail on grade-separated right-of-way that incorporates a large turning radius in its design. While high-speed rail is most often designed for passenger travel, some high-speed systems also offer freight service.

Hydrogen power introduced:

Alstom Coradia Lint hydrogen-powered train entered service in Lower Saxony, Germany in 2018.

Rail Transport in India

The first proposals for railways in India were made in Madras in 1832. The first train in India ran from Red Hills to Chintadripet bridge in Madras in 1837. It was called Red Hill Railway. It was hauled by a rotary steam engine locomotive manufactured by William Avery. It was built by Sir Arthur Cotton. It was primarily used for transporting granite stones for road building work in Madras.[88] In 1845, a railway was built at Dowleswaram in Rajahmundry. It was called Godavari Dam Construction Railway. It was also built by Arthur Cotton. It was used to supply stones for construction of a dam over Godavari.

On 8 May 1845, Madras Railway was incorporated. In the same year, the East India Railway company was incorporated. On 1 August 1849, Great Indian Peninsular Railway (GIPR) was incorporated. In 1851, a railway was built in Roorkee. It was called Solani Aqueduct Railway. It was hauled by steam locomotive Thomason, named after a British officer-in-charge. It was used for transporting construction materials for building of aqueduct over Solani river. In 1852, the "Madras Guaranteed Railway Company" was incorporated.

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The first passenger train in India ran between Bombay (Bori Bunder) and Thane on 16 April 1853. The 14-carriage train was hauled by three steam locomotives: Sahib, Sindh and Sultan. It ran for about 34 kilometers between these two cities carrying 400 people. The line was built and operated by GIPR.[89][90] This railway line was built in 1,676 mm (5 ft 6 in) broad gauge, which became the standard for the railways in the country. The first passenger railway train in eastern India ran from Howrah, near Calcutta to Hoogly, for distance of 24 miles, on 15 August 1854. The line was built and operated by EIR. The first passenger train in South India ran from Royapuram / Veyasarapady (Madras) to Wallajah Road (Arcot) on 1 July 1856, for a distance of 60 miles. It was built and operated by Madras Railway. On 24 February 1873, the first tramway (a horse-drawn tramway) opened in Calcutta between Sealdah and Armenian Ghat Street, a distance of 3.8 km.

1832–1852:

India's first railway proposals were made in Madras in 1832.[1] The Red Hill Railway, the country's first train, ran from Red Hills to Chintadripet bridge in Madras in 1837. It was hauled by a rotary steam-engine locomotive manufactured by William Avery. Built by Arthur Cotton, the railway was primarily used to transport laterite stone for road-building work in Madras.[1] In 1845, the Godavari Dam Construction Railway was built at Dowleswaram in Rajahmundry. Also built by Cotton, it supplied stone for the construction of a dam over the Godavari River.[1]

On 8 May 1845, the Madras Railway was incorporated, followed that year by the East India Railway. On 1 August 1849, the Great Indian Peninsular Railway was incorporated by an act of parliament. The "guarantee system", providing free land and a guaranteed five-percent rate of return to private British companies willing to build railways, was finalized on 17 August 1849. In 1851, the Solani Aqueduct Railway was built in Roorkee. It was hauled by the Thomason steam locomotive, named after a British officer-in-charge of that name. The railway transported construction materials for an aqueduct over the Solani River. In 1852, the Madras Guaranteed Railway Company was incorporated.

1853–1924:

The country's first passenger train, which ran between Bombay's Bori Bunder station and Thane on 16 April 1853, was dedicated by Lord Dalhousie. The 14-carriage train was hauled by three steam locomotives: the Sahib, Sindh, and Sultan. Travelling 34 kilometres (21 mi), the train carried 400 people. The passenger line was built and operated by the Great Indian Peninsula Railway (GIPR). It was built in 1,676 mm (5 ft 6 in) broad gauge, which became the country's standard for railways.

In May 1854, the Bombay–Thane line was extended to Kalyan with the Thane viaducts over the Thane creek (India's first railway bridges). The first passenger train in eastern India ran from Howrah (near Calcutta) to Hoogly, a distance of 24 miles (39 km), on 15 August 1854. The line was built and operated by the East Indian

Railway Company (EIR).[5] That year, the GIPR opened its first workshops in Byculla. In 1855, the BB&CI Railway was incorporated.That August, the EIR Express and Fairy Queen steam locomotives were introduced.

South India's first passenger train ran from Royapuram–Veyasarapady (Madras) to Wallajah Road in Arcot, a distance of 60 miles (97 km), on 1 July 1856. It was built and operated by the Madras Railway. The Madras Railway's first workshop opened in Perambur (near Madras) that year, and the Bombay-Thane line was extended to Khopoli. In 1858, the Eastern Bengal Railway was incorporated.

India's first tramway (a horse-drawn tramway) opened in Calcutta between Sealdah and Armenian Ghat Street, a distance of 3.8 kilometres (2.4 mi), on 24 February 1873. The following year, the Great South Indian and Carnatic Railways merged to form the South Indian Railway Company. On 9 May 1874, a horse-drawn tramway began operation in Bombay between Colaba and Parel. The Calcutta Tramways Company was incorporated in 1880, followed a decade later by the East Coast State Railway.

Lighting in passenger coaches was introduced by many railway companies in 1897. In 1902, the Jodhpur Railway was the first to introduce electric lighting as standard fixtures. Electric signal lighting was introduced between Dadar and Currey Road in Bombay in 1920.

1925–1946:

The first railway budget was presented in 1924. On 3 February 1925, the first electric passenger train in India ran between Victoria Terminus (VT) and Kurla on 1,500 V DC overhead traction. Cammell Laird and Uerdingenwagonfabrik manufactured the locomotives for this train. The VT-Bandra section was electrified (with an elevated platform at Sandhurst Road), the Oudh and Rohilkhund Railway was merged with the EIR, the first railway budget was presented in the same year. In 1926, the Kurla-Kalyan section was electrified with 1,500 V DC. Electrification to Poona and Igatpuri (both 1,500 V DC) over the Bhore and Thal Ghats was also completed. The Charbagh railway station in Lucknow was built in 1914. The Bandra-Virar section was electrified with 1,500 V DC in January 1928.

The Frontier Mail made its inaugural run between Bombay VT and Peshawar in 1928. The country's first automatic color-light signals became operational, on GIPR's lines between Bombay VT and Byculla. In 1928, the Kanpur Central and Lucknow stations opened. The Grand Trunk Express began running between Peshawar and Mangalore, the Punjab Limited Express began running between Mumbai and Lahore, and automatic color-light signaling was extended to the Byculla-Kurla section the following year. On 1 June 1930, the Deccan Queen began service (hauled by a WCP-1—No. 20024, old number EA/1 4006) with seven coaches on the GIPR's electrified route from Bombay VT to Poona. The Hyderabad Godavari Valley Railway was

merged into Nizam's Guaranteed State Railway and the route of the Grand Trunk Express was changed to Delhi-Madras that year.

1951–1983:

The re-organisation of railways in India into regional zones began in 1951. On 14 April of that year, the Southern Railway zone was created. On 5 November, the Central and Western Railway zones were created. That year, the post of Chief Commissioner of Railways was abolished and the Railway Board adopted the practice of making its senior-most member the chairman of the board. The government of West Bengal also entered into an agreement with the Calcutta Tramways Company to take over its administrative functions that year. The Northern, Eastern and North Eastern Railway zones were created on 14 April 1952.

Fans and lights were mandated for all compartments in all classes of passenger accommodations in 1952, and sleeping accommodations were introduced in coaches. On 1 August 1955, the South-Eastern zone was split off from the Eastern Railway zone. A divisional system of administration was established for the zones in 1956, and the first fully air-conditioned train was introduced (between Howrah and Delhi).

In 1957, after successful trials in France, SNCF proposed 25 kV AC electrification for India's railways. Indian Railways decided to adopt 25 kV AC electrification, choosing SNCF as a technical consultant. The Main Line Electrification Project (which later became the Railway Electrification Project and, still later, the Central Organisation for Railway Electrification) was established that year. In 1958, the Northeast Frontier Railway zone split off from the North Eastern zone. In 1959, Raj Kharswan to Dangoaposi was the first section electrified with 25 kV AC traction. The first scheduled train using 25 kV AC traction ran on the Raj Kharswan-Dangoaposi section on 11 August 1960. The first containerized freight service began between Bombay and Ahmedabad in 1966, and 25 kV AC electrification of several suburban tracks around Delhi, Madras and Calcutta was completed. In 1979, the Main Line Electrification Project became the Central Organization for Railway Electrification (CORE).

1984 – present:

India's first metro train ran from Esplanade to Bhowanipur (now the Netaji Bhawan station) in Calcutta on 24 October 1984, and the Calcutta Metro was the country's first rapid-transit line.

In 1986, computerized ticketing and reservations were introduced in New Delhi. The Shatabdi Express, India's fastest train, was introduced between New Delhi and Jhansi in 1988; the line was later extended to Bhopal. In 1990, the first self-printing ticket machine (SPTM) was introduced in New Delhi. Air-conditioned, three-tier coaches and a sleeper class (separate from Second Class) were introduced in 1993.

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On 16 January 1995, the first regularly-scheduled service with 2 x 25 kV traction began on the Bina-Katni line. In September 1996, the CONCERT system of computerized reservations began in New Delhi, Mumbai and Chennai. In 1998, coupon-validating machines (CVMs) were introduced at Mumbai CST. The CONCERT system became operational nationwide on 18 April 1999; the South East Central Railway zone was established and credit cards were accepted for tickets and reservations at some stations that year. In February 2000, the Indian Railways website went online. On 6 July 2002, the East Coast, South Western, South East Central, North Central and West Central Railway zones were created. Indian Railways (IR) began online train reservations and ticketing on 3 August of that year, with Internet ticketing extended to many cities on 1 December. On 5 February 2012, The Western Railway zone (WR) ended its use of 1,500 V DC traction, switching to 25 kV AC traction. The Tatkal system of ticketing was extended to all trains on 26 September 2013.

Gatimaan Express, made its maiden journey from Delhi to Agra on 5 April 2016. The Central Railway zone (CR) ended its use of DC traction in the Mumbai area and on the country's main-line rail network, switching to 25 kV AC traction on 11 April of that year.

The Vande Bharat Express is a medium-distance train service operated by Indian Railways. Similar to Shatabdi Express, these are day train services that connect Indian cities which are less than 10 hours apart.

Currently, 34 Vande Bharat trains are in service, which includes fourteen 16-car services and twenty 8-car services. The government had initially set a target of 75 Vande Bharat services by August 2023 to mark 75 years of Indian independence; however, the deadline was later extended to August 2024.

Source- Wikipedia

Indian Railways Time Line:

- In 1861, Churchgate station opened by Bombay, Baroda and Central India Railway (BBCI) Railways as its new terminus for Bombay.
- In 1864, Delhi Junction, the oldest station in Delhi city was established near Chandni Chowk for train operations between Delhi- Howrah/Calcutta.
- In 1867, first rail line from Lucknow to Kanpur was built.
- In 1870, the Sutlej Bridge was completed, its completion was defined as "work of magnitude".
- In 1880, the Darjeeling Steam Tramway (later Darjeeling Himalayan Railways) started its services on its first section Siliguri- Darjeeling Line.
- In 1895, First Locomotive, an F Class 0-6-0 MG Loco, built in Ajmer for the Rajputana Malwa Railway(F-734). This is now preserved at National Rail Museum.

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- In 1911, construction of Pamban Railway Bridge started. Pamban Railway Bridge is the first Indian Bridge built across the sea.
- Between 1924-1944, nationalisation of railways was initiated. All major rail companies including Great Indian Peninsula Railway (GIPR), East Indian Railway (EIR) was taken over by the State.
- In 1928, First automatic colour light signals in India were introduced in Bombay VT & Byculla. In 1930, power signalling was introduced, upper quadrant semaphore signals introduced.
- In 1930, the Deccan Queen started its journey, hauled by a WCP-1, on newly electrified route to Poona (Pune).
- In 1943, the iconic Howrah Bridge was commissioned.
- In 1954, sleeping accommodation was introduced in 3 Tier coaches.
- In 1964, Taj Express from New Delhi to Agra was introduced to allow tourists to visit Agra and return to New Delhi the same day. In 1965, Fast Freight services were introduced on several routes.
- In 1986, computerized ticketing and reservation was introduced at New Delhi.
- In 1990, first self-printing ticket machine was introduced. In June 2001, WDP-4 was started and 10 of them were provided by General Motors, operating out of Hubli.
- In 1988, the first Shatabdi Express was introduced between New Delhi and Jhansi; it was later extended to Bhopal.
- In 1990, the first self-printing ticket machine (SPTM) was introduced in New Delhi.
- In 1993, air-conditioned three-tier coaches and a sleeper class (separate from second class) were introduced on Indian Railways.
- In 1996, The CONCERT system of computerized reservations was deployed in New Delhi, Mumbai and Chennai.
- In 1998, coupon validating machines (CVMs) were introduced at Mumbai Chhatrapati Shivaji Maharaj Terminus.
- In 1999, The nationwide concierge system began operation.
- In February 2000, the Indian Railways website went online.
- In 2002, Indian Railways began online train reservations and ticketing.
- The Railway Budget was usually presented two days before the Union budget every year till 2016.
- The central government approved merger of the Rail and General budgets from next year, ending a 92-year-old practice of a separate budget for the nation's largest transporter.
- On 31 March 2017, Indian Railways announced that the country's entire rail network would be electrified by 2022 or 2023, and become a net-zero railway by 2030.
- On 22 March 2020, Indian Railways announced a nationwide shutdown of passenger rail service to combat the COVID-19 pandemic in India.

Railway Electrification

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The progress of Electrification since independence is tabulated below:

Trend of Railway Electrification Commissioning in India (1925-2023)		
Period	**Electrification (rkm)**	**Cumulative (rkm)**
1925-1947	388	388
1948-2014	21,413	21,801
2014-2015	1,176	22,997
2015-2016	1,502	24,479
2016-2017	1,646	26,125
2017-2018	4,087	30,212
2018-2019	5,276	35,488
2019-2020	4,378	39,866
2020-2021	6,015	45,881
2021-2022	6,366	52,247
2022-2023	6,565	58,812

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Electrified network by state (broad gauge only) as of 1 November 2023			
State	**Total route km**	**Electrified route km**	**% Electrification (BG to BG)**
Andhra Pradesh	3,965	3,841	96.87
Arunachal Pradesh	12	0	0
Assam	2,518	871	34.59
Bihar	3,710	3,625	97.71
Chandigarh	16	16	100
Chhattisgarh	1,199	1,199	100
Delhi	183	183	100
Goa	189	147	77.78
Gujarat	3,862	3,445	89.20
Haryana	1,701	1,701	100
Himachal Pradesh	67	67	100

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Electrified network by state (broad gauge only) as of 1 November 2023			
State	**Total route km**	**Electrified route km**	**% Electrification (BG to BG)**
Jammu & Kashmir	298	298	100
Jharkhand	2,558	2,558	100
Karnataka	3,836	3,060	79.77
Kerala	1,047	947	90.45
Madhya Pradesh	4,857	4,857	100
Manipur	13	0	0
Meghalaya	9	9	100
Mizoram	2	0	0
Maharashtra	5,760	5,561	96.55
Nagaland	11	0	0
Odisha	2,849	2,849	100

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Electrified network by state (broad gauge only) as of 1 November 2023			
State	Total route km	Electrified route km	% Electrification (BG to BG)
Punjab	2,253	1,992	88.42
Puducherry	21	21	100
Rajasthan	5,638	4,988	88.47
Sikkim	0	0	0
Telangana	1,923	1,923	100
Tamil Nadu	3,854	3,659	94.94
Tripura	265	0	0
Uttar Pradesh	8,516	8,516	100
Uttarakhand	347	347	100
West Bengal	4,047	3,771	93.18
Total (BG)	65,526	60,451	92.25

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Types of Railway Lines

- **Conventional lines:** The routes which support an operational speed of less than 110 km/h (68 mph) are conventional rail lines.

- **Group B lines:** The routes which support an operational speed between 110 and 130 km/h (68 and 81 mph) are classified as Group B lines.

- **Group A lines:** The routes that support the speeds between 110 and 160 km/h (68 and 99 mph) are classified as Group A lines.

- **Semi-high-speed lines:** The routes that support speeds between 160 and 200 km/h (99 and 124 mph) are considered as a higher speed or semi-high-speed rail

- **High-speed lines:** The routes that support speeds beyond semi-high speeds are considered as high-speed lines.

RPF, during the month of November 2023, made certain commendable achievements under several operations run by it: –

- **Operation "NanheFaristey" - Rescuing Lost Children:** Under the mission "NanheFaristey," RPF played a pivotal role in reuniting more than 520 children in need of care and protection with their families. These children were separated from their families for various reasons, and RPF worked tirelessly to ensure their safe return.

- **Anti-Human Trafficking Efforts (Operation AAHT):** RPF's Anti-Human Trafficking Units (AHTUs) at various posts across the Indian Railways worked relentlessly to thwart the sinister plans of human traffickers. In November 2023, RPF rescued 35 persons from the clutches of traffickers.

- **Operation "Jeevan Raksha" - Saving Lives:** RPF's vigilant and swift action, saved the lives of 224 passengers who had accidently fallen while deboarding or boarding moving trains at platforms and railway tracks, in the month of November 2023, under operation 'Jeevan Raksha'.

- **Empowering Women Passengers - "Meri Saheli" Initiative:** RPF takes the security of women passengers seriously and has launched the "Meri Saheli" initiative. During November 2023, 229 "Meri Saheli" teams attended 13,552 trains and provided security assurance to 410,259 lady passengers. RPF also took action against 4618 individuals found in coaches reserved for women.

- **Cracking Down on Touts (Operation "Uplabdh"):** In the fight against touts, RPF arrested 392 individuals in November 2023 and took legal action against them as per the law. Additionally, they seized future tickets valued at Rs. 42.28 lakhs.

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- **Operation "NARCOS" - Combating Drug Crimes:** In a commendable effort, RPF arrested 91 individuals and seized narcotics valued at Rs. 3.69 crores during November 2023. These criminals were handed over to empowered agencies for further legal action.

- **Swift Response to Passengers' Concerns:** RPF promptly addressed security-related passenger complaints through Rail Madad Portal and the helpline (No. 139 integrated with Emergency Response Support System No. 112). Over 21,800 complaints were received in November 2023, with RPF taking necessary actions to resolve them.

- **Operation "Yatri Suraksha" - Protecting Passengers:** RPF supplements the efforts of police in preventing and detecting crimes against railway passengers. In November 2023, RPF arrested 229 criminals involved in offenses against passengers, delivering them to the concerned GRP/Police.

- **Ensuring Safety through "Operation Sanraksha":** In a resolute effort to maintain passenger safety and protect railway services, RPF arrested 28 individuals involved in the perilous act of stone pelting on running trains in November 2023.

- **Assisting Those in Need (Operation Seva):** With a humanitarian approach, RPF provided assistance to 191 elderly, sick, or injured passengers during their rail travels in November 2023.

- **Curbing Illegal Goods Transport (Operation Satark):** Under "Operation Satark," RPF seized illegal tobacco products and illegal liquor worth Rs. 10,54,630 apprehending 67 individuals. These individuals were handed over to the relevant Law Enforcement Agencies.

President Droupadi Murmu flagged off three new trains.

The President of India, Smt Droupadi Murmu flagged off three new trains namely Badampahar – Tatanagar MEMU; Badampahar - Rourkela Weekly Express; and Badampahar - Shalimar Weekly Express from Badampahar Railway Station, Odisha today (November 21, 2023). She also virtually inaugurated the new Rairangpur Postal Division; released a Commemorative Special Cover of Rairangpur Postal Division; and laid the foundation stone for redevelopment of Badampahar Railway station on the occasion.

Amrit Bharat Station Scheme

Amrit Bharat Station Scheme is an ongoing Indian Railways mission launched in February 2023 by Ministry of Railways to redevelop 1275 stations nationwide. It is both enabler and beneficiary of other key Government of India schemes, such as BharatNet, Make in India, Startup India, Standup India, industrial corridors, Bharatmala, Dedicated Freight Corridor Corporation of India and Sagarmala.

Scheme Launched- 6 August 2023

The recent introduction of the Amrit Bharat Station Scheme aims to enhance and modernize railway stations throughout the Indian Railways network. The scheme currently intends to

upgrade and modernise a total of 1275 stations across the Indian railway system. Within this initiative, 18 stations from the Sonpur Division and 20 stations from the Samastipur Division have been singled out for attention.

The Amrit Bharat Station scheme has a long-term vision for the ongoing development of stations. It involves creating master plans and executing them in phases to enhance various station facilities. These enhancements encompass bettering station accessibility, waiting areas, toilet facilities, lift and escalator installations as needed, cleanliness, offering free Wi-Fi, setting up kiosks for local products through initiatives like 'one station one product', enhancing passenger information systems, establishing executive lounges, designating spaces for business meetings, incorporating landscaping, and catering to the unique requirements of each station.

The table below lists all the stations under the project.

SNo	State	Count	Name of Stations
1	Andhra Pradesh	72	Adoni, Anakapalle, Anantapur, Anaparthi , Araku, Bapatla , Bhimavaram Town , Bobbili Jn, Chipurupalli, Chirala, Chittoor, Cuddapah, Cumbum, Dharmavaram, Dhone, Donakonda, Duvvada, Elamanchili , Eluru, Giddalur, Gooty, Gudivada , Gudur, Gunadala , Guntur, Hindupur, Ichchpuram, Kadiri, Kakinada Town , Kottavalasa, Kuppam, Kurnool city , Macherla, Machilipatnam , Madanapalli Road, Mangalagiri, Markapuram Road, Matralayam Road, Nadikude Jn, Nandyal, Narasaraopet, Narsapur , Naupada Jn, Nellore, Nidadavolu, Ongole, Pakala, Palasa, Parvatipuram, Piduguralla, Piler, Rajampet, Rajamundry, Rayanapadu , Renigunta, Repalle, Samalkot , Sattenapalle, Simhachalam, Singaraykonda, Sri Kalahasti, Srikakulam Road, Sullurpeta, Tadepalligudem, Tadipatri, Tenali , Tirupati, Tuni , Vijayawada, Vinukonda, Vishakhapatnam, Vizianagaram Jn
2	Arunachal Pradesh	1	Naharalagun (Itanagar)
3	Assam	49	Amguri, Arunachal, Chaparmukh, Dhemaji, Dhubri, Dibrugarh, Diphu, Duliajan, Fakiragram Jn., Gauripur, Gohpur, Golaghat, Gosai gaon hat, Haibargaon, Harmuti, Hojai, Jagiroad, Jorhat Town, Kamakhya, Kokrajhar, Lanka, Ledo, Lumding, Majbat, Makum Jn, Margherita, Mariani, Murkeongselek, Naharkatiya, Nalbari, Namrup, Narangi, New Bongaigaon, New Haflong, New Karimganj, New

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			Tinsukia, North Lakhimpur, Pathsala, Rangapara North, Rangiya Jn, Sarupathar, Sibsagar Town, Silapathar, Silchar, Simaluguri, Tangla, Tinsukia, Udalguri, Viswanath Chariali
4	Bihar	86	Anugraha Narayan Road, Ara, Bakhtiyarpur, Banka, Banmankhi, Bapudham Motihari, Barauni, Barh, Barsoi Jn, Begusarai, Bettiah, Bhabua Road, Bhagalpur, Bhagwanpur, Bihar Sharif, Bihiya, Bikramganj, Buxar, Chausa, Chhapra, Dalsingh Sarai, Darbhanga, Dauram Madhepura, Dehri On Sone, Dholi, Dighwara, Dumraon, Durgauti, Fatuha, Gaya, Ghorasahan, Guraru, Hajipur Jn, Jamalpur, Jamui, Janakpur Road, Jaynagar, Jehanabad, Kahalgaon, Karhagola Road, Khagaria Jn, Kishanganj, Kudra, Labha, Laheria Sarai, Lakhisarai, Lakhminia, Madhubani, Maheshkhunt, Mairwa, Mansi Jn, Munger, Muzaffarpur, Nabinagar Road, Narkatiaganj, Naugachia, Paharpur, Piro, Pirpainti, Rafiganj, Raghunathpur, Rajendra Nagar, Rajgir, Ram Dayalu Nagar, Raxaul, Sabaur, Sagauli, Saharsa, Sahibpur Kamal, Sakri, Salauna, Salmari, Samastipur, Sasaram, Shahpur Patoree, Shivanarayanpur, Simri Bakhtiyarpur, Simultala, Sitamarhi, Siwan, Sonpur Jn., Sultanganj, Supaul, Taregna, Thakurganj, Thawe
5	Chattisgarh	32	Akaltara, Ambikapur, Baikunthpur Road, Balod, Baradwar, Belha, Bhanupratappur, Bhatapara, Bhilai, Bhilai Nagar, Bhilai Power House, Bilaspur, Champa, Dallirajhara, Dongargarh, Durg, Hathbandh, Jagdalpur, Janjgir Naila, Korba, Mahasamund, Mandir Hasaud, Marauda, Nipania, Pendra Road, Raigarh, Raipur, Rajnandgaon, Sarona, Tilda-Neora, Urkura, Uslapur
6	Delhi	13	Adarshnagar Delhi, Anand Vihar, Bijwasan, Delhi, Delhi Cantt., Delhi Sarai Rohilla, Delhi Shahadra, Hazrat Nizamuddin, Narela, New Delhi, Sabzi Mandi, Safdarjung, Tilak Bridge
7	Goa	2	Sanvordem, Vasco-da-gama
8	Gujarat	87	Ahmedabad, Anand, Ankleshwar, Asarva, Bardoli, Bhachau, Bhaktinagar, Bhanvad, Bharuch, Bhatiya, Bhavnagar, Bhestan, Bhildi, Bilimora (NG), Bilimora Jn, Botad Jn., Chandlodia, Chorvad Road, Dabhoi Jn, Dahod, Dakor, Derol, Dhrangadhra, Dwarka, Gandhidham, Godhra Jn, Gondal, Hapa, Himmatnagar, Jam Jodhpur, Jamnagar, Jamwanthali, Junagadh, Kalol, Kanalus Jn., Karamsad, Keshod, Khambhaliya, Kim, Kosamba Jn., Lakhtar, Limbdi, Limkheda, Mahemadabad & Kheda road, Mahesana, Mahuva, Maninagar, Mithapur, Miyagam Karjan, Morbi, Nadiad, Navsari, New Bhuj, Okha, Padadhari, Palanpur, Palitana, Patan,

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			Porbandar, Pratapnagar, Rajkot, Rajula Jn., Sabarmati (BG & MG), Sachin, Samakhiyali, Sanjan, Savarkundla, Sayan, Siddhpur, Sihor Jn., Somnath, Songadh, Surat, Surendranagar, Than, Udhna, Udvada, Umargaon Road, Unjha, Utran, Vadodara, Vapi, Vatva, Veraval, Viramgam, Vishvamitri Jn., Wankaner
9	Haryana	29	Ambala Cantt., Ambala City, Bahadurgarh, Ballabhgarh, Bhiwani Jn, Charkhi Dadri, Faridabad, Faridabad NT, Gohana, Gurugram, Hisar, Hodal, Jind, Kalka, Karnal, Kosli, Kurukshetra, Mahendragarh, Mandi Dabwali, Narnaul, Narwana, Palwal, Panipat, Pataudi Road, Rewari, Rohtak, Sirsa, Sonipat, Yamunanagar Jagadhari
10	Himachal Pradesh	3	Amb Andaura, Baijnath Paprola, Palampur
11	Jharkhand	57	Balsiring, Bano, Barajamda Jn, Barkakana, Basukinath, Bhaga , Bokaro Steel City , Chaibasa, Chakradharpur, Chandil, Chandrapura, Daltonganj, Dangoaposi, Deoghar, Dhanbad, Dumka, Gamharia, Gangaghat, Garhwa Road, Garhwa Town, Ghatsila, Giridih, Godda, Govindpur Road, Haidarnagar, Hatia, Hazaribagh Road, Jamtara, Japla, Jasidih, Katrasgarh, Koderma, Kumardhubi, Latehar, Lohardaga, Madhupur, Manoharpur, Muhammadganj, Muri, N.S.C.B. Gomoh, Nagaruntari, Namkom, Orga, Pakur, Parasnath, Piska, Rajkharswan, Rajmahal, Ramgarh Cant, Ranchi, Sahibganj, Sankarpur, Silli, Sini, Tatanagar, Tatisilwai, Vidyasagar
12	Karnataka	55	Almatti, Alnavar, Arsikere Junction, Badami, Bagalkot, Ballary, Bangalore Cantt., Bangarpet, Bantawala, Belagavi, Bidar, Bijapur, Chamaraja Nagar, Channapatna, Channasandra, Chikkamagaluru, Chitradurga, Davangere, Dharwad, Dodballapur, Gadag, Gangapur Road, Ghataprabha, Gokak Road, Harihar, Hassan, Hosapete, Kalaburagi, Kengeri, Kopal, Krantivira Sangolli Rayanna (Bengaluru Station), Krishnarajapuram, Malleswaram, Malur, Mandya, Mangalore Central, Mangalore Jn., Munirabad, Mysore, Raichur, Ramanagaram, Ranibennur, Sagar Jambagaru, Sakleshpur, Shahabad, Shivamogga Town, Shree Siddharoodha Swamiji Hubballi Jn, Subramanya Road, Talguppa, Tiptur, Tumakuru, Wadi, Whitefield, Yadgir, Yesvantpur
13	Kerala	34	Alappuzha , Angadippuram, Angamali For Kaladi , Chalakudi , Changanassery, Chengannur , Chirayinikil, Ernakulam, Ernakulam Town, Ettumanur, Ferok, Guruvayur , Kasargod, Kayankulam , Kollam, Kozhikode, Kuttippuram, Mavelikara, Neyyatinkara , Nilambur Road, Ottappalam, Parappanangadi, Payyanur, Punalur, Shoranur Jn., Thalassery, Thiruvananthapuram, Thrisur, Tirur, Tiruvalla , Tripunithura, Vadakara, Varkala, Wadakancheri

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14	Madhya Pradesh	80	Akodia, Amla, Anuppur, Ashoknagar, Balaghat, Banapura, Bargawan, Beohari, Berchha, Betul, Bhind, Bhopal, Bijuri, Bina, Biyavra Rajgarh, Chhindwara, Dabra, Damoh, Datia, Dewas, Gadarwara, Ganjbasoda, Ghoradongri, Guna, Gwalior, Harda, Harpalpur, Hoshangabad, Indore, Itarsi Jn., Jabalpur, Junnor Deo, Kareli, Katni Jn, Katni Murwara, Katni South, Khachrod, Khajuraho, Khandwa, Khirkiya, LaxmiBai Nagar, Maihar, Maksi, Mandlafort, Mandsaur, MCS Chhatarpur, Meghnagar, Morena, Multai, Nagda, Nainpur, Narsinghpur, Neemuch, Nepanagar, Orchha, Pandhurna, Pipariya, Ratlam, Rewa, Ruthiyai, Sanchi, Sant Hirdaram Nagar, Satna, Saugor, Sehore, Seoni, Shahdol, Shajapur, Shamgarh, Sheopur Kalan, Shivpuri, Shridham, Shujalpur, Sihora Road, Singrauli, Tikamgarh, Ujjain, Umaria, Vidisha, Vikramgarh Alot
15	Maharashtra	123	Ahmednagar, Ajni (Nagpur), Akola, Akurdi, Amalner, Amgaon, Amravati, Andheri, Aurangabad, Badnera, Balharshah, Bandra Terminus, Baramati, Belapur, Bhandara Road, Bhokar , Bhusawal, Borivali, Byculla, Chalisgaon, Chanda Fort, Chandrapur, Charni Road, Chhatrapati Shivaji Maharaj Terminus, Chinchpokli, Chinchwad, Dadar, Daund, Dehu Road, Devlali, Dhamangaon, Dharangaon, Dharmabad , Dhule, Diva, Dudhani, Gangakher , Godhani, Gondia, Grant Road, Hadapsar, Hatkanangale, Hazur Sahib Nanded, Himayatnagar , Hinganghat, Hingoli Deccan, Igatpuri, Itwari, Jalna, Jeur, Jogeshwari, Kalyan, Kamptee, Kanjur Marg, Karad, Katol, Kedgaon, Kinwat , Kolhapur, Kopargaon, Kurduwadi, Kurla, Lasalgaon, Latur, Lokmanya Tilak Terminus, Lonand, Lonavla, Lower Parel, Malad, Malkapur, Manmad, Manwath Road , Marine Lines, Matunga, Miraj, Mudkhed , Mumbai Central, Mumbra, Murtajapur, Nagarsol , Nagpur, Nandgaon, Nandura, Narkher, Nasik Road, Osmanabad, Pachora, Pandharpur, Parbhani , Parel, Parli Vaijnath, Partur , Prabhadevi, Pulgaon, Pune Jn., Purna , Raver, Rotegaon , Sainagar Shirdi, Sandhurst Road, Sangli, Satara, Savda, Selu , Sewagram, Shahad, Shegaon, Shivaji Nagar Pune, Solapur, Talegaon, Thakurli, Thane, Titvala, Tumsar Road, Umri, Uruli, Vadala Road, Vidyavihar, Vikhroli, Wadsa, Wardha, Washim, Wathar
16	Manipur	1	Imphal
17	Meghalaya	1	Mehendipathar

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18	Mizoram	1	Sairang (Aizawl)
19	Nagaland	1	Dimapur
20	Odisha	57	Angul, Badampahar, Balangir, Balasore, Balugaon, Barbil, Bargarh Road, Baripada, Barpali, Belpahar, Betnoti, Bhadrak, Bhawanipatna, Bhubaneswar, Bimlagarh, Brahmapur, Brajrajnagar, Chatrapur, Cuttack, Damanjodi, Dhenkanal, Gunupur, Harishanker Road, Hirakud, Jajpur-Keonjhar road, Jaleswar, Jaroli, Jeypore, Jharsuguda, Jharsuguda Road, Kantabanji, Kendujhargarh, Kesinga, Khariar Road, Khurda road, Koraput, Lingaraj Temple Road, Mancheswar, Meramandali, Muniguda, New Bhubaneswar, Panposh, Paradeep, Parlakhemundi, Puri, Raghunathpur, Rairakhol, Rairangpur, Rajgangpur, Rayagada, Rourkela, Sakhi Gopal, Sambalpur, Sambalpur city, Talcher, Talcher Road, Titlagarh Jn.
21	Punjab	30	Abohar, Amritsar, Anandpur Sahib, Beas, Bhatinda Jn, Dhandari Kalan, Dhuri, Fazilka, Firozpur Cantt, Gurdaspur, Hoshiarpur, Jalandhar Cantt., Jalandhar City, Kapurthala, Kotkapura, Ludhiana, Malerkotla, Mansa, Moga, Muktsar, Nangal Dam, Pathankot Cantt., Pathankot City, Patiala, Phagwara, Phillaur, Rup Nagar, Sangrur, SASN Mohali, Sirhind
22	Rajasthan	82	Abu Road, Ajmer, Alwar, Asalpur Jobner, Balotra, Bandikui, Baran, Barmer, Bayana, Beawar, Bharatpur, Bhawani Mandi, Bhilwara, Bijainagar, Bikaner, Bundi, Chanderiya, Chhabra Gugor, Chittorgarh Jn., Churu, Dakaniya Talav, Dausa, Deeg, Degana, Deshnoke, Dholpur, Didwana, Dungarpur, Falna, Fatehnagar, Fatehpur Shekhawati, Gandhinagar Jaipur, Gangapur City, Gogameri, Gotan, Govind Garh, Hanumangarh, Hindaun City, Jaipur, Jaisalmer, Jalor, Jawai Bandh, Jhalawar City, Jhunjhunu, Jodhpur, Kapasan, Khairthal, Kherli, Kota, Lalgarh, Mandal Garh, Mandawar Mahwa Road, Marwar Bhinmal, Marwar Jn., Mavli Jn., Merta Road, Nagaur, Naraina, Nim ka Thana, Nokha, Pali Marwar, Phalodi, Phulera, Pindwara, Rajgarh, Ramdevra, Ramganj Mandi, Rana Pratapnagar, Rani, Ratangarh, Ren, Ringas, Sadulpur, Sawai Madhopur, Shri Mahaveerji, Sikar, Sojat Road, Somesar, Sri ganganagar, Sujangarh, Suratgarh, Udaipur City
23	Sikkim	1	Rangpo
24	Tamil Nadu	73	Ambasamudram, Ambattur, Arakkonam Jn, Ariyalur, Avadi, Bommidi, Chengalpattu Jn, Chennai Beach, Chennai Egmore, Chennai Park, Chidambaram, Chinna Salem, Coimbatore Jn, Coimbatore North, Coonoor, Dharmapuri, Dr. M.G. Ramachandran Central, Erode Jn., Guduvancheri, Guindy, Gummidipundi, Hosur, Jolarpettai Jn, Kanniyakumari, Karaikkudi, Karur Jn., Katpadi,

			Kovilpatti, Kulitturai, Kumbakonam, Lalgudi, Madurai Jn, Mambalam, Manaparai, Mannargudi, Mayiladuturai Jn., Mettupalayam, Morappur, Nagercoil Jn., Namakkal, Palani, Paramakkudi, Perambur, Podanur Jn., Pollachi, Polur, Pudukkottai, Rajapalayam, Ramanathapuram, Rameswaram, Salem, Samalpatti, Sholavandan, Srirangam, Srivilliputtur, St.Thomas Mount, Tambaram, Tenkasi, Thanjavur Jn, Thiruvarur Jn., Tiruchendur, Tirunelveli Jn, Tirupadripulyur, Tirupattur, Tiruppur, Tiruttani, Tiruvallur, Tiruvannamalai, Udagamandalam, Vellore Cantt., Villupuram Jn., Virudhunagar, Vriddhachalam Jn.
25	Telangana	39	Adilabad, Basar, Begumpet, Bhadrachalam Road, Gadwal, Hafizpeta, Hi-tech city, Huppuguda, Hyderabad, Jadcherla, Jangaon, Kacheguda, Kamareddi, Karimnagar, Kazipet Jn, Khammam, Lingampalli, Madhira, Mahabubabad, Mahbubnagar, Malakpet, Malkajgiri, Manchiryal, Medchal, Miryalaguda, Nalgonda, Nizamabad, Peddapalli, Ramagundam, Secunderabad, Shadnagar, Sri Bala Brahmeswara Jogulamba, Tandur, Umdanagar, Vikarabad, Warangal, Yadadri, Yakutpura, Zahirabad
26	Tripura	4	Agartala, Dharmanagar, Kumarghat, Udaipur
27	UT of Chandigarh	1	Chandigarh
28	UT of Jammu & kashmir	4	Budgam, Jammu Tawi, Shri Mata Vaishno Devi Katra, Udhampur
29	UT of Puducherry	3	Karaikal, Mahe, Puducherry
30	Uttar Pradesh	149	Achnera, Agra Cantt., Agra Fort, Aishbagh, Akbarpur Jn, Aligarh, Amethi, Amroha, Ayodhya, Azamgarh, Babatpur, Bachhrawan, Badaun, Badshahnagar, Badshahpur, Baheri, Bahraich, Ballia, Balrampur, Banaras, Banda, Barabanki Jn, Bareilly, Bareilly City, Barhni, Basti, Belthara Road, Bhadohi, Bharatkund, Bhatni, Bhuteshwar, Bulandsahar, Chandauli Majhwar, Chandausi, Chilbila, Chitrakut dham karwi, Chopan, Chunar Jn., Daliganj, Darshannagar, Deoria Sadar, Dildarnagar, Etawah Jn., Farrukhabad, Fatehabad, Fatehpur, Fatehpur Sikri, Firozabad, Gajraula, Garhmukteshwar, Gauriganj, Ghatampur, Ghaziabad, Ghazipur City, Gola Gokarnath, Gomtinagar, Gonda, Gorakhpur, Govardhan, Govindpuri, Gursahaiganj, Haidergarh, Hapur, Hardoi, Hathras City, Idgah, Izzatnagar, Janghai Jn, Jaunpur City, Jaunpur Jn, Kannauj, Kanpur Anwarganj, Kanpur Bridge Left bank, Kanpur Central, Kaptanganj,

			Kasganj, Kashi, Khalilabad, Khurja Jn., Kosi Kalan, Kunda Harnamganj, Lakhimpur, Lalganj, Lalitpur, Lambhua, Lohta, Lucknow (Charbagh), Lucknow city, Maghar, Mahoba, Mailani, Mainpuri Jn., Malhaur Jn, Manaknagar Jn, Manikpur Jn., Mariahu, Mathura, Mau, Meerut City, Mirzapur, Modi Nagar, Mohanlalganj, Moradabad, Nagina, Najibabad Jn., Nihalgarh, Orai, Panki Dham, Phaphamau Jn, Phulpur, Pilibhit, Pokhrayan, Pratapgarh Jn, Prayag Jn, Prayagraj, Pt. Deen Dayal Upadhyay , Raebareli Jn, Raja Ki Mandi, Ramghat Halt, Rampur, Renukoot, Saharanpur, Saharanpur Jn., Salempur, Seohara, Shahganj Jn, Shahjahanpur, Shamli, Shikohabad Jn., Shivpur, Siddharth nagar, Sitapur Jn., Sonbhadra, Sri Krishna Nagar, Sultanpur Jn, Suraimanpur, Swaminarayan Chappia, Takia, Tulsipur, Tundla Jn., Unchahar, Unnao Jn, Utraitia Jn, Varanasi Cantt., Varanasi City, Vindhyachal, Virangana Lakshmibai, Vyasnagar, Zafarabad
31	Uttarakhand	11	Dehradun, Haridwar Jn., Harrawala, Kashipur, Kathgodam, Kichha, Kotdwar, Lalkuan Jn., Ramnagar, Roorkee, Tanakpur
32	West Bengal	94	Adra , Alipur duar Jn., Aluabari Road, Ambika kalna, Anara, Andal Jn., Andul, Asansol Jn., Azimganj, Bagnan, Bally, Bandel Jn., Bangaon Jn., Bankura , Barabhum, Barddhaman, Barrackpore, Belda, Berhampore court, Bethuadahari, Bhaluka Road, Binnaguri, Bishnupur, Bolpur Shantiniketan, Burnpur, Canning, Chandan nagar, Chandpara, Chandrakona Road, Dalgaon, Dalkhola, Dankuni, Dhulian Ganga, Dhupguri, Digha, Dinhata, DumDum Jn., Falakata, Garbeta, Gede, Haldia, Haldibari, Harishchandrapur, Hasimara, Hijli, Howrah, Jalpaiguri, Jalpaiguri Road, Jangipur Road, Jhalida, Jhargram, Joychandi pahar, Kaliyaganj, Kalyani Ghoshpara, Kalyani Jn., Kamakhyaguri, Katwa Jn., Khagraghat Road, Kharagpur, Kolkata, Krishnanagar City Jn, Kumedpur, Madhukunda, Malda Court, Malda Town, Mecheda, Midnapore, Nabadwip Dham, Naihati Jn., New Alipurduar, New Cooch Behar, New Farakka, New Jalpaiguri, New Mal Jn., Panagarh, Pandabeswar, Panskura, Purulia Jn., Rampurhat, Sainthia Jn, Salboni, Samsi, Sealdah, Shalimar, Shantipur, Sheoraphuli Jn., Sitarampur, Siuri, Sonarpur Jn., Suisa, Tamluk, Tarakeswar, Tulin, Uluberia
Total	**32**		**1275**

Indian Railways achieves 1015.6 MT Freight Loading till November 2023

·Freight loading increases by 36.9 MT as compared to the same period of last year.

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·Railways earns Rs 110007.5 Crores from Freight loading during April- November 2023

·Freight Earnings increases by Rs 4102.4 Crores as compared to the same period last year

·Railways achieves Freight Loading of 128.4 MT in November 2023- an improvement of 4.3% over last year's freight loading for the same period

On cumulative basis from April – November 2023, freight loading of 1015.669 MT was achieved by Indian Railways against last year's loading of 978.724 MT, an improvement of approximate 36.945 MT over last year's loading for the same period. Railways have earned Rs 110007.5 crore against Rs 105905.1 crore over the last year which is an improvement of approx Rs 4102.445 Crore as compared to the same period of the last year.

During the month of November 2023, originating freight loading of 128.419 MT has been achieved against loading of 123.088 MT in November 2022, which is an improvement of about 4.33% over the last year. Freight revenue of Rs. 14077.94 Crores has been achieved in November 2023 against Rs 13559.83 Cr freight earnings in November 2022, thereby showing an improvement of about 3.82% over the last year.

Indian Railways achieved loading of 65.48 MT in Coal, 14.99 MT in Iron Ore, 5.25 MT in Pig Iron and Finished Steel, 5.58 MT in Cement (Excl. Clinker), 4.61 MT in Clinker, 3.82 MT in Foodgrains, 5.97 MT in Fertilizers, 4.176 MT in Mineral Oil, 6.91 MT in Containers and 8.59 MT in Balance Other Goods during November, 2023.

Following the Mantra, "Hungry For Cargo", IR has made sustained efforts to improve the ease of doing business as well as improve the service delivery at competitive prices. The customer centric approach and work of Business Development Units backed up by agile policy making helped Railways towards this significant achievement.

DFCCIL

The Dedicated Freight Corridor Corporation of India Limited (DFCCIL) is a public sector undertaking which undertakes planning, development, and mobilisation of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors.

DFCCIL is both enabler and beneficiary of other key Government of India schemes, such as Industrial corridor, Make in India, Startup India, Standup India, Sagarmala, Bharatmala, UDAN-RCS, Digital India, BharatNet, Parvatmala.

DFCCIL has been designated by the Government of India as a Govt. of India(Ministry of Railways) Enterprise, and has been created to undertake planning & development,

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mobilisation of financial resources and construction, maintenance and operation of the Dedicated Freight Corridors. DFCCIL has been registered as a company under the Companies Act 1956 on 30 October 2006.

DFCCIL Founded: 30 October 2006

DFCCIL Chairman: Jaya Varma Sinha

DFCCIL Managing Director: Ravindra Kumar Jain

DFCCIL Headquarters: New Delhi

Corridor	Length	Status	Start Point	Termination Point	Logistic Hub
Western	1,504 km (935 mi)	Partly Operational	Dadri	JNPT, Nava Sheva	
Eastern	1,873 km (1,164 mi)	Partly operational	Ludhiana	Son Nagar	Meerut
East-West	2,000 km (1,200 mi)	Announced in Budget 2021–22	Dankuni	Bhusawal	
North-South	975 km (606 mi)	Announced in Budget 2021–22	Vijayawada	Itarsi	
East Coast	1,115 km (693 mi)	Announced in Budget 2021–22	Kharagpur	Vijayawada	
Southern	892 km (554 mi)	Proposed	Madgaon	Chennai	
Total	8,359 km (5,194 mi)	2/6			

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Partly opened
Approved
Proposed

Source- Wikipedia

Previous Year Question Papers

Q1. In which year was the first Railway Budget presented in India during the British Period?

a) 1932

b) 1920

c) 1928

d) 1924

Ans: d) 1924

Q2. How many zones are there in Indian Railways, excluding Metro Rail?

a) 12

b) 10

c) 14

d) 16

Ans: d) 16

Q3. Which is the longest running train of the Indian Railways?

a) Himsagar Express- Jammu Tawi to Kanyakumari

b) Humsafar Express- Agartala to Bengaluru Cantonment

c) Navyug Express- Mangaluru to Jammu

d) Vivek Express- Dibrugarh to Kanyakumari

Ans: d) Vivek Express- Dibrugarh to Kanyakumari

Q4. What is the total route length of Indian Railways as of 31st March 2017?

a) 87,368 Km

b) 67,368 Km

c) 77,368 Km

d) 57,368 Km

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Ans: b) 67,368 Km

Q5. How many railway stations are planned to be redeveloped by Indian Railway Station Development Corporation Ltd. as per the Rail Budget of 2018?

a) 600

b) 400

c) 500

d) 700

Ans: a) 600

Q6. Where is the Integral Coach Factory of Indian Railways situated?

a) Varanasi

b) Chennai

c) Patiala

d) Bengaluru

Ans: b) Chennai

Q7. In which year was the computer reservation system started by the Indian Railways?

a) 1989

b) 1986

c) 1995

d) 1992

Ans: b) 1986

Q8. Which of the following is the longest railway bridge in India?

a) Vembanad Bridge

b) Godavari Arch Bridge

c) Havelock Bridge

d) Nehru Setu

Ans: a) Vembanad Bridge

Q9. Which of the following railway station has the highest number of railway platforms in India?

a) New Delhi

b) Howrah

c) Chhatrapati Shivaji Terminus, Mumbai

d) Chennai Centarl

Ans: b) Howrah

Q10. As of October 2018, who is the Chairman of the Railway Board?

a) SN Agarwal

b) Girish Pillai

c) Ashwani Lohani

d) AK Mittal

Ans: c) Ashwani Lohani

Q11. Between which of the following sets of stations did the first passenger train run in India?

a) Mumbai and Vadodara

b) Mumbai and Thane

c) Howrah and Chittaranjan

d) Howrah and Asansol

Ans: b) Mumbai and Thane

Q12. What is the total number of railway stations in India as of 31st March 2017?

a) 8349

b) 10349

c) 7349

d) 9349

Ans: c) 7349

Q13. In which city is the National Academy of Indian Railways situated?

a) Secunderabad

b) Pune

c) Vadodara

d) Jamalpur

Ans: c) Vadodara

Q14. What is the normal advance reservation period for booking accommodation in trains of Indian Railways as of October 2018?

a) 60 Days

b) 120 Days

c) 30 Days

d) 90 Days

Ans: b) 120 Days

Q15. In September 2018, which country rolled out the world's first hydrogen-powered train? It is touted to be an eco-friendly train.

a) Germany

b) China

c) USA

d) France

Ans: a) Germany

Q16. India's first high speed electric locomotive with 1200 horsepower was built in April 2018. In which of the following railway factories was it built at?

a) Madhepura

b) Varanasi

c) Chittaranjan

d) Patiala

Ans: a) Madhepura

Q17. How much freight revenue was earned by Indian Railways during the financial year 2017-18?

a) Rs. 1.32 lakh crore

b) Rs. 1.17 lakh crore

c) Rs. 1.27 lakh crore

d) Rs. 1.22 lakh crore

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Ans: b) Rs. 1.17 lakh crore

Q18. Which of the following is the biggest revenue earning comodity through freight traffic for Indian Railways?

a) Fertiliser

b) Cement

c) Coal

d) Food Grains

Ans: c) Coal

Q19. In which city is the Rail Wheel Factory of the Indian Railways situated?

a) Chennai

b) Hyderabad

c) Varanasi

d) Bengaluru

Ans: d) Bengaluru

Q20. Who isthe chairman of the Dedicated Freight Corridor Corporation of India Limited (as of October 2018)?

a) Anshuman Sharma

b) Naresh Salecha

c) DS Rana

d) Ashwani Lohani

Ans: d) Ashwani Lohani

Q21. In which city is the National Rail Museum situated?

a) New Delhi

b) Bengaluru

c) Patna

d) Lucknow

Ans: a) New Delhi

Q22. What is the proposed train load under Dedicated Freight Corridor?

a) 12000 tonnes

b) 10000 tonnes

c) 13000 tonnes

d) 11000 tonnes

Ans: c) 13000 tonnes

Q23. Which of the following railway station has the world's longest railway platform?

a) Gorakhpur

b) Bilaspur

c) Jhansi

d) Kharagpur

Ans: a) Gorakhpur

Q24. Which of the following is NOT among the names of three railway engines that were used to draw the first passenger train in India?

a) Sindh

b) Sahib

c) Sohana

d) Sultan

Ans: c) Suhana