

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**LOK SABHA  
UNSTARRED QUESTION NO. 2597  
TO BE ANSWERED ON 07.08.2024**

**COVERAGE OF KAVACH IN INDIAN RAILWAYS**

**2597. DR. KALANIDHI VEERASWAMY:**

**Will the Minister of RAILWAYS be pleased to state:**

- (a) the details of total locomotives in Indian Railways equipped with Kavach along with the total track kilometers under control of Railways covered by Kavach Railways till date;**
- (b) the annual target for implementation of Kavach in terms of kilometers of track and number of Locomotives and Golden Quadrilateral of Indian Railways from 2021-22 onwards till expected year of completion along with the target and the achievement in respect of coverage in the year 2021-22, 2022-23, 2023-24 and in 2024 till date;**
- (c) whether it is a fact that Kavach would have been able to prevent the accident of Coramandel Express at Balasore and Kanchanjunga Express; and**
- (d) the cost of installation of Kavach per kilometer and for a locomotive?**

**ANSWER**

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

**(SHRI ASHWINI VAISHNAW)**

**(a) to (d): A statement is laid on the Table of the House.**

**\*\*\*\*\***

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.2597 BY DR. KALANIDHI VEERASWAMY TO BE ANSWERED IN LOK SABHA ON 07.08.2024 REGARDING COVERAGE OF KAVACH IN INDIAN RAILWAYS**

**(a) to (d):**

- 1. Kavach is an indigenously developed Automatic Train Protection (ATP) system. Kavach is a highly technology intensive system, which requires safety certification of highest order.**
- 2. Kavach aids the loco pilot in train running within specified speed limits by automatic application of brakes in case Loco Pilot fails to do so and also helps the train to run safely during inclement weather.**
- 3. Implementation of Kavach involves execution of many activities, such as:**
  - a. Installation of Station Kavach at each and every station.**
  - b. Installation of RFID tags throughout the track length.**
  - c. Installation of Telecom Towers throughout the section.**
  - d. Laying of optical Fibre cable along the track.**
  - e. Provision of Loco Kavach on each and every Locomotive running on Indian Railways.**
- 4. Kavach has so far been deployed on 1465 Route km and 144 locomotives on South Central Railway.**
- 5. Presently, the progress of main items related to Kavach on Delhi-Mumbai & Delhi-Howrah corridors (approximately 3000 Route km) is as under :**
  - (i) Laying of Optical Fibre Cable: 4275 Km**
  - (ii) Installation of Telecom Towers: 364 Nos.**
  - (iii) Provision of Station Equipment: 285 Nos.**

- (iv) Provision of equipment in Loco: 319 Locos**
- (v) Installation of Track side equipments: 1384 Route Km.**
- 6. Indian Railways has also prepared Detailed Project Report (DPR) and Detailed Estimate on another 6000 RKm.**
- 7. On 16.07.2024, Kavach 4.0 specification has been approved by RDSO. This version covers all the major features required for the diverse railway network. This is a significant milestone in safety for Indian Railways. Within a short period, IR has developed, tested and started deploying Automatic Train Protection System.**
- 8. Kavach is provided progressively in phased manner.**
- 9. To increase capacity and scale up implementation, trials and approval of more OEMs are at different stages.**
- 10. The Cost for provision of Track side including Station equipment of Kavach is approximately Rs. 50 Lakhs/Km and cost for provision of Kavach equipment on locomotives is approximately Rs. 70 lakh/ loco. The funds utilized on Kavach works so far is ₹1216.77 Cr. The allocation of funds during the year 2024-25 is ₹1112.57 Cr.**
- 11. Balasore train accident is not linked with the provision of Kavach.**
- 12. Kanchanjunga Express accident took place in New Jalpaiguri - Barsoi - Malda Town section. Commission of Railway Safety (CRS) Inquiry has been ordered in case of Kanchanjunga Express train accident and the final report is awaited.**

\*\*\*\*\*