

AIR Spotlight: Year End Review of the Ministry of Railways, Communications, Electronics and I.T.

AIR Spotlight is an insightful program featured daily on the All India Radio Newsonair. In this program, many eminent panellists discuss issues of importance which can be quite helpful in IAS exam preparation.

This article features an exclusive interview with the Union Minister, Ashwini Vaishnaw on 'Initiatives and Achievements of the Ministry of Railways, Communications, Electronics and Information Technology'.

Participants

- Ashwini Vaishnaw - The Union Minister of Railways, Communications, Electronics and Information Technology.
- Bhupendra Singh - AIR Correspondent.

The Ministry of Railways - National Railway Plan

- Vision 2024 has been launched as a part of the [National Rail Plan \(NRP\)](#) to accelerate the implementation of specific critical projects by 2024, to develop capacity infrastructure, increase rail freight share ahead of demand, and develop capacity by 2030 that will cater to growing demand up to 2050.
- Vision 24 includes 100% electrification, new lines along high-density networks, increasing speed to 160 kmph on Delhi-Howrah and Delhi-Mumbai routes, increasing speed to 130 kmph on all other Golden Quadrilateral-Golden Diagonal (GQ/GD) routes, and eliminating all level crossings on all GQ/GD routes. When wholly implemented, this National Rail Plan will gradually shift Indian Railways' freight model share from 27% to 45%.
- 58 Supercritical Projects of a total length of 3750 km and 68 Critical Projects of a total length of 6913 km have been identified for completion by 2024.

Atmanirbhar Bharat Abhiyan in Railways -

The [Atmanirbhar Bharat Abhiyan](#) aims to boost local industries in every sphere of the economy. In railways, there is a huge thrust on developing Indian technologies. Some of the initiatives by Indian Railways in the field of Atmanirbhar Bharat are discussed below.

Vande Bharat Trains -

- They are indigenously designed and manufactured semi-high speed, self-propelled trains that are touted as the next major leap for the Indian Railways in terms of speed and passenger convenience since the introduction of the Rajdhani trains.

- The first Vande Bharat was manufactured by the Integral Coach Factory (ICF), Chennai, as part of the '[Make in India](#)' programme, at a cost of about Rs. 100 crore.
- Six modern Vande Bharat Trains are presently running in service.
- These trains are designed for 35 years, and with the upgradation of tracks, the trains can run at faster speeds.

Kavach System

- Kavach is an indigenously developed automatic train protection system to boost safety in train operations.
- The KAVACH technology, in more technical terms, is known as Train Collision Avoidance System (TCAS) or Automatic Train Protection System (ATP) system. It is aimed at bringing down the number of rail accidents to zero.
- The Indian Railways has taken up the deployment of Kavach on the Delhi-Mumbai & Delhi-Howrah corridors (around 3000 km).

High-Speed Forged Wheels for Trains -

The entire demand of the railways (of wheels) will be met by domestically manufactured wheels. This will help reduce dependence on imports making India 'Atma Nirbhar' in the production of forged wheels.

- Visakhapatnam-based Rashtriya Ispat Nigam Ltd (RINL) has set up a plant in Rae Bareilly with a production capacity of one lakh pieces of forged wheels per annum.

One Station One Product (OSOP) Scheme

One Station One Product scheme was announced in the [Union Budget 2022-23](#). This scheme aims to provide opportunities for enhanced livelihood through skill development to local artisans, potters, weavers/handloom weavers, craftsmen, etc., through the provision of sale outlets at Railway Stations across the country.

Major Upgradation of Railway Stations -

- 57 stations have been identified for redevelopment under 'Major Upgradation of Railway Stations' on Indian Railways including Gaya, Bapudham Motihari and Muzaffarpur Railway stations in the state of Bihar.
- Modernization and upgradation of railway stations and amenities is a continuous and ongoing process for Indian Railways and these works are carried out through the Plan-Head Customer Amenities (PH-53).

Diamond Quadrilateral Project

The Diamond Quadrilateral is an ambitious project of the Indian Railways to establish a high-speed rail network in India. This quadrilateral will connect the four metro cities in India, i.e. Delhi, Mumbai, Chennai and Kolkata. This project is similar to Golden Quadrilateral which is a roadway project connecting the four metros by ExpressWays.

- The Diamond Quadrilateral Project was announced by the Union Government which would connect Delhi, Mumbai, Kolkata and Chennai through bullet trains. The major corridors that would have bullet trains are -
 - Delhi-Mumbai corridor
 - Delhi-Kolkata corridor
 - Mumbai-Chennai corridor
 - Kolkata-Chennai corridor
 - Delhi-Chennai corridor
 - Mumbai-Kolkata corridor
- The first corridor is the Mumbai-Ahmedabad bullet train corridor. There will be 12 stations along the route of the bullet train, including eight in Gujarat and four in Maharashtra. The work on this corridor is in progress.
 - The high-speed bullet train is expected to cover the 508-km journey from Ahmedabad to Mumbai in 2 hours and 58 minutes, as against the current travel time of over six hours.

5G Technology in India

- The Prime Minister of India launched 5G services in October 2022. With [5G](#), India is setting a global standard in telecom technology for the first time. 5G technology offers a wide range of benefits to the common people. It helps in providing seamless coverage, high data rates, low latency, and highly reliable communications. Also, it increases energy efficiency, spectrum efficiency and network efficiency. 5G technology helps in connecting billions of [Internet of Things](#) devices.
- More than 50 cities have been added to the 5G network. An aggressive target of 24 - 36 months has been kept to cover at least 80% of the country.

Telecom Bill, Digital Personal Data Protection Bill (DPDP) and Digital India Bill.

As India's digital space is expanding at a very rapid pace with new technologies and new players, these bills will not only address the present issues but will also provide a future-ready law.

- The Telecom Bill would be applicable to entities that provide telecom services, operate telecom networks, own telecom equipment and infrastructure and are assigned or seeking assignment of spectrum. This would cover entities, Over-The-Top (OTT) platforms and other service providers.

India Semiconductor Mission

The GoI approved the [India Semiconductor Mission \(ISM\)](#) with a total outlay of INR 76,000 crore for the development of the semiconductor and display manufacturing ecosystem in our country. The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystems. This will serve to pave the way for India's growing presence in the global electronics value chains.