CHAPTER – 1A

TRAFFIC ACCIDENTS

Introduction

India has a well-knit and coordinated system of transport which plays an important role in development of economic activities by promoting fair distribution of produced goods and services and movement of people. The share of transport sector in Gross Domestic Product (GDP) of India is steadily growing. It is one of the key indicators in assessment of socio-economic development of the country. Since traffic accidents are indicator of bottlenecks and other hindrances in smooth flow of traffic, hence NCRB collects detailed data on traffic accidents including road accidents for inferring the trend and patterns of traffic accidents for the planners to devise appropriate preventive strategies.

The Bureau collects data on 'Traffic Accidents' comprising of (i) Road Accidents (ii) Railway Accidents and (iii) Railway Crossing Accidents, as these are the major contributors of accidental deaths.

Number of 'Traffic Accidents' in the country have increased from 4,72,467 in 2022 to 4,91,190 in 2023. (The rate of deaths in road accidents per thousand vehicles has increased from 0.52 in 2022 to 0.53 in 2023). Maximum increase in number of traffic accidents cases in States from 2022 to 2023 was reported in Nagaland (from 29 to 44) followed by Puducherry (from 1,190 to 1,317), Karnataka (from 39,765 to 43,440), Arunachal Pradesh (from 215 to 234) and Ladakh (from 268 to 289). **[Table–1A.1]**.

These traffic accidents resulted in injuries to 4,51,228 persons and 1,97,871 deaths during 2023. State of Uttar Pradesh (28,103 deaths) followed by Tamil Nadu (20,279 deaths) and Maharashtra (18,879 deaths) have reported maximum fatalities in traffic accidents in the country; these 3 States accounted for 14.2%, 10.2% and 9.5% of total deaths in traffic accidents respectively and collectively accounted for 34.0% (67,261 out of 1,97,871) of total fatalities reported at all India level during 2023.

The percentage share of traffic accidental deaths in total deaths due to 'Other Causes' has increased from 43.9% in 2019 to 45.2% in 2023. A sharp decline was seen in total number of deaths in 'Traffic Accidents' from 2019 to 2020, which has increased in 2021 but this number in 2021 is less than that in 2019. In 2022, it raised to 1,94,347. Total number of Accidental deaths have increased by 1.8% (from 1,94,347 to 1,97,871) in 2023 over 2022 .[**LIST-1A.1**].

These traffic accidents comprise of 4,64,029 road accidents, 24,678 railway accidents and 2,483 railway crossing accidents and caused 1,73,826, 21,803 and 2,242 deaths respectively during 2023.

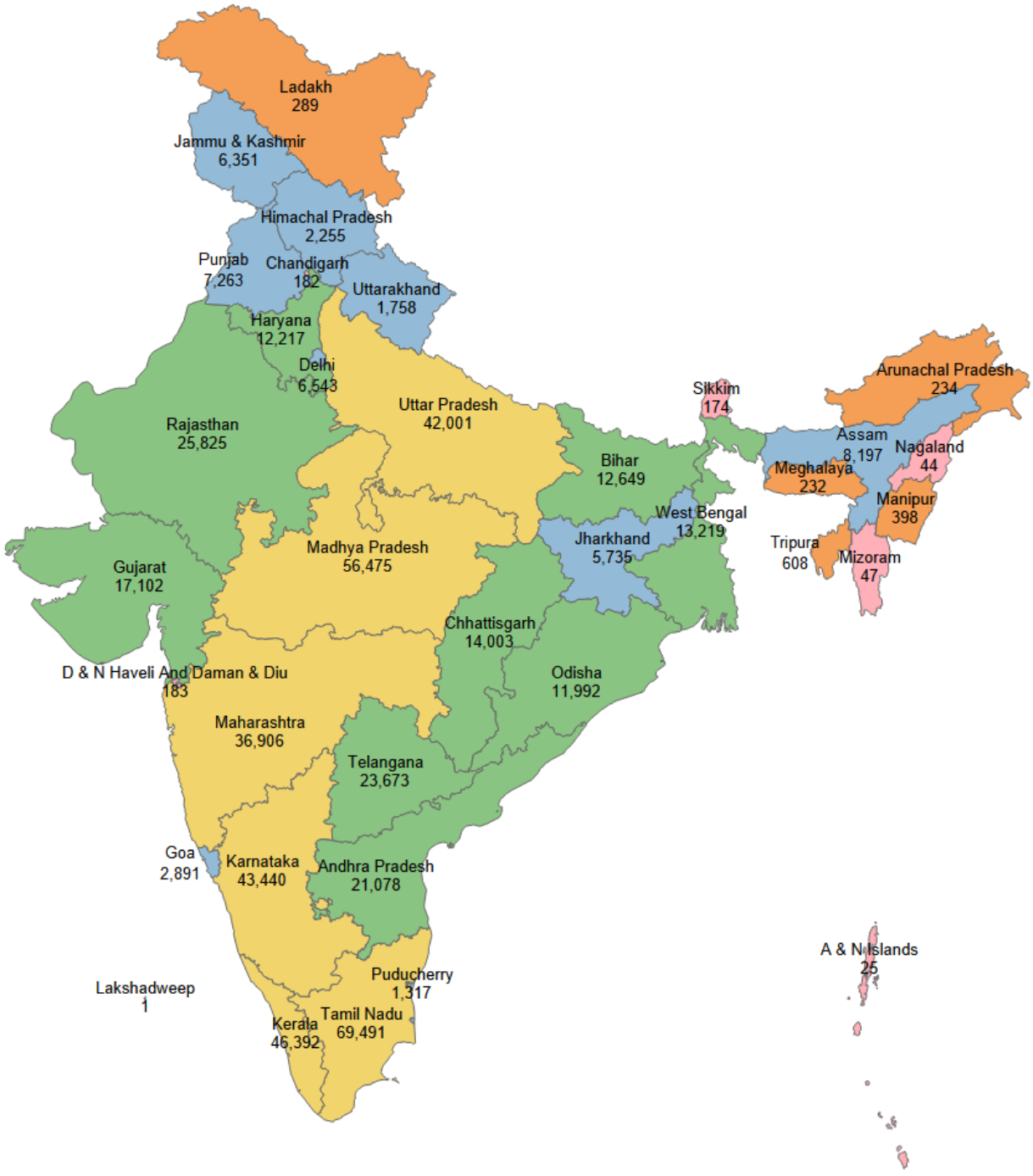
LIST–1A.1

Number and Share of Deaths due to Traffic Accidents during 2019 – 2023

Sl. No.	Year	Number of Accidental Deaths					Percentage Share of 'Traffic Accidental Deaths' in Accidental Deaths due to 'Other Causes'
		Road Accidents	Railway Accidents	Railway Crossing Accidents	Total Traffic Accidents	Total Accidental Deaths due to 'Other Causes'	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	2019	1,54,732	24,619	1,762	1,81,113	4,12,959	43.9%
2	2020	1,33,201	11,968	1,185	1,46,354	3,66,992	39.9%
3	2021	1,55,622	16,431	1,807	1,73,860	3,90,404	44.5%
4	2022	1,71,100	20,792	2,455	1,94,347	4,22,444	46.0%
5	2023	1,73,826	21,803	2,242	1,97,871	4,37,660	45.2%

- As per data provided by States/UTs.

FIGURE–1A.1
STATE/UT – WISE TRAFFIC ACCIDENT CASES DURING 2023



FIGURE–1A.2
STATE/UT – WISE TRAFFIC ACCIDENT DEATHS DURING 2023



- As per data provided by States/UTs.

Month - wise patterns of traffic accidents reveal that maximum number of 'Traffic Accidents' have occurred in the month of May which accounted for 9.0%.The month-wise break-up of 'Traffic Accidents' for each State/UT/City are presented in **Table-1A.5**.

Time of occurrence - wise analysis of traffic accidents reveal that maximum number of 'Traffic Accidents' have taken place during 18:00 hrs – 21:00 hrs and 15:00 hrs – 18:00 hrs, accounting for 20.4% (1,00,138) and 17.1% (84,039) of total traffic accidents (4,91,190) respectively during the year 2023. State/UT- wise 'Traffic Accidents' by time of occurrence is presented in **Table-1A.6**.

Road Accidents

The Bureau has made an effort to capture comprehensive information on road accidents using the revised proformae and published the first report for the year 2014 and this edition is tenth in the series.

A total of 4,64,029 road accident cases were reported during 2023. Road accident cases in the country have increased from 4,46,768 in 2022 to 4,64,029 in 2023 **[Table-1A.1]**. The fatalities in road accidents have increased by 1.6% (from 1,71,100 in 2022 to 1,73,826 in 2023). The **LIST–1A.2** can be referred to see the patterns of 'Road Accidental Deaths'.

The number of vehicles, number of road accidents along with resultant fatalities and injuries therefrom, their percentage variations over previous year and the rate of accidental deaths per thousand vehicles during the last five years are presented in **LIST–1A.2**. It is observed that the rate of deaths per thousand vehicles in 2023 has increased from 0.52 in 2022 to 0.53 in 2023.

4,64,029 road accidents caused 1,73,826 deaths and injuries to 4,47,969 persons during 2023. Generally road accidents have caused more injuries than deaths, but in A & N Islands, Jharkhand, Punjab, Bihar and Uttar Pradesh, road accidents caused more deaths compared to persons injured. In A & N Islands, 25 road accidents caused 27 deaths & injuries to 11 persons, in Jharkhand, 5,316 road accidents caused 4,173 deaths and injuries to 3,586 persons, in Punjab, 6,276 road accidents caused 4,906 deaths and injuries to 3,305 persons, in Bihar, 11,014 road accidents caused 8,873 deaths and injuries to 6,539 persons, and in Uttar Pradesh, 37,764 road accidents caused 23,947 deaths and injuries to 23,843 persons. **[Table-1A.2]**.

LIST–1A.2

Growth in Number of Vehicles and Road Accidents in India (2019–2023)

Sl. No.	Year	Road Accidents (in thousand)	% Variation over Previous Year	Persons Injured (in thousand)	% Variation over Previous Year	Persons died (in Nos.)	% Variation Over Previous Year	No. of Vehicles (In Thousand)#	% Variation over previous Year	Rate of Deaths per thousand Vehicles (Col.7/Col.9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	2019	437.4	-1.8	439.2	-1.6	1,54,732	1.3	2,95,772	8.5	0.52
2	2020	354.8	-18.9	335	-23.7	1,33,201	-13.9	2,95,772*	-	0.45
3	2021	403.1	13.6	371.9	11.0	1,55,622	16.8	2,95,772*	-	0.53
4	2022	446.8	10.8	423.2	13.8	1,71,100	9.9	3,26,299	10.3	0.52
5	2023	464.0	3.9	448.0	5.9	1,73,826	1.6	3,26,299*	-	0.53

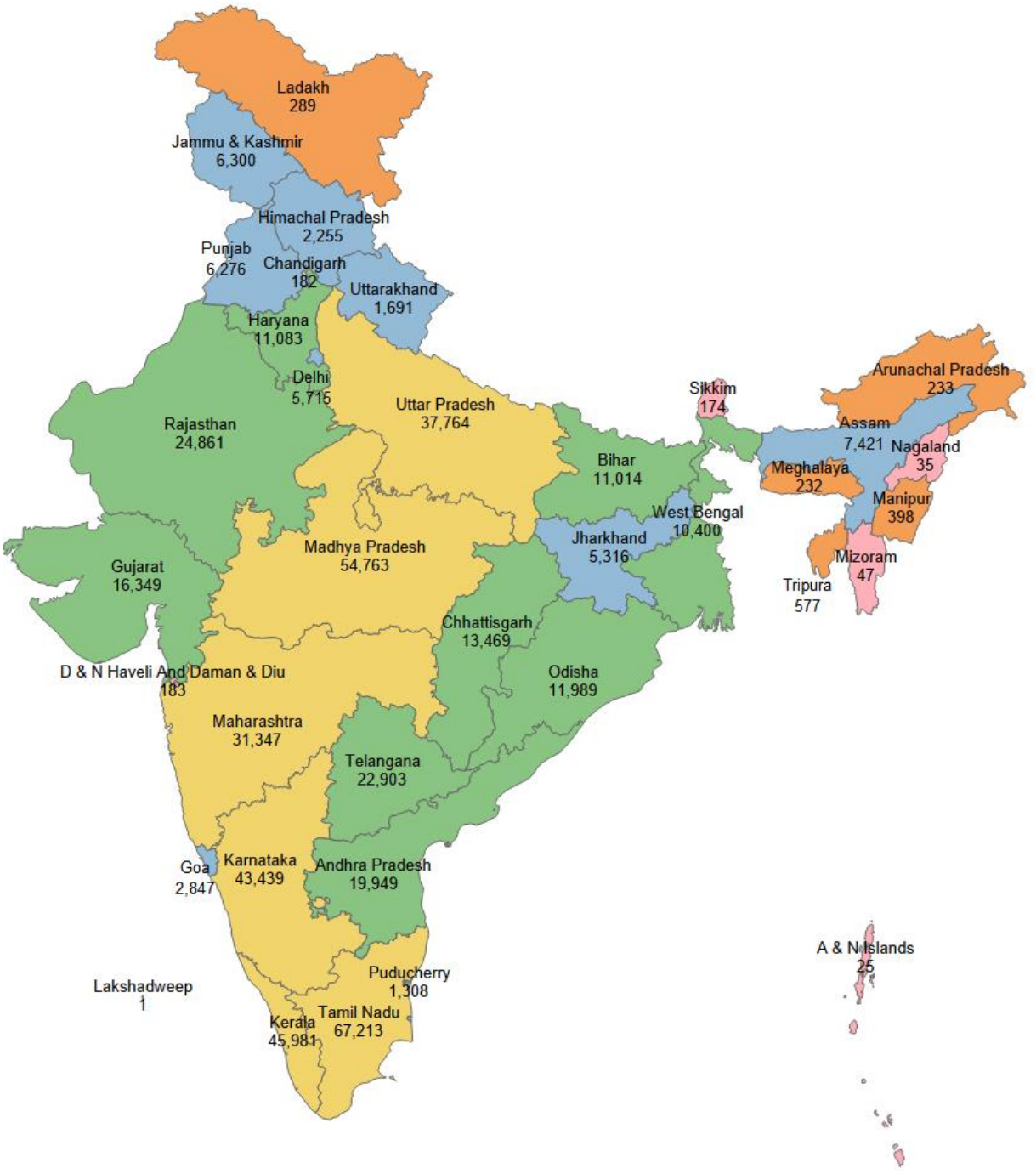
'#' Source: Road Accidents in India - 2022, TRW, MoRT&H, as per latest published data.

'*' figures of the previous year used due to non-availability of data.

'+' for calculation, figures of previous year regarding number of vehicles has been used due to unavailability of data.

- As per data provided by States/UTs.

FIGURE–1A.3
STATE/UT – WISE ROAD ACCIDENT CASES DURING 2023



- As per data provided by States/UTs.

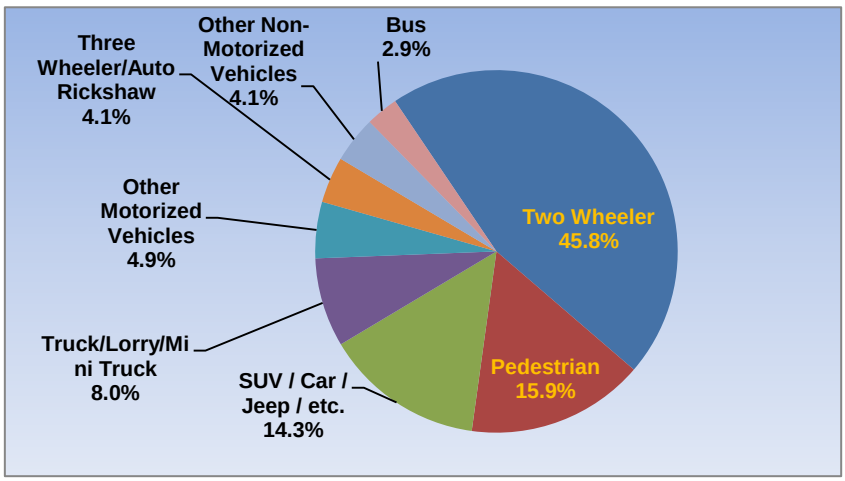
During 2023, two wheelers have accounted for maximum fatal road accidents (79,533 deaths), contributing 45.8% of total road accidental deaths, followed by Pedestrian (27,586 deaths) (15.9%) and SUV/Car/Jeep (24,776 deaths) (14.3%) [**Table-1A.3**].

Majority of deaths due to two wheelers accidents were reported in Tamil Nadu (11,490 deaths) and Uttar Pradesh (8,370 deaths), accounting for 14.4% and 10.5% of total deaths due to two wheeled vehicles respectively. Large number of deaths due to SUV/car/jeep accidents (4,768 out of 24,776) were reported in Uttar Pradesh (19.2%) of total such accidents and large number of deaths due to trucks/lorries/mini truck accidents (4,138 out of 13,823) were reported in Uttar Pradesh, accounting for 29.9%. 31.2% (1,572 out of 5,033) and 10.2% (512 out of 5,033) of total fatal road accidents due to buses were reported in Uttar Pradesh and Madhya Pradesh respectively. Deaths of 16.6% (4,577 out of 27,586) of pedestrians in road accidents were reported in Tamil Nadu during 2023 [**Table-1A.4**].

The month-wise distribution of 'Road Accidents' shows that most of road accidents were reported in the month of May 41,891 cases), contributing 9.0% of total road accidents. Majority of accidents in this month (May) have been reported in Tamil Nadu, accounting for 13.9% of total accidents reported (5,811 out of 41,891 cases) in the month of May **[Table-1A.5].**

FIGURE–1A.4

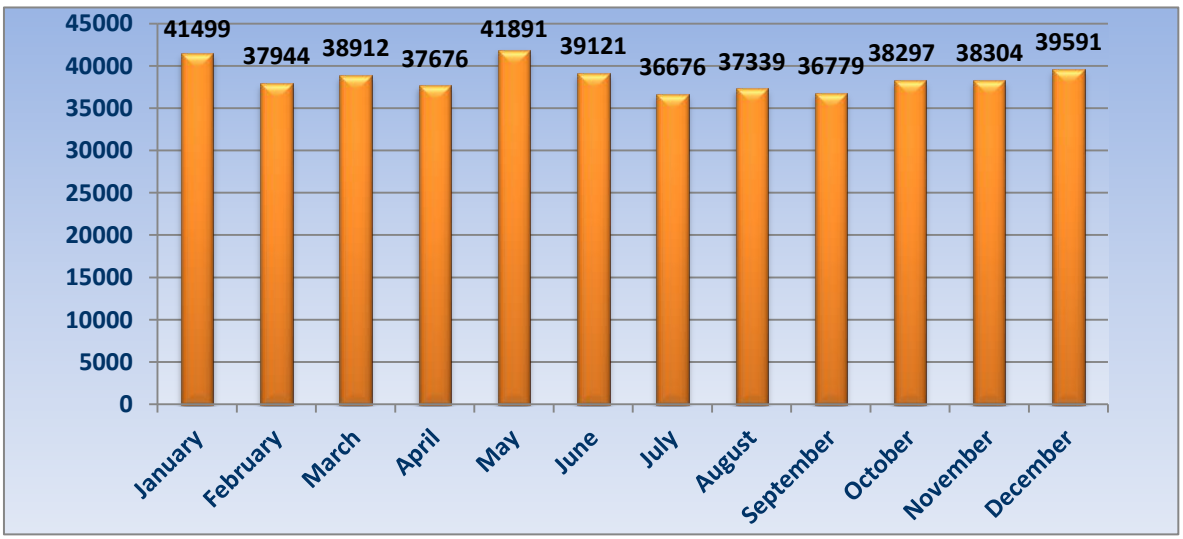
Vehicle wise Road Accident Deaths during 2023



Other Motorised Transport includes Tractor etc.

FIGURE–1A.5

Month-wise occurrence of Road Accidents during 2023



- As per data provided by States/UTs.

Most of road accidents (95,984 out of 4,64,029 cases) were reported during 18:00 hrs to 21:00 hrs (Night), accounting for 20.7% of total road accidents. During 18:00 hrs to 21:00 hrs (Night), majority of road accidents were reported in Tamil Nadu (17,159 cases), Madhya Pradesh (10,613 cases) and Kerala (9,542 cases). Time period '15:00 hrs to 18:00 (Day)' and '12:00 hrs to 15:00 hrs (Day)' accounted for 17.3% (80,482 cases) and 15.0% (69,397 cases) of total road accidents during 2023 [**Table-1A.6**].

Road-wise classification of accidents is presented in **Table-1A.7**. As per road classification, the National Highways which has a share of only 2.1% of total road length* (1.33 Lakh KMs out of 63.3 Lakh KMs) accounted for highest road accidents, contributing 30.3% of total road accidents. State Highways having the share of 2.8% (1.80 Lakh KMs) of total road length have reported 23.0% of road accidents in the country. However, a considerable number of road accidents were also reported on other roads. These accounted for 46.7% of total such accidents during 2023.

A total of 3,630 cases of road accidents were also reported on Expressways which caused injuries to 2,762 persons and deaths of 2,372 persons. The highest numbers of deaths in road accidents were reported on the National Highways accounting for 34.6% (60,127 out of 1,73,826) followed by State Highways (23.4%) (40,611 deaths). A total of 73,088 (42.0%) persons died due to road accidents on the other roads during 2023.

State/UT-wise patterns revealed that maximum fatalities in road accidents on the National Highways took place in Uttar Pradesh (11.7%) (7,041 out of 60,127 deaths) followed by Tamil Nadu (10.4%) (6,258 deaths), Maharashtra (8.5%) (5,104 deaths), Karnataka (7.0%) (4,230 deaths) and Madhya Pradesh (7.0%) (4,184 deaths) during 2023.

Maximum number of accidents on State Highways in the country occurred in Tamil Nadu (23,166 cases). Maximum fatalities in road accidents on State Highways were reported in Tamil Nadu (6,325 out of 40,611 deaths) which accounted for 15.6% of total deaths due to road accidents on State Highways, followed by Uttar Pradesh (6,018) (14.8%) during 2023. Maximum fatalities on the Expressways were reported in Uttar Pradesh contributing 67.8% (1,609 out 2,372) followed by Karnataka (7.9%), Maharashtra (6.5%), Haryana (5.8%) and Odisha (4.9%) during 2023. **[Table-1A.7]**

LIST–1A.3

Road Accidental Deaths in every 100 km-2023

(Road Category wise)

Type of Road	2023				
	Length of Road (in KM*)	Road Accident Cases	Total Number of Deaths	Cases per 100 KM	Deaths per 100 KM
National Highways	1,32,499#	1,40,750	60,127	106	45
State Highways	1,79,535#	1,06,476	40,611	59	23
Other Roads	60,19,723#	2,16,803	73,088	4	1
Total	63,31,757#	4,64,029	1,73,826	7	3

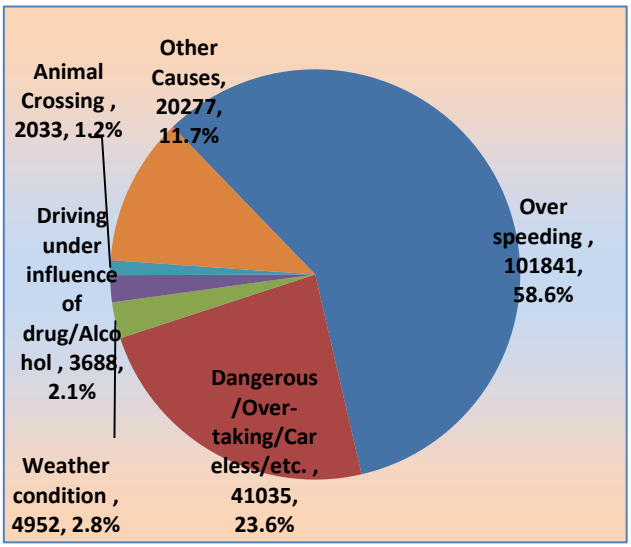
- As per data provided by States/UTs.

* Source: Road Accidents in India – 2022, Ministry of Road Transport & Highways.

figures of the previous year used due to non-availability of data.

Cause-wise distribution of road accidents (which also include unmanned railway crossing accidents) is presented in **Table-1A.8**. Cause-wise analysis of road accidents revealed that most of road accidents were due to over-speeding accounting for 61.4% of total accidents (2,84,733 out of 4,64,029 cases) which caused 1,01,841 deaths and injuries to 2,81,026 persons. Dangerous/careless driving or overtaking caused 1,10,064 accidents (23.7% of total accidents) which resulted in 41,035 deaths and injuries to 1,03,306 persons during 2023. 2.1% (9,669 out of 4,64,029 cases) of such accidents were due to poor weather condition . Driving under influence of drug/alcohol contributed 1.7% of total accidents which resulted in injuries to 7,038 persons & 3,688 deaths in the country.

FIGURE–1A.6
Major Causes of Road Accident Deaths during 2023



- As per data provided by States/UTs.

Cause - wise analysis of fatal road accidents revealed that 58.6% (1,01,841 out of 1,73,826 deaths) and 23.6% (41,035 out of 1,73,826 deaths) of fatalities in road accidents were due to over-speeding and dangerous/careless driving or overtaking respectively. Poor weather conditions, Driving under Influence of Drug/Alcohol and Animal Crossing caused 2.8% (4,952 deaths), 2.1% (3,688 deaths) and 1.2% (2,033 deaths) of total deaths due to road accidents respectively during 2023.

Large number of deaths in road accidents due to over-speeding was reported in Karnataka (11.0%) (11,174 out of 1,01,841 deaths) followed by Tamil Nadu (11.0%) (11,153 out of 1,01,841 deaths). Dangerous/careless driving or overtaking caused maximum fatalities in Uttar Pradesh (11,154 out of 41,035) which accounted for 27.2% of total deaths followed by 10.6% (4,357) deaths in Rajasthan. Maximum fatalities due to driving under influence of drug/alcohol were reported in Uttar Pradesh (30.7%) followed by Madhya Pradesh (16.4%), Jharkhand (7.8%) and Odisha (6.8%) during 2023 **[Table-1A.9].**

NIL accidental death was reported at un-manned railways crossings **[Table-1A.9].**

Place of occurrence - wise patterns of road accidents reveal that 60.2% of total accidents have occurred in rural areas (2,79,572) and 39.8% in urban areas (1,84,457) out of 4,64,029 total cases during 2023. Both in rural as well as urban area most of the accidents were reported at places near residential area. 30.9% (86,487 out of 2,79,572 cases) accidents in rural area and 30.2% (55,711 out of 1,84,457 cases) in urban area have taken place near residential area. 7.1% of road accidents in urban area took place at pedestrian crossing (13,094 out 1,84,457 cases). Besides, 7.1% (32,972 out of 4,64,029 cases) of road accidents in the country have taken place near schools, college or other educational institutions **[Table 1A.10].**

Uttar Pradesh followed by Tamil Nadu have reported 26.6% and 13.4% of total deaths due to road accidents near schools/college/other educational institutes in urban area respectively. Uttar Pradesh reported highest fatalities due to road accidents at places near to residential area (urban area) accounting for 18.2% (3,128 out of 17,165) of total such deaths during 2023 [**Table-1A.11**].

FIGURE–1A.7
STATE/UT – WISE ROAD ACCIDENT DEATHS DURING 2023



- As per data provided by States/UTs.

Railway Accidents

A total of 24,678 cases of 'Railway Accidents' were reported, showing an increase of 6.7% during the year 2023 over 2022 (23,139). 24,678 railways accidents caused injuries to 3,014 persons and 21,803 deaths during 2023 [**Table–1A.1 & 1A.2**].

Maximum railway accidents were reported in Maharashtra accounting for 22.5% (5,559 out of 24,678 cases) followed by Uttar Pradesh (13.0%) (3,212 cases). These two States have also reported highest fatalities in railways accidents, accounting for 15.8% (3,445 out of 21,803 deaths) in Maharashtra and 14.4% (3,149 deaths) in Uttar Pradesh of total deaths in railways accidents respectively. 2,115 out of 3,014 persons injured in railways accidents were reported in Maharashtra alone during 2023 **[Table 1A.2]**.

The month-wise distribution of 'Railway Accidents' shows that most of railway accidents were reported in the month of September (2,190 cases), contributing 8.9% of total railway accidents. Maharashtra (462 out of 2,190 cases) has reported maximum railways accidents in the month of September, accounting for 21.1% of total such accidents **[Table-1A.5]**.

Most of railway accidents (3,771 out of 24,678) have taken place during 18:00 hrs to 21:00 hrs (Night), accounting for 15.3% of total railway accidents. 15.0% (3,693 cases) railways accidents were reported during '09:00 hrs to 12:00 hrs (Day)'. Maharashtra has reported maximum accidents during 18:00 hrs to 21:00 hrs (Night) and 09:00 hrs to 12:00 hrs (Day), accounting for 16.6% (925 cases) and 14.6% (811 cases) respectively **[Table-1A.6]**.

State/UT - wise classification of railways accidents is presented in **Table-1A.12** and **Figure-1A.9**. The analysis of classification of railway accidents revealed that incidents of 'Fall from Trains or Collision with People at Track' constituted majority of railway accidents (74.9%) (18,480 out of 24,678). State of Maharashtra has reported the majority of such cases, accounting for 29.8% (5,507 out of 18,480 cases) of total cases of fall from train or collision of trains with people at track. A total of 15,878 persons died due to either fall from trains or collision of trains with people at tracks, accounting for 72.8% of total deaths in railway accidents (21,803 deaths).

State/UT - wise causes of railways accidents is presented in **Table-1A.13**. The causes include Fault of Driver, Sabotage, Signalmen's Error, Mechanical Failure and Other causes. Majority of States/UTs have furnished railways accidents under unclassified category 'Other Causes', a total of 24,562 out of 24,678 cases of railways accidents were furnished under 'Other Cause' (fall of persons from trains, persons coming under trains etc. come under this category). During 2023, a total of 56 cases of railways accidents occurred due to fault of driver. Mechanical defects (like poor design, track faults, bridge/tunnel collapse, etc.) caused 43 cases. In Jharkhand, a total of 47 persons died in railways accidents due to fault of driver. Mechanical defects (like poor design, track faults, bridge/tunnel collapse, etc.) led to loss of 43 lives in railways accidents during 2023.

Maximum railway crossing accidents were reported in Uttar Pradesh accounting for 41.3% (1,025 out of 2,483 cases) followed by West Bengal (32.4%) (805 cases) and Madhya Pradesh (15.1%) (375 cases). States of Uttar Pradesh, West Bengal and Madhya Pradesh have reported highest fatalities in railway crossing accidents, accounting for 44.9% (1,007 out of 2,242 deaths), 25.9% (581 deaths) and 16.7% (375 deaths) respectively during 2023 **[Table-1A.2]**.

Traffic Accidents in Cities

A total of 71,821 traffic accidents were reported in 53 cities during 2023. 71,821 traffic accidents caused injuries to 63,982 persons and 17,911 deaths. The maximum fatalities in traffic accidents was reported in Delhi City (2,085 deaths) followed by Jaipur (1,017 deaths) and Bengaluru (915 deaths) **[Table-1A.2]**.

Road Accidents (69,910 cases) accounted for 97.3% of total traffic accidents in 53 mega cities during 2023. Delhi (City) accounted for 8.2% (5,715 out of 69,910 cases) of total road

accidents reported in 53 mega cities followed by Bengaluru (7.1%) (4,980 cases) and Chennai (5.2%) (3,653 cases). The large number of fatal road accidents were reported in Delhi City (1,457 deaths) followed by Bengaluru (915 deaths), accounting for 9.0% and 5.7% of total deaths due to road accidents in 53 mega cities respectively during 2023.

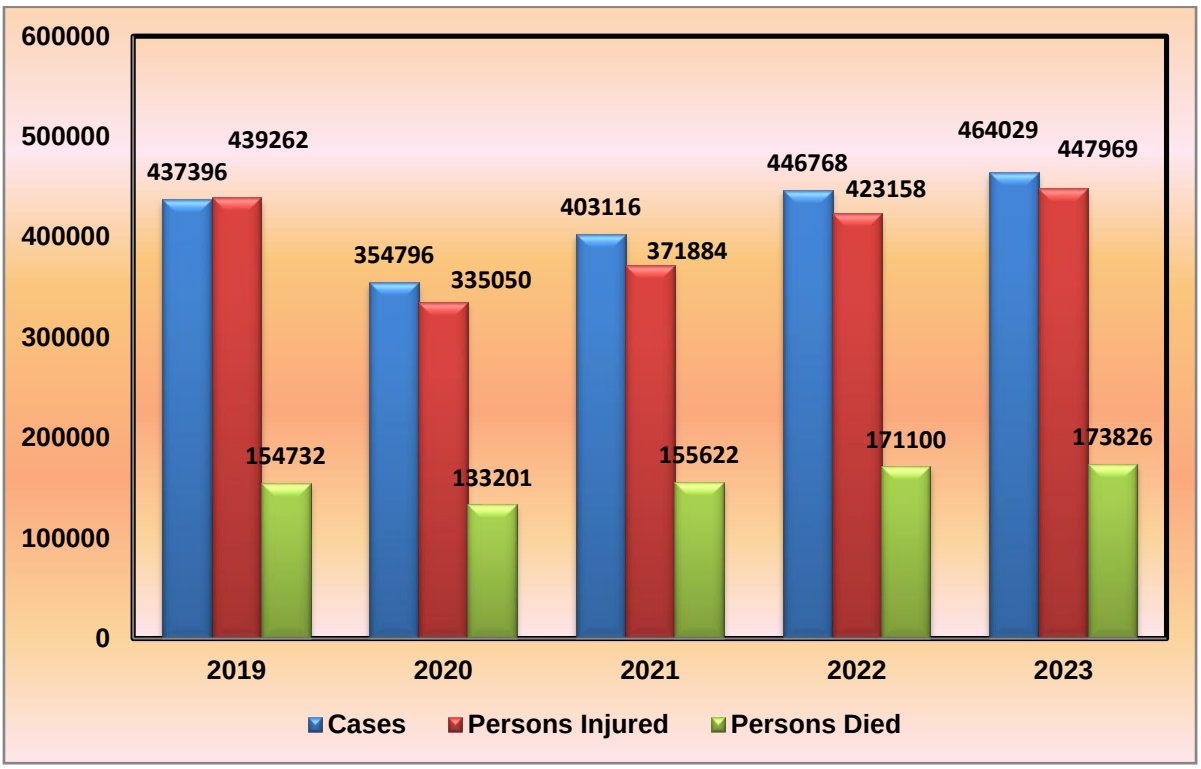
Cause-wise analysis of road accidents (including unmanned railway crossing) revealed that most of road accident deaths (including unmanned railway crossing) in 53 mega cities were due to over-speeding which accounted for 53.4% (8,635 out of 16,180 deaths) of total deaths due to road accidents during 2023. Dangerous or Careless driving/Over-taking etc. also caused 27.6% of total deaths due to road accidents (4,471out of 16,180 deaths). Driving under influence of drug/alcohol had caused 2.7% (436 out of 16,180 deaths) of fatalities in road accidents. Among 53 mega cities, most of fatalities due to driving under influence of drug/alcohol were reported in Kanpur (65 out of 436 deaths) **[Table-1A.9]**.

Place of occurrence – wise deaths in road accidents reveals that most of fatalities due to road accidents have taken place near residential area, contributing 30.4% (4,917 out of 16,180 deaths) of deaths in road accidents in 53 mega cities, followed by 8.9% (1,434 out of 16,180 deaths) near schools/ college/ other educational institutions and 7.2% near factory/industrial area (1,169 out of 16,180) deaths. Out of 53 mega cities, Delhi City (159 deaths) followed by Durg-Bhilainagar (115 deaths) have reported maximum cases of road accidents at pedestrian crossing **[Table-1A.11]**. As per road-wise classification of road accidents, 19.9% of total road accidents in 53 mega cities were reported at the National Highways. 26.3% of fatalities in road accidents were reported at the National Highways during 2023 **[Table-1A.7]**.

A total of 1,549 railway accidents were reported in 53 mega cities where in Delhi City (827) has reported maximum incidents by contributing 53.4% of total railway accidents during 2023.

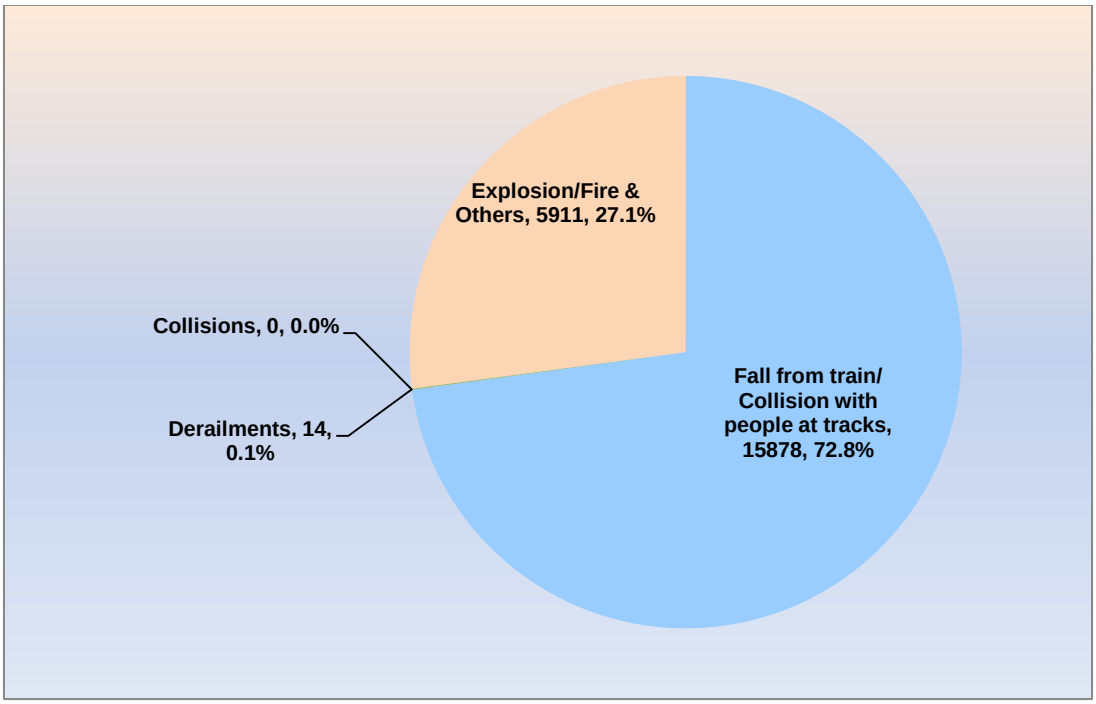
FIGURE–1A.8

Trend of Road Accident Cases, Persons Injured and Persons Died during 2019–2023



- As per data provided by States/UTs.

FIGURE–1A.9
Classification of Railway Accident Deaths during 2023



- As per data provided by States/UTs.

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