

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
UNSTARRED QUESTION NO. 123
ANSWERED ON 02.02.2024

LAPSE OF SAFETY SYSTEM

123 SHRI P. WILSON:

Will the Minister of RAILWAYS be pleased to state:

- (a) whether Government has conducted any study to reduce the lapse of safety systems leading to train accidents, if so, the details thereof;
- (b) the details of the number of train accidents reported in last five years and the reasons therefor;
- (c) whether Government has taken any further steps/measures to strengthen the safety of the passengers; and
- (d) the details of number of pending safety projects of Railways in Tamil Nadu and details of funds allocated to these projects?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND
ELECTRONICS & INFORMATION TECHNOLOGY

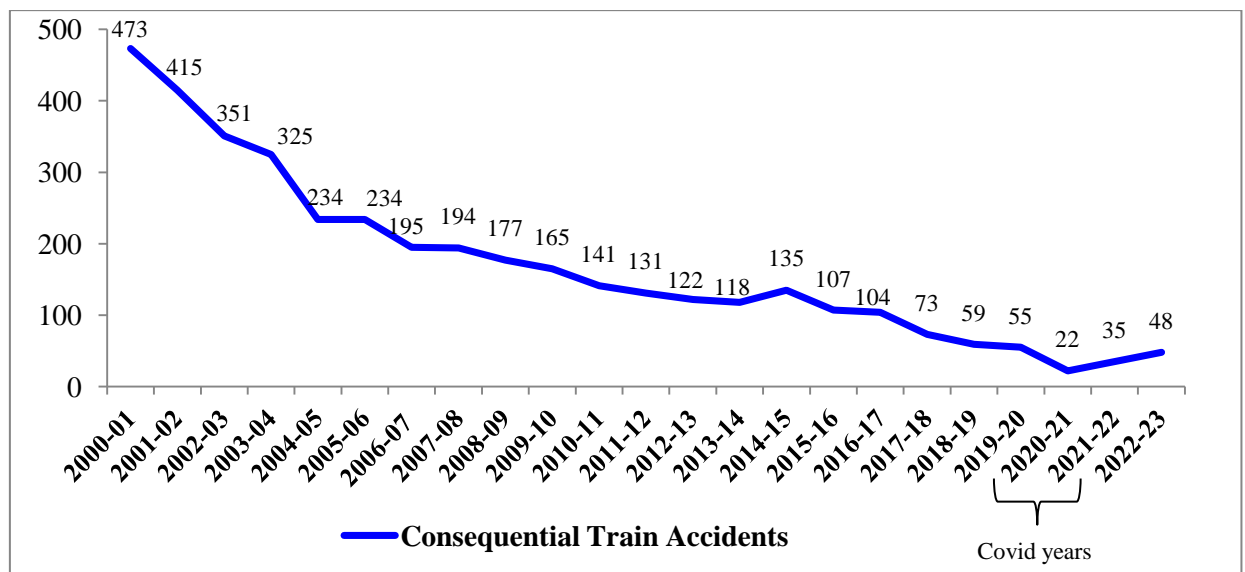
(SHRI ASHWINI VAISHNAW)

(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 123 BY SHRI P. WILSON ANSWERED IN RAJYA SABHA ON 02.02.2024 REGARDING LAPSE OF SAFETY SYSTEM

(a) to (d): Inquiry has been duly conducted in all accident cases. During the last five years i.e. from 2018-19 to 2022-23, a total number of 219 consequential train accidents occurred over Indian Railways. Accidents occurred mainly due to asset failure, environmental factors and human errors.

There is a steep decline in the number of consequential train accidents from 473 in 2000-01 to 48 in 2022-23, due to a series of safety measures taken by Indian Railways over the years which have improved safety of train operations.



The following safety measures have been taken by the Government to prevent train accidents:

- i). Rashtriya Rail Sanraksha Kosh (RRSK) has been introduced in 2017-18 for replacement/renewal/up-gradation of critical safety assets, with a corpus of ₹ 1 lakh crores for five years. From 2017-18 till 2021-22, Gross expenditure of ₹ 1.08 lakh crores was incurred on RRSK works. In 2022-23, the Govt. extended the currency of RRSK for another period of five years with Gross Budgetary Support (GBS) of ₹ 45,000 crores.
- ii). Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6521 stations up to 31.12.2023 to eliminate accident due to human failure.
- iii). Interlocking of Level Crossing (LC) Gates has been provided at 11143 level Crossing Gates up to 31.12.2023 for enhancing safety at LC gates.
- iv). Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at 6558 stations up to 31.12.2023.
- v). 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.

- vi). System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.
- 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 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 60 kg, 90 Ultimate Tensile Strength (UTS) rails, Prestressed Concrete Sleeper (PSC) Normal/Wide base sleepers with elastic fastening, fan-shaped 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 130 m/260 m 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). The use of Thick Web Switches and Weld-able 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). Detailed instructions on issues related with safety of Track e.g. integrated block, corridor block, worksite safety; monsoon precautions etc. have been issued.
- xx). 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.
- xxi). Replacement of conventional ICF design coaches with LHB design coaches is being done.
- xxii). All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.

- xxiii). 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.
- xxiv). 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.
- xxv). Production Units are providing Fire detection and suppression system in newly manufactured Power Cars and Pantry Cars, 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.
- xxvi). Regular counselling and training of staff is undertaken.
- xxvii). Concept of Rolling Block has been introduced in Indian Railway (Open Lines) General Rules vide Gazette notification dt.30.11.2023, wherein work of maintenance /repair / replacement is planned up to 52 weeks in advance on rolling basis and executed as per plan.

Railway projects are sanctioned and taken up Zonal Railway-wise and not State- wise as the Indian Railway's projects may span across various State boundaries. However, as on 01.04.23, 23 projects (09 new lines, 03 Gauge conversion projects and 11 doubling projects) of total length 2,848 Km costing ₹ 35, 580 crore, falling fully/partly in the State of Tamil Nadu, are in the planning/approval/construction stage. These include:-

- i). 9 New Line projects covering total length of 871 km at a cost of ₹ 14,682 crore.
- ii). 3 Gauge Conversion projects covering total length of 748 km at a cost of ₹ 5,224 crore.
- iii). 11 Doubling projects covering total length of 1,229 Km at a cost of ₹ 15,674 crore.

Since 2014, there has been a substantial increase in Budget allocation and commensurate commissioning of projects. Budget allocation for infrastructure and safety projects falling fully/ partly in the state of Tamil Nadu has been enhanced to the highest amount at ₹ 6,080 crore in the current year, which is nearly seven times of the budget allocation of ₹ 922 crore in 2013-14.
