

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 423
TO BE ANSWERED ON 24.07.2024**

KAVACH SYSTEM IN INDIAN RAILWAYS

423. SHRI ANAND BHADAURIA:

Will the Minister of RAILWAYS be pleased to state:

- (a) the details of railway accidents took place in the country during 2022-23, 2023-24 and 2024-25, along with number of passengers died/injured in these accidents, year and zone-wise;**
- (b) the number of persons died in collision of Kanchanjunga Express with a goods train in Darjeeling district in June, 2024 along with the ex-gratia paid to victims of accident;**
- (c) the reasons for non-installation of anti- collision device, KAVACH on each route/train of Railways; and**
- (d) the details of fund allocated, released and utilized for installation of KAVACH system in Indian Railways during 2020-21, 2021-22, 2022-23 2023-24, year and zone-wise?**

ANSWER

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

(SHRI ASHWINI VAISHNAW)

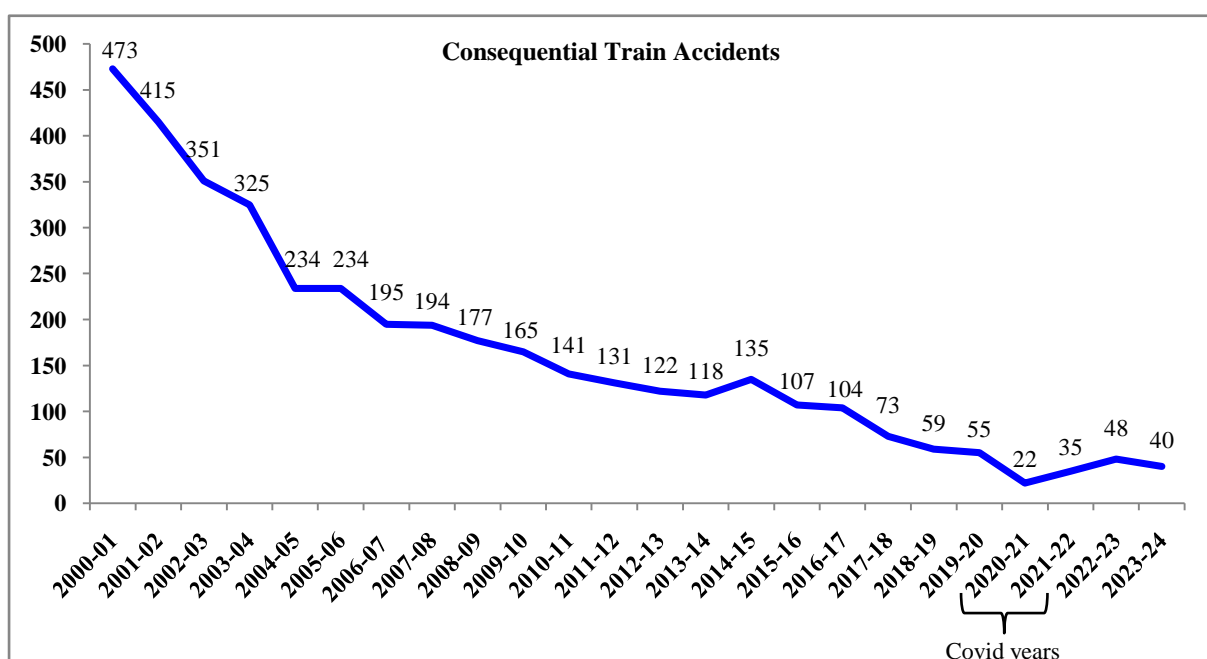
(a) to (d): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO 423 BY SHRI ANAND BHADARIA TO BE ANSWERED IN LOK SABHA ON 24.07.2024 REGARDING KAVACH SYSTEM IN INDIAN RAILWAYS

(a) : As a consequence of various safety measures taken over the years, there has been a steep decline in the number of accidents. Consequential Train Accidents have reduced from 473 in 2000-01 to 40 in 2023-24 as shown in the graph below.

It may noted that the consequential train accidents during the period 2004-14 was 1711 (average 171 per annum), which has declined to 678 during the period 2014-24 (average 68 per annum).

Another important index showing improved safety in train operations is Accidents Per Million Train Kilometer (APMTKM) which has reduced from 0.65 in 2000-01 to 0.03 in 2023-24, indicating an improvement of more than 95% during the said period.



(b): In the accident of Kanchanjunga Express which took place over Katihar Division of Northeast Frontier Railway on 17.06.2024, total 08 passengers lost their lives. Enhanced ex-gratia payment of @ Rs. 10 lakh each to the next of kin of the deceased was made. An ex-gratia amount of Rs. 2.5 lakh each to grievously injured and Rs. 50 thousand each to simply injured have also been paid. A total amount of Rs. 1.70 Crores has been paid as ex-gratia till 16.07.2024.

(c) & (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 help the train safely run 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 (including Electric Multiple Unit rakes) 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 Kavach equipment at Stations: 285 Nos.

(iv) Provision of Kavach equipment in Loco: 319 Locos

(v) Installation of Kavach 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.

The funds utilized on Kavach works so far is Rs 1216.77 Crores.

The allocation of funds during the year 2024-25 is Rs 1112.57 Crores.
