

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**LOK SABHA  
STARRED QUESTION NO. 51  
TO BE ANSWERED ON 20.11.2019**

**PREVENTION OF RAIL ACCIDENTS**

**\*51 SHRI NAMA NAGESWARA RAO:**

**Will the Minister of RAILWAYS be pleased to state:**

**(a) whether the Government has taken any initiatives during the last two years for prevention of rail accidents by adopting latest tracking system, if so the details thereof and if not, the reasons therefor;**

**(b) the details of the system in place at present to ensure reduction of train mishaps; and**

**(c) the details of minor and major rail mishaps/accidents that occurred during the above period resulting in loss of human lives?**

**ANSWER**

**MINISTER OF RAILWAYS AND COMMERCE & INDUSTRY**

**(SHRI PIYUSH GOYAL)**

**(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 STARRED QUESTION NO. 51 BY SHRI NAMA NAGESWARA RAO TO BE ANSWERED IN LOK SABHA ON 20.11.2019 REGARDING PREVENTION OF RAIL ACCIDENTS**

**(a) : Yes, Sir. The Government have taken initiatives during the last two years for prevention of accidents by adopting latest tracking system. The details are as follows:**

**Automatic Train Protection (ATP) System has been planned to be provided. ATP system is an aid to Loco Pilot for prevention of Signal Passing at Danger (SPAD), over speeding and helps in train operation in fog. A few of the advanced Automatic Train Protection System (ATP) have been identified. Pilot projects of these on a few selected sections (Total 1839 Route KMs) have also been undertaken. Once successful, they shall be adopted on large scale on Indian Railways.**

**(b): Details of the systems in place at present to ensure reduction of train mishaps are as follows:**

**(i) Electrical/Electronic Interlocking Systems with centralized operation of points and signals are progressively provided to eliminate accident due to human failure and to replace old mechanical systems. These systems have been provided at 5,965 stations up to 30.09.2019.**

**(ii) Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means instead of human element is completed at about 6,117 stations up to 30.09.2019.**

**(iii) Axle Counter for Automatic clearance of Block Section to ensure complete arrival of train without manual intervention before granting line clear to the next train and to reduce human element have been provided on 5,515 block sections up to 30.09.2019.**

**(iv) Train Protection and Warning System: Train Protection and Warning System (TPWS) based on European Technology ETCS Level-1 Automatic Train Protection (ATP) System to avoid train accident/collision on account of human error of Signal Passing at Danger (SPAD) or over speeding, has been provided at selected sections.**

**(v) Auxiliary Warning System (AWS): An ATP called Auxiliary Warning System (AWS) is presently functional on 413 RKMs in the Mumbai suburban section of Central Railway (289 Route KMs) and Western Railway (124 Route KMs).**

**(vi) Vigilance Control Device (VCD): All the diesel and electric locomotives on Indian Railways have now been provided with Vigilance Control Devices.**

**(vii) A Global Positioning System (GPS) based Fog Pass Device is being provided as required to loco pilots in fog affected areas which enables loco pilots to know the exact distance of the approaching signals, LC Gate and other critical landmarks.**

**(viii) Simulator based training of loco pilots: Simulator based training is being imparted to loco pilots to improve their driving skills and reaction time.**

**(ix) Track Renewal: During 2018-19, 4181 kms. track renewal had been carried out. For the current year i.e. 2019-20, 2643 km track renewal has been carried out upto October, 2019.**

**(x) In order to improve safety, modern track structure consisting of Prestressed Concrete Sleeper (PSC), 60kg, 90 or higher Ultimate Tensile Strength (UTS) rails, fanshaped layout turnout on PSC sleepers, Steel Channel Sleepers on girder bridges is used while carrying out primary track renewals.**

**(xi) Provision of Thick Web Switches (TWS) is planned for all important routes of Indian Railways. To expedite provision of TWS, procurement of Thick Web Switches has been decentralized to Zonal Railways.**

**(xii) Long rail panels of 260 M/130M length are manufactured at the steel plant to minimize number of Alumino Thermit joints in the track.**

**(xiii) Cold weather patrolling of the railway tracks is done during the coldest part of the night in cold months of the year to look out for weld/rail fractures for ensuring safety.**

**(xiv) Ultrasonic Flaw Detection (USFD) testing of rails to detect flaws and timely removal of defective rails. USFD Vehicular testing system has been introduced and implemented successfully on Northern Railway.**

**(xv) Global Positioning System(GPS) trackers are being progressively provided to keyman & patrolmen to monitor their movement & to report any unsafe condition noticed by them instantaneously.**

**(xvi) Mechanization of Track Maintenance is being progressively carried out to reduce human errors.**

**(xvii) Safety drives and inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.**

**(xviii) Linke Hofmann Busch (LHB) Type Coaches: LHB coaches are of a superior design that reduces the chances of derailment and reduces the possibility of grievous injury or death in case of**

**accidents. Indian Railways has completely switched over to the manufacture of LHB coaches from 2018-19 onwards.**

**(xix) Prevention of accidents by providing Online Monitoring of Rolling Stock(OMRS) and Wheel Impact Load Detector(WILD). Total 07 Online Monitoring of Rolling Stocks(OMRS) equipment have been installed on Indian Railway network between 2017-2019 and 02 are under installation. 17 Wheel Impact Load Detectors (WILD) have been installed on Indian Railways, between 2006–2018.**

**(xx) Elimination of Unmanned Level Crossing Gates : 3,479 Unmanned Level Crossings (UMLCs) were eliminated during the year 2018-19. All UMLCs on Broad Gauge have already been eliminated by January, 2019.**

**(xxi) Interlocking of Level Crossing Gates with signals to avoid accidents has been done at 11,474 Level Crossing Gates up to 30.09.2019.**

**(xxii) Provision of Fire Extinguishers: Dry chemical powder type fire extinguishers are being provided in all mainline coaches. These are portable fire extinguishers and are easy to use by on board staff or passengers in case of emergency.**

**(xxiii) Use of improved materials for electrical fittings and fixtures such as Miniature Circuit Breakers(MCBs), light fittings, terminal boards and connectors.**

**(xxiv) Publicity Campaigns: Intensive publicity campaigns to prevent the travelling public from carrying inflammable goods are regularly undertaken.**

**(c) Details of consequential train accident involving fatalities during the period 2017-18, 2018-19 and the current year 2019-20 (upto 31st October, 2019), over Indian Railways type-wise and year-wise are given below :-**

**Consequential Train Accidents involving fatalities**

<b>Type of Accidents</b>	<b>2017-18</b>		<b>2018-19</b>		<b>2019-20 (upto 31st October)</b>	
	<b>No. of accidents</b>	<b>Fatalities</b>	<b>No. of accidents</b>	<b>Fatalities</b>	<b>No. of accidents</b>	<b>Fatalities</b>
<b>Collision</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>
<b>Derailment</b>	<b>2</b>	<b>29</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>0</b>
<b>Manned Level Crossing Accidents</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>1</b>
<b>Unmanned Level Crossing Accidents</b>	<b>10</b>	<b>26</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>0</b>
<b>Fire in trains</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>Miscellaneous Accidents</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Total</b>	<b>15</b>	<b>58</b>	<b>11</b>	<b>37</b>	<b>2</b>	<b>4</b>

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