

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 293
ANSWERED ON 21.07.2023

RAILWAY ROUTES UNDER KAVACH SYSTEM

293. PROF. MANOJ KUMAR JHA:

Will the Minister of RAILWAYS be pleased to state:

- (a) details of Kavach system of the Indian railways;
- (b) the details of total railway route brought under Kavach system in India;
- (c) whether any testing has been done by Government on the functionality of the Kavach system;
- (d) the details of total expenditure incurred by Government on developing the Kavach system;
- (e) the deadline stipulated by Government for the completion of the said project;
- (f) whether there has been any delay in completion of Kavach project; and
- (g) if so, the reasons therefore?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

(a) to (g)

1. Kavach is 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 help the train safely run during inclement weather.

3. The first field trials on the passenger trains were started in February 2016. Based on the experience so gained and Independent Safety Assessment of the system by a 3rd party (Independent Safety Assessor: ISA) three firms were approved in 2018-19, for supply of Kavach.
4. Subsequently Kavach was adopted as a National ATP system in July 2020.
5. Kavach has so far been deployed on 1465 Route km and 121 locomotives (including Electric Multiple Unit rakes) on South Central Railway.
6. Kavach tenders have been awarded for Delhi – Mumbai & Delhi – Howrah corridors (approximately 3000 Route km) and work is in progress on these routes.
7. Indian Railways is preparing Detailed Project Report (DPR) and detailed estimate for another 6000 Rkm.
8. The amount spent so far on Kavach implementation is Rs.351.91 Crores. 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 loco is approximately Rs. 70 lakh/ loco.
9. Presently there are three Indian Original Equipment Manufacturers (OEMs) who are approved for Kavach. Efforts are being made to develop more vendors to enhance the capacity and scale up the implementation of Kavach.
