

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 3943
ANSWERED ON 04.04.2025

SLOWDOWN IN AVERAGE SPEED OF VANDE BHARAT EXPRESS TRAINS

3943. SMT. RANJEET RANJAN:

Will the Minister of RAILWAYS be pleased to state:

- (a) the reasons for the slowdown in the average speed of Vande Bharat trains over the years despite their design capability to operate at higher speeds;
- (b) Government's assessment of infrastructure-related challenges including track conditions and terrain that prevent the Vande Bharat trains from achieving their designed speed on most routes;
- (c) the steps being taken to address issues such as ongoing track upgrades, difficult terrains and seasonal weather impacts to improve operational speeds across all Vande Bharat routes; and
- (d) the progress made in enhancing rail infrastructure under Government's modernisation initiatives to support semi-high-speed and high-speed rail travel?

ANSWER

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

(SHRI ASHWINI VAISHNAW)

(a) to (d) Vande Bharat coaches are designed to operate up to speed of 160 kmph. However, the speed of a train depends not only on type of rolling stock but also on track structure available along the route, geometry of the route, topographical conditions etc.

Upgradation and improvement of track infrastructure is a continuous and ongoing process over Indian Railways. The railway tracks having speed potential of 110 kmph and 130 kmph have improved significantly over the years. The details are as under:

Speed potential of 110 kmph and above	
2014	~ 31,000 km
2025 (till now)	~ 80,000 km (more than 2.5 times)

Speed potential of 130 kmph	
2014	~ 5,000 km
2025 (till now)	~ 23,000 km (more than 4.6 times)

The following measures have been taken by Indian Railways to upgrade railway tracks:

- (i) Use of modern track components consisting of 60kg, 90 Ultimate Tensile Strength (UTS) rails, Pre-stressed Concrete Sleeper (PSC) Normal/Wide base sleepers with modern elastic fastenings.
- (ii) Laying of fan-shaped turnout on PSC sleepers with Thick Web Switches and Weldable CMS Crossings.
- (iii) Providing Steel Channel/H-beam Sleepers on girder bridges while carrying out primary track renewals.
- (iv) Use of 130m/260m long rail panels for rail renewals to minimize weld- joints.
- (v) Field-welding by mobile Flash Butt Welding Plant and advanced USFD Testing technique of Rail/ Welds by Phased array technology.
- (vi) Mechanization in Track renewal/ replacement using Track Relaying Trains, Points & Crossing Changing machines, Track laying Equipment etc.
- (vii) Deployment of Integrated Track Monitoring Systems (ITMS) and Oscillation Monitoring System (OMS) for comprehensive health assessment to project optimal maintenance requirements.
- (viii) Induction of advance modern machines for track maintenance i.e., high output tampers, high output Ballast Cleaning Machines and Rail Grinding machines etc.
- (ix) Adopting Self-propelled Ultrasonic Rail Testing Car (SPURT) and Rail Cum Road Vehicle (RCRV) based USFD system for testing of rails/welds.
- (x) Easing out of sharp curves.
- (xi) Using web enabled Track Management System (TMS) for integration and data analytics of the track inspection records received through various sources to enable precise maintenance inputs.