

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

RAJYA SABHA
STARRED QUESTION NO.239
ANSWERED ON 21.03.2025

**STEPS TO IMPROVE QUALITY AND SECURITY INFRASTRUCTURE
OF RAILWAYS**

*239 # SHRI NEERAJ DANGI:

Will the Minister of RAILWAYS be pleased to state:

- (a) the steps being taken by Government to improve the quality of railway infrastructure in view of various railway accidents reported in the year 2024;
- (b) whether Government has identified specific deficiencies in the existing security systems, if so, the measures being taken to address these issues;
- (c) the plan being formulated by Government to fill the 1.5 lakh vacancies in the security category, especially to ensure that adequate number of skilled frontline security personnel are employed; and
- (d) the details of timeline and strategy for recruitment and training of security personnel to enhance the overall safety and reliability of railway operations?

ANSWER

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

(SHRI ASHWINI VAISHNAW)

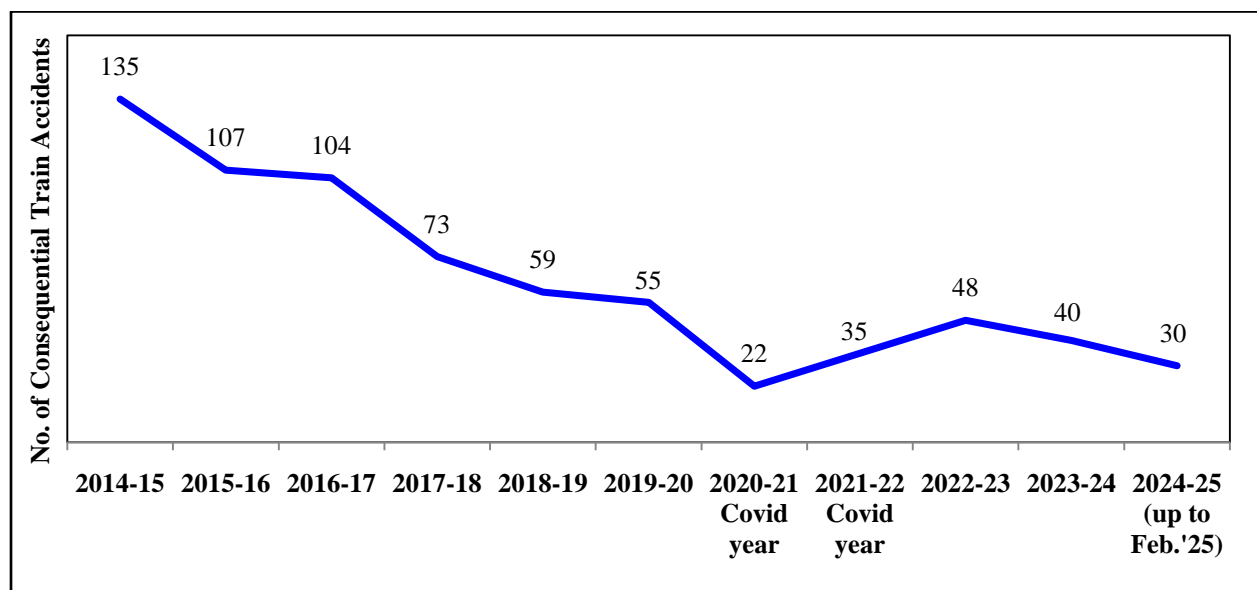
(a) to (d): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. 239 BY SHRI NEERAJ DANGI ANSWERED IN RAJYA SABHA ON 21.03.2025 REGARDING STEPS TO IMPROVE QUALITY AND SECURITY INFRASTRUCTURE OF RAILWAYS

(a) to (d): Safety is accorded the highest priority on Indian Railways. 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 135 in 2014-15 to 30 in the year 2024-25 (Upto February 2025) as shown in the graph below. The causes of these accidents broadly include track defects, Loco/Coach defects, equipment failures, human errors etc.

It may be noted that the consequential train accidents during the period 2004-14 was 1,711 (average 171 per annum), which has declined to only 30 in 2024-25 (till date).

Another important index showing improved safety in train operations is Accidents Per Million Train Kilometer (APMTKM) which has reduced from 0.11 in 2014-15 to 0.03 in 2023-24, indicating an improvement of approx. 73% during the said period.



The various safety measures taken to enhance safety in train operations are as under:-

1. On Indian Railways, the expenditure on Safety related activities has increased over the years as under:

Expenditure on Safety related activities						(Rs. in Cr.)
	2013-14	2022-23	2023-24	RE 2024-25	BE 2025-26	
	(Act.)	(Act.)	(Act.)			
Maintenance of Permanent Way & Works	9172	18,115	20,322	21,800	23,316	
Maintenance of Motive Power and Rolling Stock	14796	27,086	30,864	31,540	30,666	
Maintenance of Machines	5406	9,828	10,772	12,112	12,880	
Road Safety LCs and ROBs/ RUBs	1986	5,347	6,662	8,184	7,706	
Track Renewals	4985	16,326	17,850	22,669	22,800	
Bridge Works	390	1,050	1,907	2,130	2,169	
Signal & Telecom Works	905	2,456	3,751	6,006	6,800	
Workshops Incl. PUs and Misc. expenditure on Safety	1823	7,119	9,523	9,581	10,134	
Total	39463	87,327	1,01,651	1,14,022	1,16,470	

2. Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6,623 stations up to 28.02.2025 to eliminate accident due to human failure.
3. Interlocking of Level Crossing (LC) Gates has been provided at 11,089 level Crossing Gates up to 28.02.2025 for enhancing safety at LC gates.
4. Complete Track Circuiting of stations to enhance safety by verification of track occupancy by electrical means has been provided at 6,631 stations up to 28.02.2025.
5. Kavach is a highly technology intensive system, which requires safety certification of highest order. Kavach was adopted as a National ATP system in July 2020. Kavach is provided progressively in phased manner. Kavach has already been deployed on 1548 RKm on South Central Railway and North Central Railway. Presently, the work is in progress on Delhi-Mumbai and Delhi-Howrah corridors (approximately 3000 Route

Km). Track side works on these routes have been completed on about 1969 Rkm. Regular trials are being done on these sections.

6. 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.
7. System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.
8. All locomotives are equipped with Vigilance Control Devices (VCD) to improve alertness of Loco Pilots.
9. Retro-reflective sigma boards are provided on the mast which is located two OHE masts prior to the signals in electrified territories to alert the crew about the signal ahead when visibility is low due to foggy weather.
10. 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.
11. 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.
12. Mechanisation of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.
13. Maximizing supply of 130m/260m long rail panels for increasing progress of rail renewal and avoiding welding of joints, thereby improving safety.
14. Ultrasonic Flaw Detection (USFD) testing of rails to detect flaws and timely removal of defective rails.
15. Laying of longer rails, minimizing the use of Alumino Thermic Welding and adoption of better welding technology for rails i.e. Flash Butt Welding.
16. Monitoring of track geometry by OMS (Oscillation Monitoring System) and TRC (Track Recording Cars).
17. Patrolling of railway tracks to look out for weld/rail fractures.
18. The use of Thick Web Switches and Weldable CMS Crossing in turnout renewal works.

19. Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.
20. 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.
21. Detailed instructions on issues related with safety of Track e.g. integrated block, corridor block, worksite safety, monsoon precautions etc. have been issued.
22. Preventive maintenance of railway assets (Coaches & Wagons) is undertaken to ensure safe train operations.
23. Replacement of conventional ICF design coaches with LHB design coaches is being done.
24. All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.
25. 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.
26. Indian Railways has displayed Statutory “Fire Notices” for widespread passenger information in all coaches. Fire posters are provided in every coach so as to educate 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.
27. 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.
28. Regular counselling and training of staff is undertaken.
29. Concept of Rolling Block introduced in Indian Railways (Open Lines) General Rules vide Gazette notification dated 30.11.2023, wherein work of integrated maintenance/repair/replacement of assets is planned up to 52 weeks in advance on rolling basis and executed as per plan.

The details of the Safety related works related to better maintenance practices, Technological improvements, better infrastructure and rolling stock etc. undertaken by Railways are tabulated below:-

SN	Item	2004-05 to 2013-14	2014-15 to 2024-25 (till Jan 25)	2014-25 Vs. 2004-14
Technological improvements				
1	Use of high-quality rails (60 Kg) (Km)	57,450 km	1.4 lakh km	More than 2 times
2	Longer Rail Panels (260m) (Km)	9,917 km	76,000 km	More than 7 times
3	Electronic Interlocking (Stations)	837 stations	3,243 stations	4 times
4	Fog Pass Safety Devices (Nos.)	As on 31.03.14: 90 nos.	As on 31.01.25: 25,293	281 times
5	Thick Web Switches (Nos.)	Nil	27,079 nos.	
Better maintenance practices				
1	Primary Rail Renewal (Track Km)	32,260 km	49,000 km	1.5 times
2	USFD (Ultra Sonic Flaw detection) Testing of Welds (Nos.)	79.43 lakh	1.9 crore	More than 2 times
3	Weld failures (Nos.)	In 2013-14: 3699 nos.	In 2024-25: 301 nos.	92 % reduction
4	Rail fractures (Nos.)	In 2013-14: 2548 nos.	In 2024-25: 243 nos.	91% reduction
Better infrastructure and Rolling stock				
1	New Track KM added (Track km)	14,985 nos.	34,000 km	More than 2 times
2	Flyovers (RoBs)/ Underpasses (RUBs) (Nos.)	4,148 nos.	12,771 nos.	More than 3 times
3	Unmanned Level crossings (nos.) on BG	As on 31.03.14: 8948	As on 31.03.24: Nil (All eliminated by 31.01.19)	Removed
4	Manufacture of LHB Coaches (Nos.)	2,337 nos.	41,551	More than 17 times

Occurrence and filling up of vacancies is a continuous process on Indian Railways considering its size, spatial distribution and criticality of operation. Adequate and suitable manpower is provided to cater to the regular operations, changes in technology, mechanisations and innovative practices. The vacancies are filled up primarily by placement

of indents by Railways with Recruitment agencies as per operational and technological requirements.

After easing of restrictions imposed on account of COVID 19, two major examinations involving more than 2.37 crore candidates have been conducted successfully during 2020 to 2022.

Exam	Candidates	Cities	Centres	Days	Shifts
L2 - L6	1.26 cr	211	726	68	133
L1	1.1 cr	191	551	33	99

Based on these exams, 1,30,581 candidates have been recruited in Railways.

The RRB examinations are quite technical in nature entailing large scale mobilization of men and resources and training of manpower. Railway overcame all these challenges and successfully conducted the recruitment in a transparent manner following all laid down guidelines. No instance of paper leakage or similar malpractice has occurred during the entire process.

Recruitment done in Indian Railways during 2004-2005 to 2013-2014 vis-à-vis during 2014-2015 to 2023-2024 is given as under:-

Period	Recruitments*
2004-2005 to 2013-2014	4.11 lakhs
2014-2015 to 2023-2024	5.02 lakhs

* Including Level-1 and security related posts.

Further, as a system improvement, the Ministry of Railways has introduced a system of publishing annual calendar from 2024 for recruitment to various categories of Group 'C' posts. The introduction of annual calendar will benefit the aspirants in the following manner:

- More opportunities for candidates;
- Opportunities to those becoming eligible every year;
- Certainty of exams;
- Faster Recruitment process, Training and Appointments

Accordingly, ten Centralized Employment Notifications (CENs) for 92,116 (Safety-63669, Non-Safety 28447) vacancies have been notified during January to December 2024 for filling up of posts of Assistant Loco Pilots, Technicians, Sub-Inspectors, Constables in Railway Protection Force (RPF), Junior Engineers (JEs)/ Depot Material Superintendent (DMS)/ Chemical & Metallurgical Assistant (CMA), Paramedical Categories, Non-Technical Popular Categories (Graduate), Non-Technical Popular Categories (Under-Graduate), Ministerial & Isolated Categories and Level-1.

For four notifications, Computer Based Tests (CBTs) have been completed from 25.11.2024 to 30.12.2024. The details are as under:-

Exam	Candidates	Cities	Centres	Days	Shifts
1 st Stage CBT for the post of ALP (18,799 vacancies)	18,40,347	156	346	5	15
CBT for the post of RPF-SI (452 vacancies)	15,35,635	143	306	5	15
1 st Stage CBT for the post of JE/DMS/CMA (7,951 vacancies)	11,01,266	146	323	3	9
CBT for the post of Technician (14,298 vacancies)	26,99,892	139	312	9	27

In addition, Computer Based Test for RPF CEN No. 02/2024 (4208 vacancies) for the post of Constable has started from 02.03.2025 onwards.

As safe train operation is the top most priority of Indian Railways special emphasis is laid on the training of safety category employees. Detailed training modules including on Kavach system as per prescribed periodicity are available for respective categories at initial and promotional stages along with refresher courses as well as specialized training courses, laying emphasis on practical aspects which help them in skill upgradation and assimilation with related advanced technology, keeping a focus on overall safety and passenger experience. These modules are also updated keeping in view the technological changes in working practice.

Training Centres located all over Indian Railways impart various type of trainings i. e. Initial, Promotional, Refresher & Specialized:

- Initial Training – for the purpose of introducing the new entrants to the various facets of Railway operations and management.
- Promotional Training – for the purpose of preparing serving staff in advance for jobs of higher responsibilities.
- Refresher Training – for the purpose of refreshing the serving employees periodically with new ideas and principles for improving efficiency in their jobs.
- Specialized Training – for the purpose of updating the knowledge of technological developments, quantitative techniques, etc. e.g. PRS, new locomotives, signalling system, Track Technology etc.

In the last 5 years (i.e., from 2019-20 to 2023-24), 22,98,293 employees have undergone training viz. initial, promotional, refresher & specialized training. In the current financial year 4,44,475 employees have undergone such training upto February 2025.

Besides these training, some other / special courses are also run by the Training Institutes for non-gazetted staff on Indian Railways i.e. Training for Frontline Staff in Soft Skills, Customer Care Training, Disaster Management Training, Accident Investigation Programme for all Supervisors, Investigation for derailment for JE/SSE (P.Way), Train Parting Programme for Drivers, Threat Perception and Emergency Response, Fire Fighting and First Aid Skills, Gender sensitization, Yoga and Meditation and other training etc.

Moreover, in the last 3 years various Training Modules have also been introduced on Indian Railways. Further, training modules along with training content on KAVACH training for LP/ALP/CLI and staff of Traffic Department have recently been introduced on Indian Railways.

For Security Officials, training in both theoretical portion and practical aspects through Scenario planning, Simulation exercise, Role play, Experiential learning and Case-study is being done on Indian Railways.

Security Audit is an ongoing process and the deficiencies noted during such audits are addressed on priority. Following steps are being taken by the Railways in coordination with GRP/Local Police for safety and security of passengers in trains and at railway stations:-

- i. On vulnerable and identified routes/sections trains are escorted by Railway Protection Force in addition to trains escorted by Government Railway Police of different States.

- ii. Zonal railways have been instructed for deployment of proper combined strength of male & female RPF/RPSF personnel in train escort parties, to the extent possible.
- iii. Frequent announcements are made through Public Address System to educate passengers to take precautions against theft, snatching, drugging etc.
- iv. Railway Help Line number 139 (integrated with Emergency Response Support System No. 112) is operational (24x7) over Indian Railways for security related assistance to passengers in distress.
- v. Surveillance is kept through CCTV cameras provided in number of coaches and railway stations for enhanced security of passengers.
- vi. Railways are in regular touch with passengers through various social media platforms like. Twitter, Facebook, etc. to enhance security of passengers and to address their security concerns.
- vii. 'Meri Saheli' initiative has been launched with an objective to provide enhanced safety and security to lady passengers travelling alone in long distance trains for their entire journey i.e. from the originating station to destination station. Dedicated teams of lady RPF personnel have been formed for its implementation. Presently, approximately 250 RPF teams are being deployed for this purpose covering approximately 500 trains on an average daily over the Indian Railways network.
- viii. State Level Security Committee of Railways (SLSCR) have been constituted for all State/Union Territories under the Chairmanship of respective Director General of Police/Commissioner of States/Union Territories for regular monitoring and review of security arrangements of the Railways.
