



## ARTICLE 4

# Passenger and Public Safety in the Indian Railways System: An Analysis of Unaccounted Railway-Related Deaths in India

Mubarak A.\*

Received : 2 June 2025

Accepted : 12 November 2025

## Abstract

There have been significant technological advancements in Indian Railways during the past couple of decades, accompanied by a substantial increase in both passenger and goods traffic. The number of accidents has been generally declining over the years, even though there has been an increase in serious accidents involving an increased number of deaths and casualties in the recent past. Despite the significant media attention railway accidents attract, statistically, trains remain one of the safest modes of travel when statistics accepted and reported by Indian Railways in isolated incidents of railway accidents are considered. Indian Railways marked history by zero accident deaths from operational reasons in 2019-20 and 2020-21. However, the actual railway-related deaths numbered in tens of thousands every year, as per the National Crime Record Bureau (NCRB) statistics on railway-related accident deaths. This study attempts to explore the stark contrast between official accident statistics reported by Indian Railways and those published by the NCRB and the reasons for such disparity. Tens of thousands of lives lost each year due to falls, trespassing, and being run over are routinely dismissed as instances of public negligence and law and order issues, where the railway disclaims any responsibility.

The loss of precious lives is not examined as systemic failures, and no preventive actions are taken. This study aims to make a case for broadening the audit scope of the Supreme Audit Institution to include this under-examined area where thousands of lives are lost annually.

## Keywords

Indian Railways, Railway Accident, Accident Deaths, Traffic Accident Consequential train accidents, Train related deaths, National Crime record Bureau (NCRB) and Commissioner of Railway Safety.

\*Assistant Audit Officer, Office of Director General of Audit, Finance and Communication;  
Branch:Thiruvananthapuram  
Email: mubaraka.pnt@cag.gov.in



## 4.1 Introduction

The Indian Railways is one of the world's largest railways. It functions as a single system with around 68,000 route km of track, More than 21,000 trains ply carrying millions of passengers besides hauling millions of tonnes of freight every day, traversing across the length and breadth of the country (C&AG of India Report No 22 of 2022).

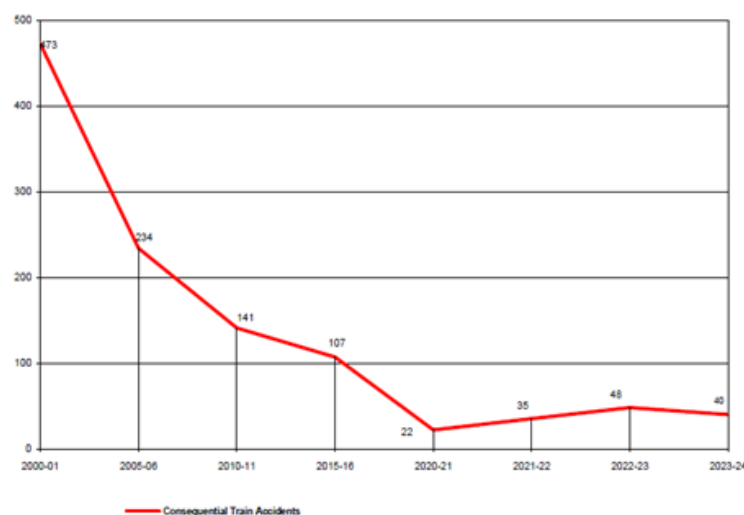
There has been a significant increase in traffic and technological advancement in railways during the past couple of decades. Conversion of meter gauge to broad gauge, doubling of important routes, massive electrification, conversion to safer LHB (Linke-Hofmann-Busch, of German origin) coaches, which are technologically superior with features like Anti-climbing arrangement, introduction of new Vande Bharat Trains, recent capital investment in railway amenities changing the look and feel of railway stations, etc., are contributing to changing the face of Indian Railways (Indian Railways, Annual Report, 2023-24). The production units of Indian Railways are not producing old Integral Coach Factory (ICF) coaches anymore, and trains operating with conventional ICF coaches are getting replaced by safer LHB coaches.

Safety in railway operations is critically important as it directly impacts human lives, economic stability, and public trust in one of the world's largest railway networks, which carries billions of passengers annually. Accidents tarnish the image of the organization and question the safe working procedures of railways.

## 4.2 Railway Safety And Consequential Railway Accidents

The Indian Railways accident manual defines that accident is an occurrence in the course of working of railway which does or may affect the safety of the Railway, its engine, rolling stock, permanent way and works, fixed installations, passengers or railway servant or which affect the safety of others, or which does or may cause delay to train or loss to the Railway (Indian Railways Accident Manual 2012, Page 18).

The Indian Railways has witnessed a declining trend of consequential accidents over the past couple of decades from around 473 in 2000-01 to 40 in 2023-24 as shown below (Figure 4.1).



**Figure 4.1 Accidents in Indian Railways**  
Source: Annual Report 2023-24, 55



Technological advancements have helped railways to reduce the number of accidents. Despite the decline in statistics of number of accidents, there has been an increase in very serious consequential accidents and spike in accident death and injuries in the recent past including one of the deadliest accidents in the history of Railways which happened in Balasore of Orissa which took lives of more than 300 people and injured more than 600 (The Times of India, 30-Sep 2024; The Hindu, 1-Aug- 2024). Every serious railway accident is followed by an enquiry by the Commission of Railway Safety. The Commission of Railway Safety (CRS) is responsible for inquiring into major accidents involving casualties and submitting reports, and providing advisory recommendations to improve safety (Commissioner of Railway Safety). The CRS is a government body headed by the Chief Commissioner of Railway Safety (CCRS), functioning under the Ministry of Civil Aviation, ensuring independence from the Railway Administration. The CCRS is assisted by various Deputy Commissioners of Railway Safety (Dy CRS) and Commissioners of Railway Safety (CRS) with different jurisdictions of one or more zonal railways (Commissioner of Railway Safety, Organizational Tree).

The Comptroller and Auditor General of India released a report in 2022 titled “Derailments in Indian Railways”, which audited the safety measures and shortcomings related to consequential accidents (primarily derailments) in Indian Railways from April 2017 to March 2021. C&AG recommended various measures to improve train safety, such as adherence to enquiry timelines, strengthened monitoring mechanism, effective utilization of Rashtriya Rail Sanraksha Kosh’ (RRSK) Funds, etc. (C&AG of India, Performance Audit Report No 22 of 2022 on Derailments in IR 2022, Page-10).

### **4.3 How Safe Are Railways? A Statistical View**

Despite the significant media attention railway accidents attract, trains remain one of the safest modes of travel. They are operated professionally by trained employees who strictly adhere to operational rules. Unlike road vehicle drivers, whose behavioural errors often contribute to accidents, railway employees are accountable for safe operation with stringent checks and balances, which ensure all safety rules are complied with. The safe and stable design of conically profiled rail wheels having a self-centring mechanism while moving over the iron rails prevents the train from derailment, even when a considerable disrupting force, sliding away, is applied (Rail Profile) Every accident, including minor incidents with no casualties or property damage (Indicative Accidents), is thoroughly investigated. Measures are implemented to prevent future occurrences, including updates to safety protocols and modifications to operational equipment.

The statistics of Railway Accident deaths shown in Table 4.1 corroborate the above fact, as the numbers are very meagre when compared to the total traffic accident deaths in India published by the National Crime Record Bureau (NCRB). As per NCRB, there were 1.94 lakh traffic accident deaths in India in 2022 (NCRB Report on Accidents and Suicides in India,2022).

**Table 4.1 Statistics on Railway Accident Deaths [1]**

YEAR	Number of Consequential Train Accidents	Number of Passengers Killed	Number of Railway Personnel Killed	Others Killed due to other than operational failures	Total Accidental Deaths as per Railway Claim
2014-15	131	118	6	168	292
2015-16	106	40	2	80	122
2016-17	103	195	3	40	238
2017-18	72	29	2	27	58
2018-19	59	16	1	20	37
2019-20	54	0	4	1	5
2020-21	21	0	1	3	4
2021-22	34	9	3	5	17
2022-23	48	1	-	3	4
2023-24	40	322	-	9	331
<b>TOTAL</b>	<b>668</b>	<b>730</b>	<b>22</b>	<b>356</b>	<b>1108</b>

As per the latest report on traffic accidents published by the NCRB in 2022, the average accident death per 100 KM of National Highway is 45, whereas the same is 23 on State Highways. The average deaths per 100 Route Kilometre of the Indian Railways stand at a mere 0.005 deaths for the same year (National Crime Records Bureau, Accidental Deaths & Suicides in India 2022) The number of train accidents per million train kilometres for the year 2023-24 is also meagre at 0.03 (Indian Railways, Annual Report 2023-24, page 17). These statistics prove that railway travel is much safer compared to National Highways.

The Indian Railways, first time in history, recorded zero accident deaths from consequential rail accidents in 2019-20 and continued to mark zero deaths in 2020-21 also (Commissioner of Railway Safety, Annual Reports). This essay does not enquire into the issue of the consequential accidents which are dealt with by the Railways with the utmost seriousness. But it tries to address the issue of railway-related deaths outside the statistics of Indian Railways and for which the Railways has no monitoring system in place.

1. Indian Railways, Annual Reports and Commissioner of Railway Safety , Annual Reports.

#### 4.4 The Overlooked Reality: NCRB Statistics On Railway-Related Fatalities

The statistics on railway-related accident deaths published by the NCRB gives us a very different picture of the safety of railway passengers. A comparison of statistics of railway-related deaths by NCRB with the statistics of railways shows an alarming disparity. While a mere 1108 accident deaths are reported by Indian Railways during the last 10 years up to 2023-24 (the period up to the Annual report of CCRS published), the NCRB reports 2,44,047 deaths for a similar 10-year period as detailed in Table 4.2. This is a whooping 220-fold figure that Railways claims.

**Table 4.2: Fatalities from Rail Accidents in India (2013-22)**

Year*	Other Rail Accidents	Level Cross Accidents	Total
2013	27,765	1,318	29,083
2014	25,006	2,575	27,581
2015	26,066	2,65	28,716
2016	22,97	3,133	26,103
2017	23,959	1,534	25,493
2018	24,545	1,507	26,052
2019	24,619	1,762	26,381
2020	11,968	1,185	13,153
2021	16,431	1,807	18,238
2022	20,792	2,455	23,247
<b>TOTAL</b>	<b>224,121</b>	<b>19,926</b>	<b>244,047</b>

Source: National Crime Record Bureau, Accidents and Suicides in India 2017.  
and National Crime Record Bureau, Accidental Deaths & Suicides in India 2022.

#### 4.5 Why Disparity?

The significant disparity between the railway-related accident death statistics reported by the Indian Railways (1,108 deaths over the last 10 years from 2014-15 to 2023-24) and the NCRB (2,44,047 deaths over the 10 years from 2013 to 2022) stems from differences in definitions, methodologies on how Indian Railways identifies Accidents.

Indian Railways primarily reports "consequential train accidents," which include incidents like collisions, derailments, fires, level-crossing accidents, and other events that result in significant damage to railway property, disruption of rail traffic, or loss of life/injury to passengers (Indian Railways Accident Manual 2012, page 20). These statistics typically focus on the deaths of passengers or railway staff directly involved in train accidents. Deaths caused by falling off trains, trespassing, or suicides are excluded from these figures unless they occur during a consequential accident.



## 4.6 Accidents: The Indian Railways Perspective

For statistical purposes, accidents have been classified in categories from “A” to “R”, excluding “I” and “O”. There are different types of accidents, such as consequential accidents, indicative accidents, equipment failure and unusual incidents. The broad classification is as detailed in Table 4.3 (Indian Railways Accident Manual 2012, Pages 27-31).

The Railways Accident manual defines serious accidents as an accident to a train carrying passengers which is attended with loss of life or with grievous hurt to a passenger or passengers in the train, or with serious damage to railway property of the value exceeding ₹2 crore and any other accident which, in the opinion of the Commissioner of Railway Safety requires the holding of an inquiry by the Commissioner of Railway Safety (Indian Railways Accident Manual 2012, page 19). However, the cases of injuries or deaths of passengers or the public while trespassing on the track are considered mere carelessness on their part and need not be investigated by CRS. The accidents involving death or injury to a railway servant in a similar way are also not considered accidents to be investigated. These cases are considered by railways as mere law and order cases outside their ambit.

Thus, the railway-related accidents we read daily in the newspaper are those mere “unusual incidents” as far as the Indian Railways is concerned. The Indian Railways considers the same as mere law and order issues and categorically excludes all these thousands of deaths every year from the responsibility and statistics of the railways. While high-profile accidents like Balasore derailment, which took around 300 lives, appear on headlines for weeks, more than 600 daily deaths are relegated to a one-column mention on the regional pages of newspapers or in the obituary section, fading into oblivion.

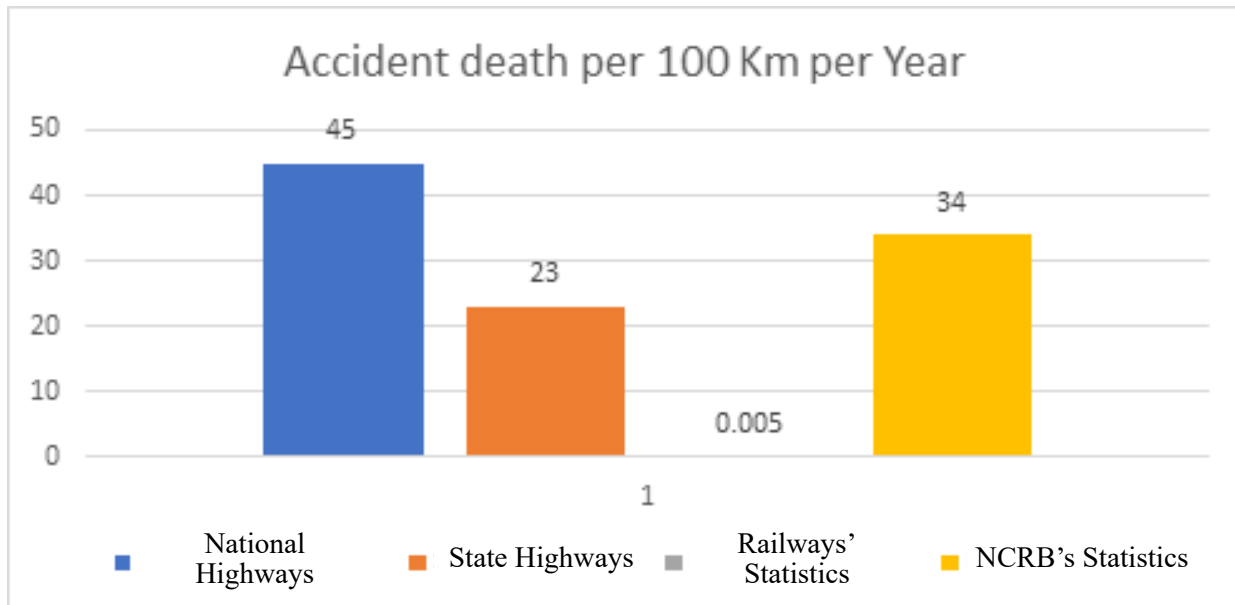
Unfortunately, many of these deaths are caused by the non-awareness of public at large on the functioning of trains. There have been numerous incidents where unaware passengers, having boarded the wrong train, attempt to deboard after it has started moving, only to slip and fall between the train and the platform. Passengers waiting for other trains are sometimes caught off guard and fatally struck by these fast-moving trains. The lack of basic amenities such as water and tea on board has also led passengers to get off at intermediate stations, where halts may last only for one to two minutes. In their attempt to reboard moving trains, many have met with fatal accidents. While the newly produced LHB coaches have advanced safety features preventing derailments and, in the case of derailment, preventing injuries and casualties, the trains have no automatic doors despite being designed to achieve a speed of 160 Kmph. Furthermore, unfenced railway tracks that pass through densely populated cities and villages while trains continue to speed at 130 kmph to 160 kmph pose a serious and constant danger to the public. These limitations and causes of thousands of deaths are never systematically studied, and hence, no preventive measures are taken. No serious investigation into the root causes of such many avoidable deaths is made, without which there is a huge chance of an increase in train-related fatalities as tracks are being moderni-

sed and train speed is increasing. According to NCRB report, the leading causes of train-related deaths are people falling from trains and being run over (National Crime Record Bureau, Accidental Deaths & Suicides in India 2022, page 12).

**Table 4.3: Classification of Railway Accidents in India**

Type of Accident	Accident Code	Accident Type
<b>CONSEQUENTIAL TRAIN ACCIDENTS</b>		
<i>Consequential train accidents include train accidents having serious repercussion in terms of loss of human life, human injury, loss to railway property or interruption to rail traffic. Train accident under following classification will be termed as consequential train accidents.</i>	A	Collision
	B	Fire
	C	Level Crossing
	D	Derailment
	E	Miscellaneous
<b>OTHER ACCIDENTS</b>		
Other train accidents: All other accidents which are not covered under the definitions of consequential train accidents are to be treated as “other train accidents”. Indicative Accidents, Equipment Failure and Unusual incidents are Other train accidents.		
Yard Accidents: All accidents that take place in a yard and does not involve a train are termed as Yard Accidents.		
1. Indicative Accidents: In real term they are not accidents but are serious potential hazards and include ‘F’, ‘G’ and ‘H’. Indicative accidents reveals out serious human error/equipment failure though didn’t end up in loss of railway property or casualties as prevented.	F	Averted Collision
	G	Breach of Block Rule
	H	Signal Passing at danger(Red)
2. Equipment Failure: These include all failure of railway equipment. Equipment failure may become reasons for consequential accidents.	J	Rolling Stock
	K	Permanent Way
	L	Overhead Wire
	M	Signaling and telecommunication equipment
3. Unusual incidents: These include cases related to law and order but not resulting into train accidents and other incidents under classification ‘N’, ‘P’, ‘Q’ and ‘R’.	N	Train Wrecking or Sabotage to a train
	P	Casualties
	Q	Other Incidents
	R	Miscellaneous

Despite this, Indian Railways disclaims the responsibility and categorizes these fatalities as the result of passenger negligence or failure to follow rules. When we take NCRB Statistics on railway-related fatalities into account, the safety of railway passengers falls drastically, as shown in Figure 4.2 below.



**Figure 4.2 Deaths per 100 KM/year in Indian Railways vis-a-vis Highways**

As shown above, inclusion of NCRB statistics makes railways less safe than travelling on State Highway [2].

#### **4.7 Conclusion and Role of Supreme Audit Institution**

Indian Railways is the lifeline of this vast country, providing cheap and safe transportation and has made commendable achievements in modernisation and reduction of accidents over the years. However, a vast and troubling segment of railway-related fatalities remains unaddressed. The stark disparity between the deaths reported by Indian Railways and those recorded by the National Crime Records Bureau reveals a critical gap in safety accountability and transparency. Tens of thousands of lives lost each year due to falls, trespassing, and being run over are routinely dismissed as instances of public negligence, rather than being examined as systemic failures that demand preventive action.

The C&AG of India, being the Supreme Audit institution, can initiate performance audits that go beyond operational accidents and examine deaths caused by falls, trespassing, and run-over cases. These deaths, though not currently categorized under "consequential accidents," represent a significant public safety

---

[2]While NCRB reports statistics of accident deaths per 100Km on National and State Highways, there are no such statistics for Railways. The figure 34 is arrived at by dividing the total railway-related accident deaths by the total Route Km of Indian Railways in 100s.



failure, especially when basic measures such as fencing, warnings for non-stopping trains, and passenger awareness mechanisms are inadequate. C&AG had commented in audit reports on flaws in utilization of Rashtriya Rail Sanraksha Kosh' (RRSK) Fund. The scope of RRSK may be expanded to include the safety of passengers and the public.

The Indian Railways' primary responsibility is running trains with safety and punctuality, and it has inherent limitations in enforcing law and order and safety rules for the public at large. Collaboration among the Railways, the Government of India and State Governments is imperative to have a comprehensive oversight and a commitment to prevent all railway-related fatalities and transform the organization into a truly safe, accountable, and humane transport system for the nation.

---

### **Data Availability**

No new data introduced

### **Ethics Statement**

No violation declared

### **Funding**

Not applicable

### **Conflict of Interest**

None

### **Acknowledgements**

None

---

### **References**

1. Comptroller & Auditor General of India. Performance Audit Report on Derailments in India C&AG Report No 22 of 2022.  
[https://cag.gov.in/webroot/uploads/download\\_audit\\_report/2022/Report-No.-22-of-2022\\_Railway\\_English\\_DSC-063a2dda55f3ce6.38649271.pdf#](https://cag.gov.in/webroot/uploads/download_audit_report/2022/Report-No.-22-of-2022_Railway_English_DSC-063a2dda55f3ce6.38649271.pdf#).
2. Commissioner of Railway Safety , Annual Reports. n.d. [https://crs.gov.in/?page\\_id=714](https://crs.gov.in/?page_id=714).
3. Commissioner of Railway Safety, Organizational Tree.
4. Indian Railway Accident Manual. 2012.  
<https://scr.indianrailways.gov.in/cris/uploads/files/1348039393516-Accident%20Manual--final.pdf>.
5. Indian Railway. n.d. Indian Railway Annual Report.  
[https://indianrailways.gov.in/railwayboard/view\\_section.jsp?lang=0&id=0,1,304,366,554](https://indianrailways.gov.in/railwayboard/view_section.jsp?lang=0&id=0,1,304,366,554).
6. Indian Railway, Annual Report. 2023-24. Annual Report-Chapter Safety Page-55.  
[https://indianrailways.gov.in/railwayboard/uploads/directorate/stat\\_econ/2025/Indian%20Railways%20Annual%20Report%20%20Accounts%202023-24%20-English.pdf#page=55](https://indianrailways.gov.in/railwayboard/uploads/directorate/stat_econ/2025/Indian%20Railways%20Annual%20Report%20%20Accounts%202023-24%20-English.pdf#page=55).