GOVERNMENT OF INDIA MINISTRY OF RAILWAYS

RAJYA SABHA UNSTARRED QUESTION NO. 286 ANSWERED ON 21.07.2023

TRAIN ACCIDENTS AND PERSONS AFFECTED

286 # SHRI SUSHIL KUMAR MODI:

Will the Minister of RAILWAYS be pleased to state:

- (a) number of train accidents, number of persons sustaining injuries and those succumbing to death during the last five years, year-wise;
- (b) number of persons died and those who sustained injuries in the Balasore (Odisha) train accident;
- (c) number of bodies which have not yet been identified in the Balasore accident;
- (d) agencies probing the causes of the different accidents, the main points of the investigation and the gist of the report;
- (e) whether this accident is due to human error or a safety lapse, details thereof; and
- (f) steps being taken by Government to prevent rail accidents in future?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

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

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) OF UNSTARRED QUESTION NO. 286 BY SHRI SUSHIL KUMAR MODI ANSWERED IN RAJYA SABHA ON 21.07.2023 REGARDING TRAIN ACCIDENTS AND PERSONS AFFECTED

(a): The Year-wise details of number of consequential train accidents, the number of persons sustaining injuries and those succumbing to death during the last five years are given below:

Year	Number of	Number of persons	Number of persons
	consequential Train	who lost their lives	who sustained
	Accidents		injuries
2018-19	59	37	112
2019-20	55	5	82
2020-21	22	4	11
(Covid Year)			
2021-22	35	17	47
(Covid Year)			
2022-23	48	8	81

(b) & (c): In the unfortunate train accident at Bahanaga Bazar Station (near Balasore) on 02.06.2023, 295 passengers lost their lives, 176 sustained grievous injuries, 451 suffered simple injuries and 180 received First Aid Treatment and left. In the said accident 41 deceased persons have not yet been identified.

(d): Departmental Inquiry Committee and the Commissioner of Railway Safety under Ministry of Civil Aviation are the main agencies probing the causes of different accidents. During the last 5 years (2018-2023), 201 accident cases were investigated by Departmental Inquiry committee and 18 cases have been investigated by Commission of Railway Safety. The focus of the inquiry is to find out the root cause of the accident and recommend the required measures to prevent the reoccurrence of the accident being investigated. As per the recommendations suggested by the different accident inquiry committee in their report, appropriate action has been taken by the Railway Administration.

(e): The Balasore accident has been investigated by the Commissioner of Railway Safety under the Ministry of Civil Aviation. The CRS has completed the inquiry. The cause of the accident as established by CRS is as follows:

"The rear-collision was due to the lapses in the signalling-circuit-alteration carried out at the North Signal Goomty (of the station) in the past, and during the execution of the signalling work related to replacement of Electric Lifting Barrier for level crossing gate no. 94 at the Station. These lapses resulted in wrong signalling to the Train No. 12841 wherein the UP Home Signal indicated Green aspect for run-through movement on the UP main line of the station, but the crossover connecting the UP main line to the UP loop line (crossover 17A/B) was set to the UP loop line; the wrong signalling resulted in the Train No.12841 traversing on the UP loop line, and eventual rear-collision with the Goods train (No. N/DDIP) standing there."

(f): The following steps have been taken by the Government to prevent rail accidents in future:-

- Rashtriya Rail Sanraksha Kosh (RRSK) has been introduced in 2017-18 for replacement/renewal/upgradation of critical safety assets, with a corpus of ₹ 1 lakh crore for five years. From 2017-18 till 2021-22 a Gross expenditure of ₹ 1.08 lakh crore was incurred on RRSK works.
- 2. Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6427 stations upto 31.05.2023 to eliminate accident due to human failure.
- 3. Interlocking of Level Crossing (LC) Gates has been provided at 11093 level Crossing Gates up to 31.05.2023 for enhancing safety at LC gates.
- 4. Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at 6377 stations upto 31.05.2023.
- 5. Detailed instructions on issues related with safety of Signalling e.g. mandatory correspondence check, alteration work protocol, preparation of completion drawing, etc. have been issued.
- System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.
- 7. All locomotives are equipped with Vigilance Control Devices (VCD) to ensure alertness of Loco Pilots.
- 8. Retro-reflective sigma boards are provided on the mast which is located between two OHE masts prior to the signals in electrified territories to warn the crew about the signal ahead when visibility is low due to foggy weather.

- 9. A GPS based Fog Safety Device (FSD) is provided to loco pilots in fog affected areas which enables loco pilots to know the distance of the approaching landmarks like signals, level crossing gates etc.
- 10. Modern track structure consisting of 60kg, 90 Ultimate Tensile Strength (UTS) rails, Prestressed Concrete Sleeper (PSC) Normal/Wide base sleepers with elastic fastening, fanshaped layout turnout on PSC sleepers, Steel Channel/H-beam Sleepers on girder bridges is used while carrying out primary track renewals.
- Mechanisation of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.
- 12. Maximizing supply of 130m/260m long rail panels for increasing progress of rail renewal and avoiding welding of joints, thereby ensuring safety.
- 13. Laying of longer rails, minimizing the use of Alumino Thermic Welding and adoption of better welding technology for rails i.e. Flash Butt Welding.
- Monitoring of track geometry by OMS (Oscillation Monitoring System) and TRC (Track Recording Cars).
- 15. Patrolling of railway tracks to look out for weld/rail fractures.
- 16. The use of Thick Web Switches and Weldable CMS Crossing in turnout renewal works.
- 17. Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.
- Web based online monitoring system of track assets viz. Track database and decision support system has been adopted to decide rationalized maintenance requirement and optimize inputs.
- 19. Detailed instructions on issues related with safety of Track e.g. integrated block, corridor block, worksite safety, monsoon precautions etc. have been issued.
- 20. Preventive maintenance of railway assets (Coaches & Wagons) is undertaken to ensure safe train operations and to keep a check on Rail Accidents across the country.
- 21. Replacement of conventional ICF design coaches with LHB design coaches is being done.
- 22. All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.
- 23. Safety of Railway Bridges is ensured through regular inspection of Bridges. The requirement of repair/rehabilitation of Bridges is taken up based upon the conditions assessed during these inspections.
- 24. Indian Railways has displayed Statutory "Fire Notices" for widespread passenger information in all coaches. Fire posters are provided in every coach so as to inform and alert passengers regarding various Do's and Don'ts to prevent fire. These include

messages regarding not carrying any inflammable material, explosives, prohibition of smoking inside the coaches, penalties etc.

- 25. Production Units are providing Fire detection and suppression system in newly manufactured Power Cars and Pantry Cars and Fire and Smoke detection system in newly manufactured coaches. Progressive fitment of the same in existing coaches is also underway by Zonal Railways in a phased manner.
- 26. Regular counseling and training of staff is undertaken.
