

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1538**  
**ANSWERED ON 01.08.2025**

**EFFORTS TO MODERNIZE RAIL INFRASTRUCTURE**

1538 # SHRI GHANSHYAM TIWARI:

Will the Minister of RAILWAYS be pleased to state:

- (a) the progress in the broad gauge electrification of Indian Railways, the details thereof;
- (b) the number of stations being modernized under the station redevelopment project, the details thereof; and
- (c) whether there is any significant technological upgrade in track capacity, bridge construction and signal system, if so, the details thereof?

**ANSWER**

MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND  
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

(a) to (c) Electrification of railway network on Indian Railways has been taken up in mission mode. So far, about 99% of Broad Gauge (BG) network has been electrified. The electrification in remaining network has been taken up. Electrification carried out during 2014-25 and before 2014 is as under:

<b>Period</b>	<b>Route Kilometer</b>
Before 2014 (about 60 years)	21,801
2014-25	46,900

Ministry of Railways has launched Amrit Bharat Station Scheme for development of stations on a continuous basis with a long-term approach. It involves preparation of master plans and their implementation in phases to improve the amenities at the stations like improvement of station access, circulating areas, waiting halls, toilets, lift/escalators as necessary, platform surfacing and cover over platform, cleanliness, free Wi-Fi, kiosks for local products through schemes like 'One Station One Product', better passenger information systems, executive lounges, nominated spaces for business meetings, landscaping, etc. keeping in view the necessity at each station.

The scheme also envisages improvement of building, integrating the station with both sides of the city, multimodal integration, amenities for Divyangjans, sustainable and environment friendly solutions, provision of ballastless tracks etc. as per necessity, phasing and feasibility and creation of city centre at the station in the long term.

So far, 1337 stations have been identified for development under this scheme. Development works at railway stations across the country under Amrit Bharat Station Scheme have been taken up at a good pace. Till now, phase-1 works of 105 stations across the country have been completed under this scheme.

Development / Redevelopment / Upgradation / Modernisation of stations on Indian Railways is a continuous and ongoing process and works in this regard are undertaken as per requirement, subject to inter-se priority and availability of funds. The priority for development / redevelopment / upgradation / modernisation of stations is accorded to higher category of station over lower category of station while sanctioning and executing the works.

Significant technical upgrade in Railway Bridges Construction have been adopted, such as use of High Strength Friction Grip (HSFG) bolts, self locking nuts, U-shape girder of 18.3 m span, large standard span of 91.4 m & 106.7 m, 3D modeling & GIS mapping etc. in the planning design & construction of Railway Bridges. Indian Railways continuously upgrades and modernises its signaling system to enhance safety. In this regards some of the steps taken are as follows:

- i. Electrical/Electronic Interlocking Systems with centralized operation of points and signals in place of old mechanical signalling have been provided at 6635 stations as on 30.06.2025.
- ii. Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at 6640 stations upto 30.06.2025.
- iii. Interlocking of Level Crossing Gates (LC) has been provided at 11096 Level Crossing Gates upto 30.06.2025 for enhancing safety at LC Gate.
- iv. Axle counters for automatic clearance of Block Section, BPAC (Block Proving Axle Counter) are provided to ensure complete arrival of train without manual intervention before granting line clear to receive next train and to reduce human element. These systems have been provided on 6147 Block Sections up to 30.06.2025.
- v. Automatic Block Signalling (ABS) has been provided at 5757 Route km upto 30.06.2025.
- vi. Indian Railways has also gone for implementation of advance technology system "Kavach" as an Automatic Train Protection (ATP) system. Kavach is indigenously developed Automatic Train Protection (ATP) system which required safety certification of highest order. Kavach has also been adopted as a National ATP system in July 2020.