

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 113**  
**ANSWERED ON 02.02.2024**

**COMMISSIONING OF KAVACH**

113 SHRI SUSHIL KUMAR MODI:

Will the Minister of RAILWAYS be pleased to state:

- (a) the length of tracks in KM on which Kavach has been commissioned in last three years;
- (b) by when Kavach system will get Safety Integrity Level 4 certification for additional routes;
- (c) by when Railway will commission AI based intrusion detection system to prevent accident involving elephants;
- (d) the status of punctuality of trains in last three years; and
- (e) how much electrification has been achieved as on date and details of saving of diesel and extent of reduction in carbon emission as a result of electrification?

**ANSWER**

MINISTER OF RAILWAYS, COMMUNICATIONS AND  
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

(a) to (e) : A Statement is laid on the Table of the House.

\*\*\*\*\*

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 113 BY SHRI SUSHIL KUMAR MODI ANSWERED IN RAJYA SABHA ON 02.02.2024 REGARDING COMMISSIONING OF KAVACH.**

(a)

1. Kavach has so far been deployed on 1465 Route km and 139 locomotives (including Electric Multiple Unit rakes) on South Central Railway.
2. Presently Kavach tenders have been awarded for Delhi–Mumbai & Delhi–Howrah corridors (approximately 3000 Route km). The progress of main items related to Kavach is as under:
  - (i) Laying of Optical Fibre Cable : 3040 Km
  - (ii) Installation of Telecom Towers : 269 Nos.
  - (iii) Provision of equipment at Stations : 186 Nos.
  - (iv) Provision of equipment in Loco : 170 Locos
  - (v) Installation of Track side equipments : 827 Route Km.

(b) Kavach system is certified for Safety Integrity Level-4. Further, the certification by Independent Safety Assessor (ISA) is conducted at the time of commissioning, once the whole section is fully equipped and tested.

(c) Works for provision of Intrusion Detection System to prevent accident involving Elephants have been commissioned on 48 Route Km already identified vulnerable sections over Northeast Frontier Railway. Further, based on vulnerability of the locations where elephant movements happen frequently over the tracks, works have also been sanctioned on Indian Railway.

(d) The average punctuality of Mail/Express train services during 2020-21 to 2022-23 was 88.48%.

(e) Railway network on Broad Gauge has been electrified on 61508 Route Km (93.83%) upto 31.12.2023.

IR has witnessed reduction in HSD consumption for Diesel locos by 44.64% in the year 2021-22 as compared 2018-19.

\*\*\*\*\*