GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 303
ANSWERED ON 21.07.2023

RAILWAY SAFETY

303 SHRI JAWHAR SIRCAR :

Will the Minister of RAILWAYS be pleased to state:

(a) immediate, short term and long term steps being taken in view of massive and unfortunate railway accident near Balasore, to which Comptroller and Auditor General has emphasized the utmost importance of maintenance of railway tracks;

(b) the improvements which are being under taken to upgrade railway signalling systems to utilise modern technology like GPS and AI as well as free them from human error; and

(c) whether the Railways will give more attention to these basic requirements over the recent prioritisation in favor of faster and faster trains on aged tracks?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 303 BY SHRI JAWHAR SIRCAR ANSWERED IN RAJYA SABHA ON 21.07.2023 REGARDING RAILWAY SAFETY

(a) The Commissioner of Railway Safety has submitted his inquiry report and cause of the accident has been established as below:

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 17 A/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.

The following preventive measures have been taken in this regard:

i) 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.

ii) System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.

iii) Detailed instructions on issues related with safety of track e.g. integrated block, corridor block, worksite safety, monsoon precautions etc. have been reiterated.

iv) Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6427 stations.

v) 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.

vi) 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.

vii) All locomotives are equipped with Vigilance Control Devices (VCD) to ensure alertness of Loco Pilots.

viii) 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.

ix) 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.

x) 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.

xi) Mechanisation of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.

xii) Maximizing supply of 130m/260m long rail panels for increasing progress of rail renewal and avoiding welding of joints, thereby ensuring safety.

xiii) Laying of longer rails, minimizing the use of Alumino Thermic Welding and adoption of better welding technology for rails i.e. Flash Butt Welding.

xiv) Monitoring of track geometry by OMS (Oscillation Monitoring System) and TRC (Track Recording Cars).

xv) Patrolling of railway tracks to look out for weld/rail fractures.

xvi) Use of Thick Web Switches and Weldable CMS Crossing in turnout renewal works.

xvii) Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.

xviii) 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.

xix) 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.

xx) Replacement of conventional ICF design coaches with LHB design coaches is being done.

xxi) All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.

xxii) 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.

xxiii) 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.

xxiv) 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.

xxv) Regular counseling and training of staff is undertaken.

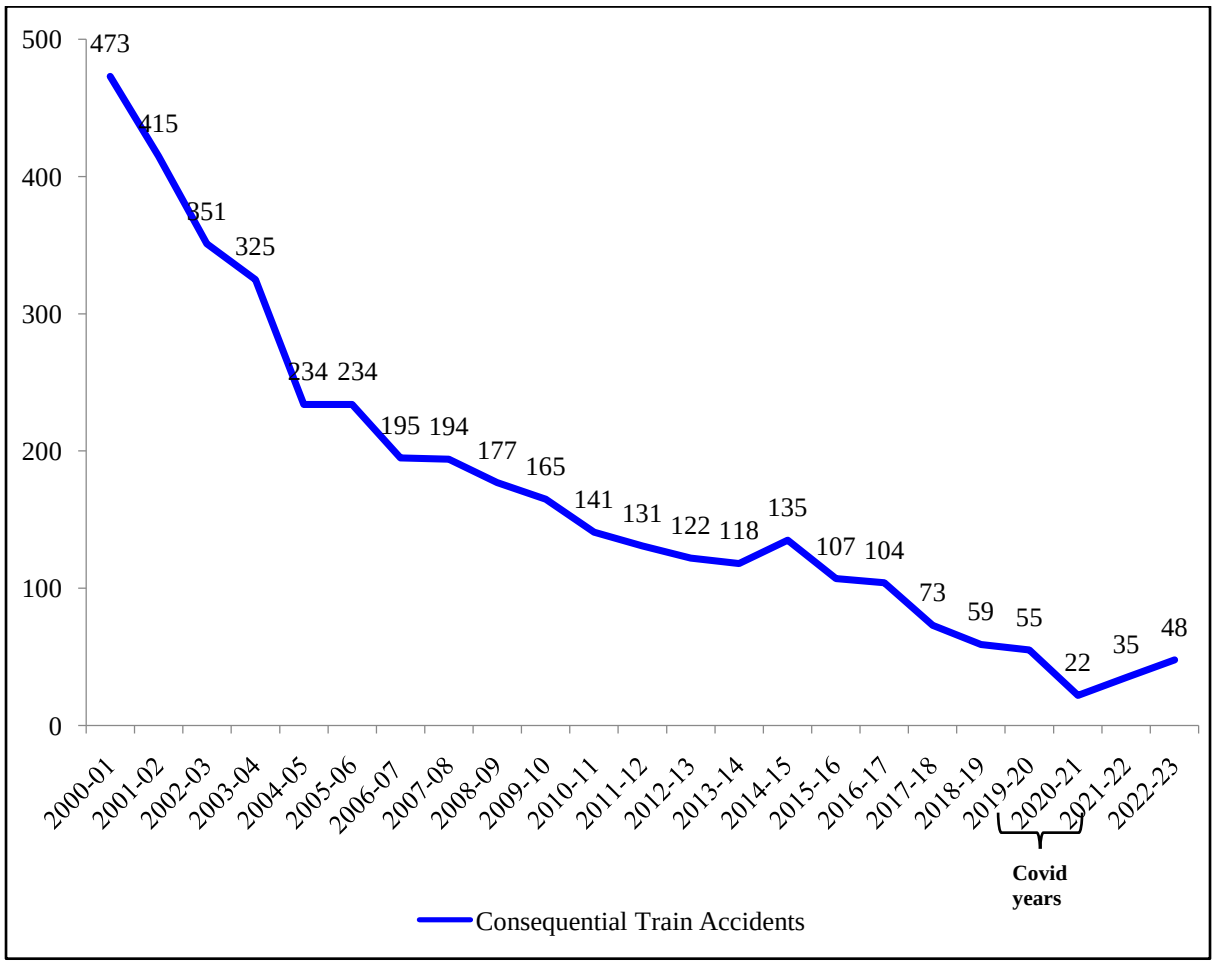
(b) Modern technologies like Electronic Interlocking, Kavach, Block Proving Axle Counters etc are being used to upgrade signalling system.

(c) Railways has always given top priority to safety. In accordance with this priority, Rashtriya Rail Sanraksha Kosh (RRSK) was created in 2017-18 for execution of assessed safety works with a corpus of Rs.1 lakh crore over a period of 5 years. The projects taken up under this fund relate to track renewal, bridges, signalling, rolling stock, training and amenities for safety critical staff. RRSK works are to be funded from Gross Budgetary Support (GBS) and Railways revenues/resources; including mobilisation of resources through Extra Budgetary Resources (EBR), as per Ministry of Finance guidelines on RRSK. From 2017-18 till 2021-22 an expenditure of Rs. 1.08 lakh crore was incurred on RRSK works.

Railway Safety Fund (RSF) was created in 2001-02 initially to fund works relating to Level Crossing and Road Over Bridge & Road Under Bridge. Its scope has subsequently been expanded for capital expenditure on other safety works also.

During last five years, Rashtriya Rail Sanraksha Kosh (RRSK) and Railway Safety Fund (RSF) have been operated for expenditure on safety related works. Apart from this Capital Expenditure from Gross Budgetary Support, DRF and DF is made on safety related works. Between FY 2014-15 and FY 2022-23 the total expenditure and BE for FY 2023-24 amounts to Rs. 1.78 lakh crores on safety related plan heads. This amount is about 2.5 times the amount spent on safety related plan heads during FY 2004-05 to FY 2013-14 (Rs. 70,274 cr.)

As a result, accidents have come down drastically as can be seen from the graph below:



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