

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. 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 devising 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 decreased by 5.5% i.e. from 5,02,100 in 2016 to 4,74,515 in 2017. (Further, the rate of deaths in road accidents per thousand vehicles has decreased from 0.7 in 2016 to 0.6 in 2017). Maximum increase in number of traffic accidents cases in States was reported in Uttar Pradesh (from 34,543 in 2016 to 38,324 in 2017) followed by Haryana (from 12,543 in 2016 to 13,775 in 2017) and Bihar (from 9,982 in 2016 to 10,623 in 2017). On the other hand,

maximum decrease was reported in Arunachal Pradesh (from 227 in 2016 to 127 in 2017) [Table-1A.1].

4,74,515 traffic accidents resulted in injuries to 4,59,836 persons and 1,75,586 deaths during 2017. State of Uttar Pradesh (24,314 deaths) followed by Tamil Nadu (18,120 deaths) and Maharashtra (17,037 deaths) have reported maximum fatalities in traffic accidents in the country; these 3 States accounted for 13.8%, 10.3% and 9.7% of total deaths in traffic accidents respectively and collectively accounted for 33.9% (59,471 out of 1,75,586) of total fatalities reported at all India level during 2017.

The percentage share of traffic accidental deaths in total accidental deaths due to 'Other Causes' has increased from 44.1% in 2013 to 45.1% in 2017. A rising trend was seen in absolute number of deaths in 'Traffic Accidents' since 2013 to 2016, thereafter it decreased during 2017. Number of deaths have decreased by 1.3% (from 1,77,904 in 2016 to 1,75,586 in 2017) in 2017 over 2016 [Table-1A(A)].

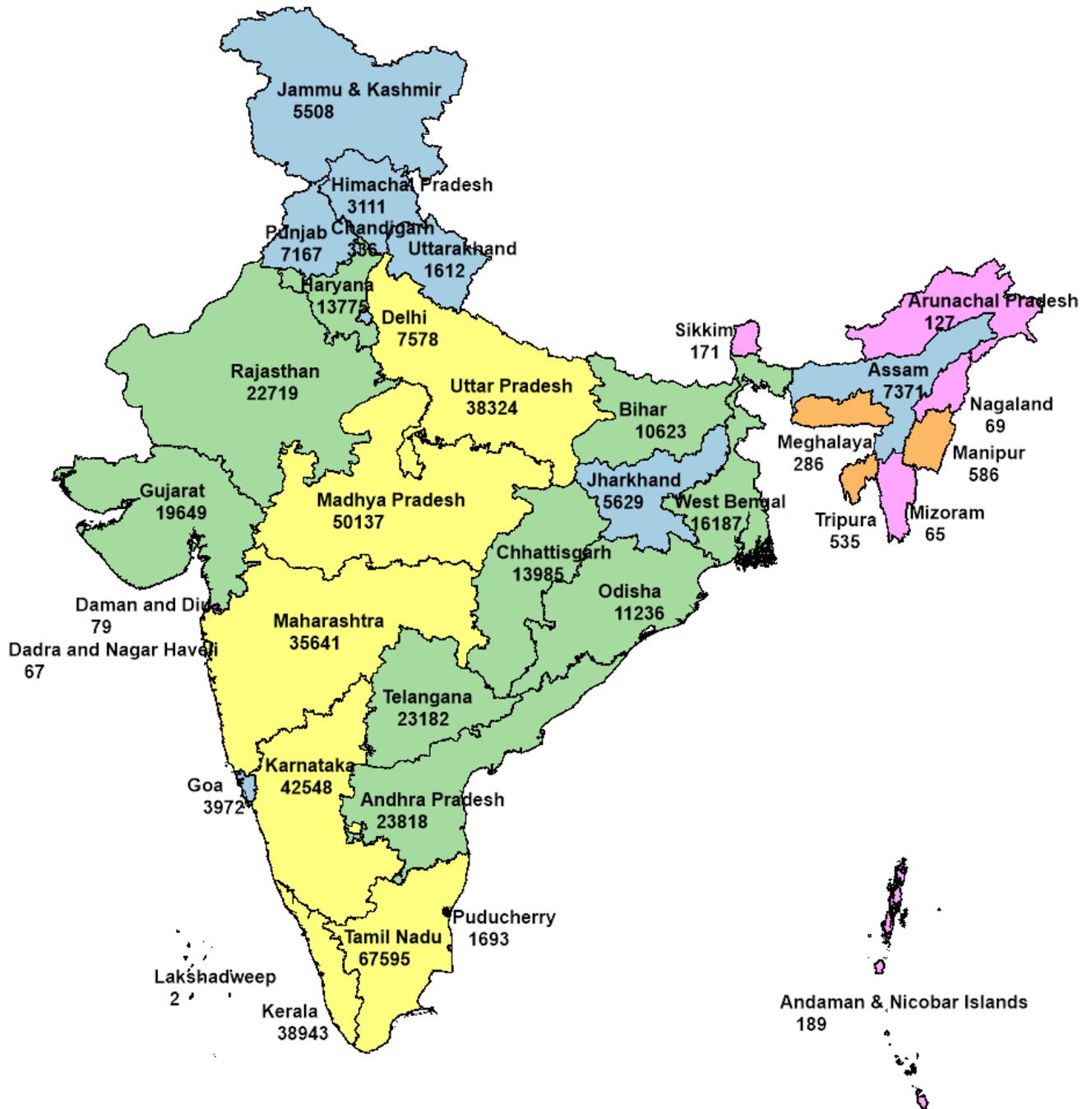
A total of 4,74,515 traffic accidents comprising of 4,45,730 road accidents, 27,197 railway accidents and 1,588 railway crossing accidents were reported; these accidents caused 1,50,093, 23,959 and 1,534 deaths respectively during 2017.

TABLE 1A(A)
Number and Share of Deaths due to Traffic Accidents during 2013 - 2017

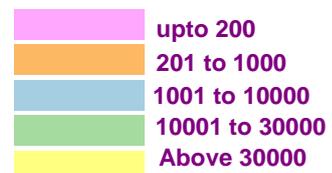
Sl. No.	Year	Number of Accidental Deaths				Total Accidental Deaths due to 'Other Causes'	Percentage Share of 'Traffic Accidental Deaths' in Accidental Deaths due to 'Other Causes'
		Road Accidents	Railway Accidents	Railway Crossing Accidents	Total Traffic Accidents		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	2013	1,37,423	27,765	1,318	1,66,506	3,77,758	44.1%
2	2014	1,41,526	25,006	2,575	1,69,107	4,31,556	39.2%
3	2015	1,48,707	26,066	2,650	1,77,423	4,13,457	42.9%
4	2016	1,51,801	22,970	3,133	1,77,904	4,09,537	43.4%
5	2017	1,50,093	23,959	1,534	1,75,586	3,89,441	45.1%

- As per data provided by States/UTs.

STATE/UT - WISE TRAFFIC ACCIDENT CASES DURING 2017



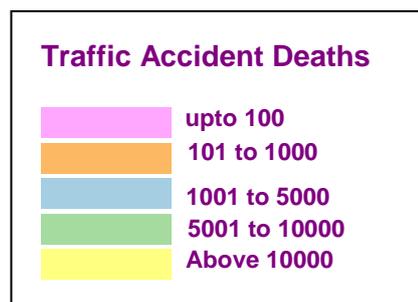
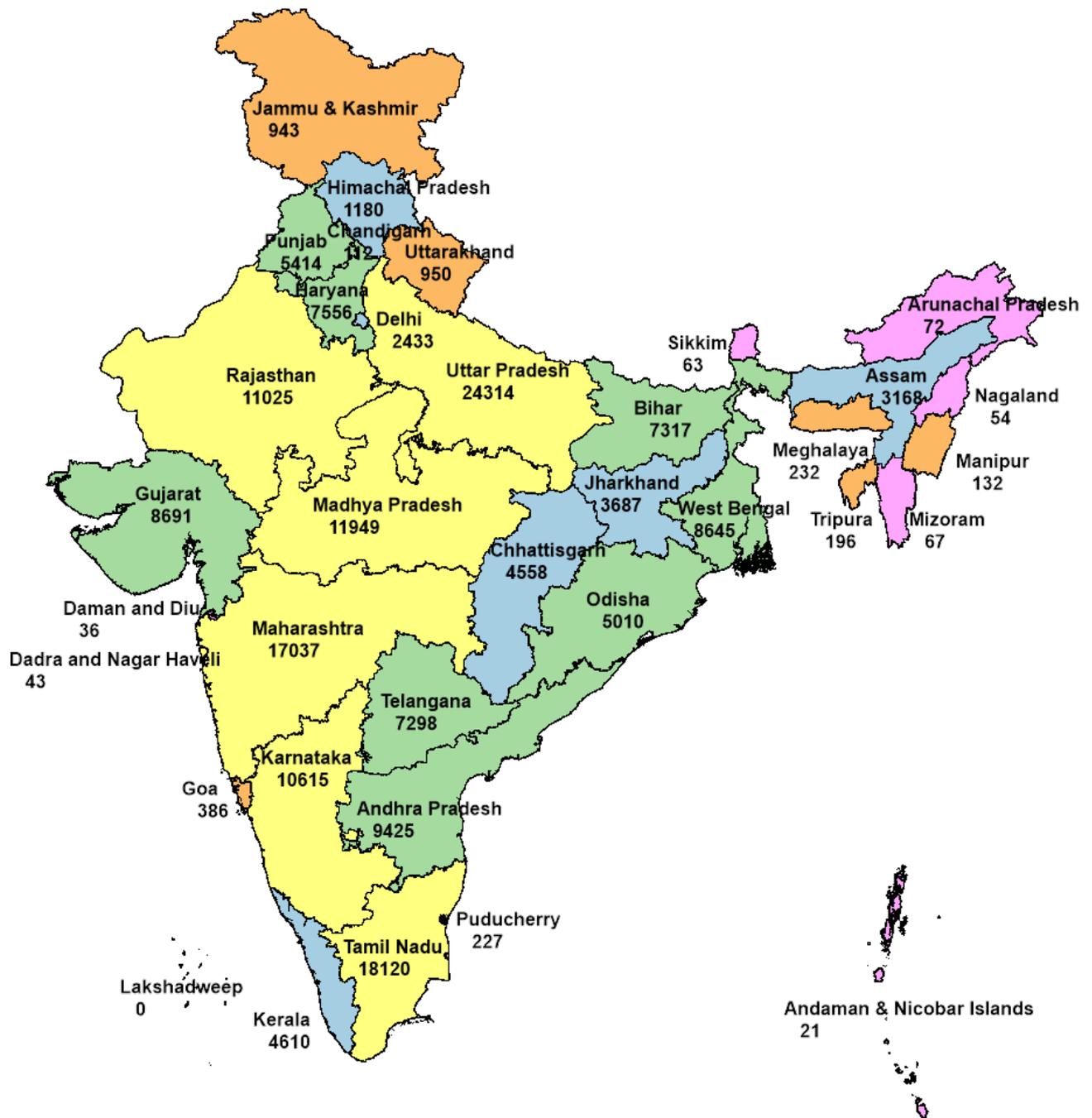
Traffic Accident Cases



• As per data provided by States/UTs.

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STATE/UT - WISE TRAFFIC ACCIDENT DEATHS DURING 2017



• As per data provided by States/UTs.

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Month - wise patterns of traffic accidents reveal that maximum number of 'Traffic Accidents' have occurred in the month of May which accounted for 9.2% (43,478 out of 4,74,515) of total traffic accidents during the year 2017. 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 17.8% (84,698 out of 4,74,515) and 17.2% (81,732 out of 4,74,515) of total traffic accidents respectively during the year 2017. 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 proforma and published the first report for the year 2014 and this edition is fourth in the series.

A total of 4,45,730 road accident cases were reported during 2017. Road accident cases in the country have decreased by 5.8%

(4,45,730 in 2017 from 4,73,050 in 2016) during 2017 compared to 2016 [**Table-1A.1**]. The fatalities in road accidents have decreased by 1.1% (from 1,51,801 in 2016 to 1,50,093 in 2017) during 2017 over 2016. The **Table - 1A(A)** 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 **Table-1A(B)**. It is observed that the rate of deaths per thousand vehicles has decreased marginally from 0.7 in 2016 to 0.6 in 2017, as the number of vehicles in the country have increased by 10.1% (from 23,00,31,000 in 2016 to 25,33,11,000 in 2017).

4,45,730 road accidents caused 1,50,093 deaths and injuries to 4,56,240 persons during 2017. Generally road accidents have caused more injuries than deaths, but in Mizoram and Punjab, road accidents caused more deaths compared to persons injured. In Mizoram, 65 road accidents caused 67 deaths and injuries to 46 persons and in Punjab, 6,322 road accidents caused 4,603 deaths and injuries to 4,161 persons. [**Table-1A.2**].

Table – 1A (B)
Growth in Number of Vehicles and Road Accidents in India (2013–2017)

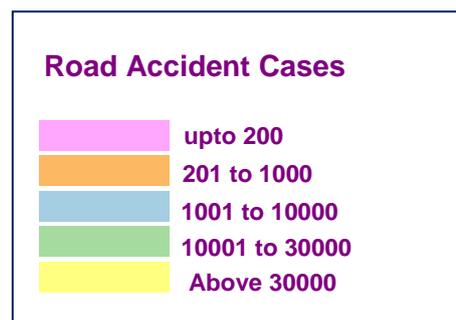
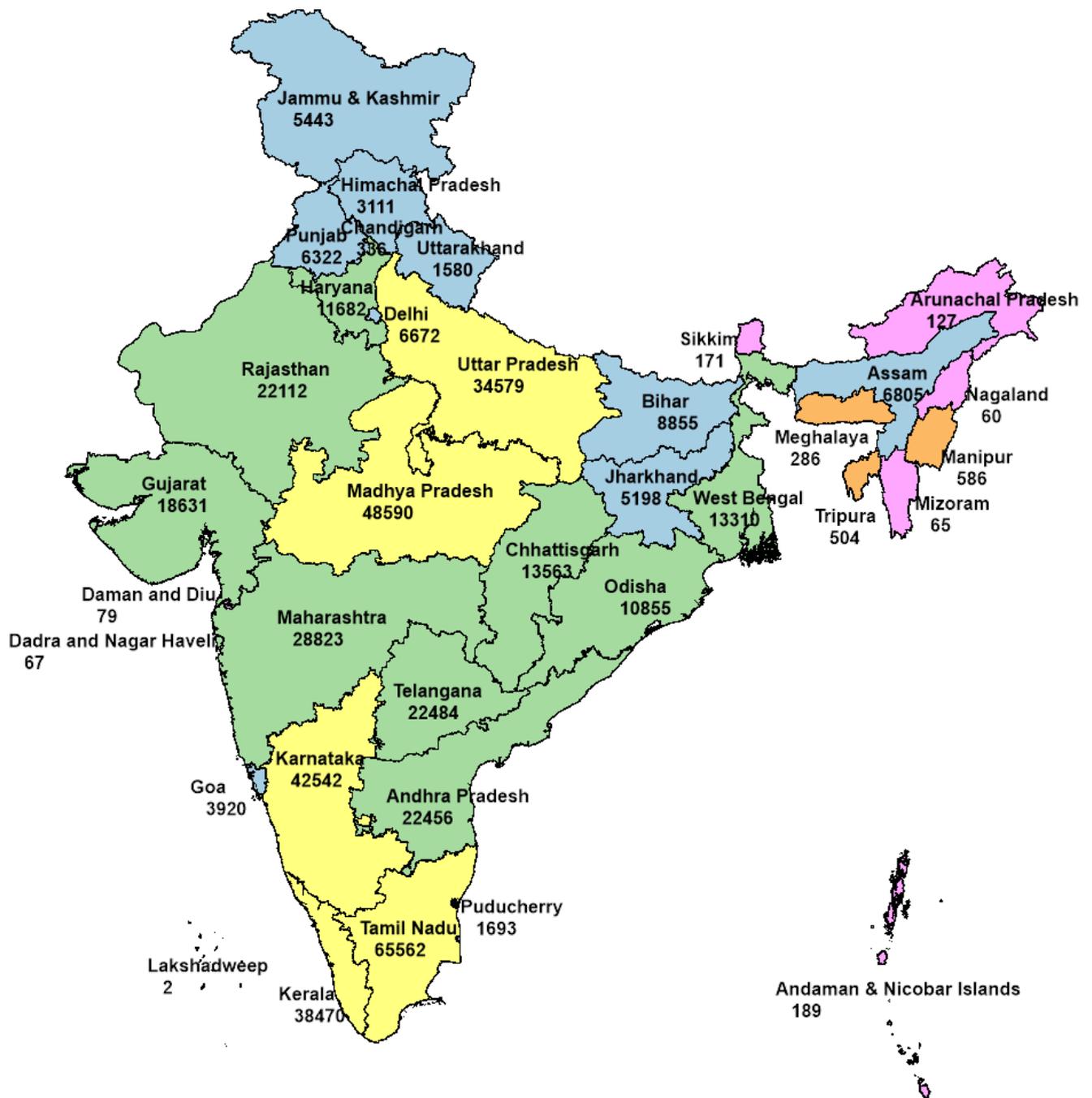
Sl. No.	Year	Road Accidents (in thousand)	% Variation over Previous Year	Persons Injured (in thousand)	% Variation over Previous Year	Persons Killed (in Nos.)	% Variation Over Previous Year	No. of Vehicles (In Thousand)#	% Variation over previous Year	Rate of Deaths per thousand Vehicles (Col.7/Col.9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	2013	443.0	0.7%	469.9	0.0%	1,37,423	-1.2%	1,82,445	14.4%	0.8
2	2014	450.9	1.8%	477.7	1.7%	1,41,526	3.0%	1,82,445*	-	0.8
3	2015	464.7	3.1%	482.4	1.0%	1,48,707	5.1%	2,10,023	15.1%	0.7
4	2016	473.0	1.8%	485.5	0.6%	1,51,801	2.1%	2,30,031	9.5%	0.7
5	2017	445.7	-5.8%	456.2	-6.0%	1,50,093	-1.1%	2,53,311	10.1%	0.6

Source: Road Accidents in India - 2018, TRW, MoRT&H, as per latest published data.

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

- As per data provided by States/UTs.

STATE/UT - WISE ROAD ACCIDENT CASES DURING 2017



• As per data provided by States/UTs.

Map Powered by DevInfo, UNICEF

During 2017, two wheelers have accounted for maximum fatal road accidents (52,359 deaths), contributing 34.9% of total road accidental deaths, followed by trucks/lorries (25,108 deaths) (16.7%), cars (20,937 deaths) (13.9%) and buses (10,699 deaths) (7.1%) [Table-1A.3].

Majority of deaths due to two wheelers accidents were reported in Uttar Pradesh (5,906 deaths) and Maharashtra (5,758 deaths), accounting for 11.3% and 11.0% of total deaths due to two wheeled vehicles respectively. Large number of deaths due to trucks/lorries accidents (5,026 out of 25,108) were reported in Uttar Pradesh, accounting for 20.0% and large number of deaths due to car accidents (2,770 out of 20,937) were also reported in Uttar Pradesh (13.2%) of total such accidents. 18.2% (1,946 out of 10,699) and 17.3% (1,856 out of 10,699) of total fatal road accidents due to buses were reported in Uttar Pradesh and Tamil Nadu respectively. 18.3% (1,584 out of 8,659) of pedestrians were died in road accidents was reported in Tamil Nadu during 2017 [Table-1A.4].

The month-wise distribution of 'Road Accidents' shows that most of road accidents were reported in the month of May (40,847 cases), contributing 9.2% of total road accidents. Majority of accidents in this month (May) have been reported in Tamil Nadu, accounting for 14.0% of total accidents reported (5,715 out of 40,847 cases) in the month of May [Table-1A.5].

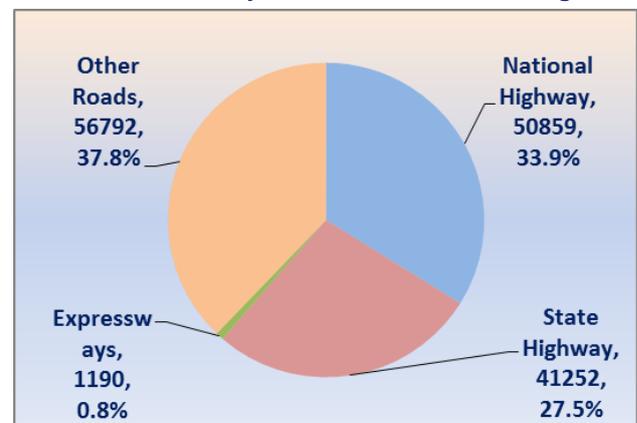
Most of road accidents (80,567 out of 4,45,730 cases) were reported during 18:00 hrs to 21:00 hrs (Night), accounting for 18.1% of total road accidents. During 18:00 hrs to 21:00 hrs (Night), majority of road accidents were reported in Tamil Nadu (14,486 cases), Madhya Pradesh (9,410 cases) and Karnataka (7,137 cases). Time period '15:00 hrs to 18:00 (Day)' and '12:00 hrs to 15:00 hrs (Day)' accounted for 17.5% (78,079 cases) and 15.5% (69,156 cases) of total road accidents during 2017 [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 1.9% of total road length* (1.14 Lakh KMs out of 58 Lakh KMs) accounted for highest road accidents, contributing 29.4% of total road accidents. State Highways having the share of 2.97% (1.75 Lakh KMs) of total road length have reported 25.1% of road accidents in the country. However, a considerable number of road accidents were also reported on other roads. These accounted for 44.9% of total such accidents during 2017.

A total of 2,415 cases of road accidents were also reported on Expressways which caused injuries to 1,970 persons and deaths of 1,190 persons. The highest number of deaths in road accidents was reported on the National Highways accounting for 33.9% (50,859 out of 1,50,093) followed by State Highways (27.5%) (41,252 deaths). A total of 56,792 persons died due to road accidents on the other roads during 2017.

Figure 1A.1
Accidental Deaths by Road Classification during 2017



- As per data provided by States/UTs.

State/UT-wise patterns revealed that maximum fatalities in road accidents on the National Highways took place in Uttar Pradesh (13.7%) (6,949 out of 50,859 deaths) followed by Tamil Nadu (11.6%) (5,892 deaths), Rajasthan (7.6%) (3,875 deaths), Karnataka (7.5%) (3,829 deaths) and Maharashtra (7.0%) (3,571 deaths) during 2017.

Maximum number of accidents on State Highways in the country occurred in Tamil Nadu (22,527 cases). Maximum fatalities in road accidents on State Highways were reported in Uttar Pradesh (6,331 out of 41,252 deaths) which accounted for 15.3% of total

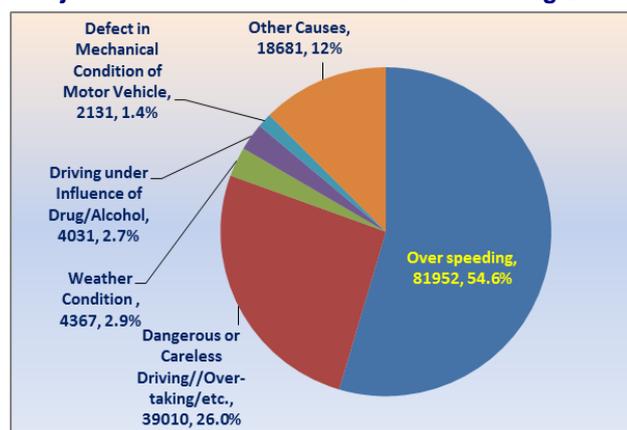
* Source: Road Accidents in India – 2018, Ministry of Road Transport & Highways

deaths due to road accidents on State Highways, followed by Tamil Nadu (13.8%) during 2017. Maximum fatalities on the Expressways was reported in Uttar Pradesh contributing 52.9% (629 out of 1,190) followed by Maharashtra (14.2%), Gujarat (13.1%), Jharkhand (6.1%) and Odisha (5.0%) during 2017 [Table-1A.7]

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 59.3% of total accidents (2,64,389 out of 4,45,807 cases) which caused 81,952 deaths and injuries to 2,81,371 persons. Dangerous/careless driving or overtaking caused 1,06,466 accidents which resulted in 39,010 deaths and injuries to 1,01,908 persons during 2017. 2.5% (11,277 out of 4,45,807 cases) of such accidents were due to poor weather condition. Driving under influence of drug/alcohol contributed 2.1% of total accidents which resulted in injuries to 8,418 persons & 4,031 deaths in the country.

Figure 1A.2

Major Causes of Road Accident Deaths during 2017



- As per data provided by States/UTs.

Cause - wise analysis of fatal road accidents revealed that 54.6% (81,952 out of 1,50,172 deaths) and 26.0% (39,010 out of 1,50,172 deaths) of fatalities in road accidents were due to over-speeding and dangerous/careless driving or overtaking respectively. Poor weather conditions and mechanical defects in motor vehicles caused 2.9% (4,367 deaths) and 1.4% (2,131 deaths)

of total deaths due to road accidents respectively during 2017.

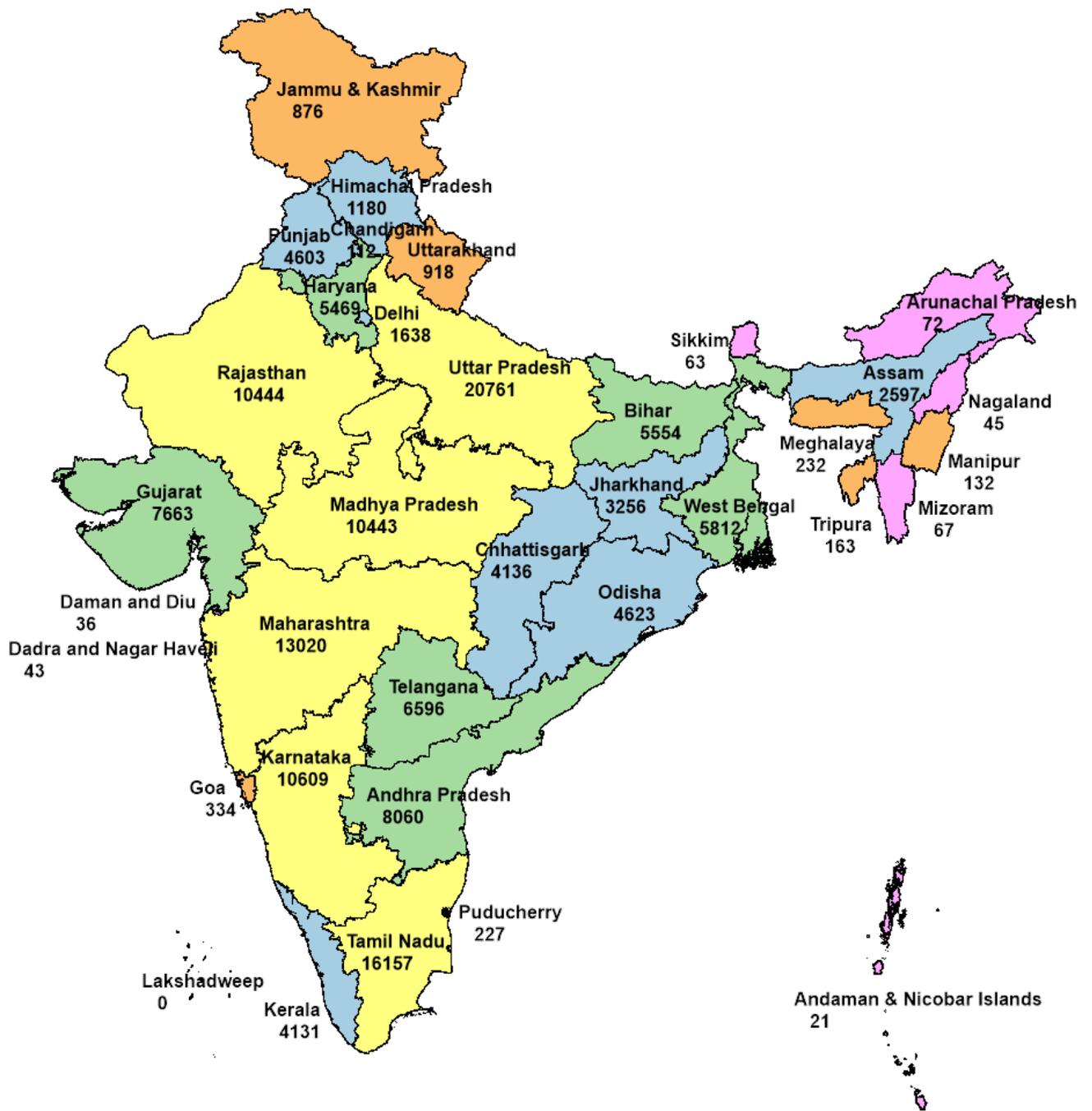
Large number of deaths in road accidents due to over- speeding were reported in Tamil Nadu (14.6%) (11,966 out of 81,952 deaths) followed by Karnataka (10.3%) (8,438 out of 81,952 deaths). Dangerous/careless driving or overtaking caused maximum fatalities in Uttar Pradesh (11,204 out of 39,010) which accounted for 28.7% of total deaths followed by 8.3% (3,246) deaths in Maharashtra. Maximum fatalities due to driving under influence of drug/alcohol were reported in Uttar Pradesh (18.3%) followed by Bihar (12.8%), Odisha (10.8%) and Jharkhand (10.5%) of total deaths in such road accidents in country respectively during 2017 [Table-1A.9].

A total of 79 accidental deaths were reported at un-manned railways crossing. 38.0% of such deaths were reported in Uttar Pradesh (30 out of 79 deaths) during 2017 [Table-1A.9].

Place of occurrence - wise patterns of road accidents reveal that 56.2% of total accidents have occurred in rural areas (2,50,618 out of 4,45,730 cases) and 43.8% in urban areas (1,95,112 out of 4,45,730 cases) during 2017. Both in rural as well as urban area most of the accidents were reported at places near residential area. 29.9% (74,952 out of 2,50,618 cases) accidents in rural area and 33.1% (64,665 out of 1,95,112 cases) in urban area have taken place near residential area. 4.8% of road accidents in urban area took place at pedestrian crossing (9,417, out of 1,95,112 cases) during 2017. Besides, 8.5% (37,848 out of 4,45,730 cases) of road accidents in the country have taken place near schools, college or other educational institutions during 2017 [Table 1A.10].

Uttar Pradesh followed by Tamil Nadu have reported 27.8% and 10.6% of total deaths due to road accidents near schools/college/other educational institutes in urban area respectively. Uttar Pradesh also reported highest fatalities due to road accidents at places near to residential area (urban area) accounting for 15.9% of total such deaths during 2017 [Table-1A.11].

STATE/UT - WISE ROAD ACCIDENT DEATHS DURING 2017



Map Powered by DevInfo, UNICEF

- As per data provided by States/UTs.

Railway Accidents

A total of 27,197 cases of 'Railway Accidents' were reported, showing an increase of 4.2% during the year 2017 over 2016 (26,111). 27,197 railway accidents caused injuries to 3,536 persons and 23,959 deaths during 2017 [**Table-1A.1 & 1A.2**].

Maximum railway accidents were reported in Maharashtra accounting for 25.1% (6,818 out of 27,197 cases) followed by Uttar Pradesh (11.1%) (3,016 cases). These two States have also reported highest fatalities in railway accidents, accounting for 16.8% (4,017 out of 23,959 deaths) and 11.9% (2,856 deaths) of total deaths in railways accidents respectively. 2,806 out of 3,536 persons injured in railway accidents were reported in Maharashtra alone during 2017 [**Table 1A.2**].

The month-wise distribution of 'Railway Accidents' shows that most of railway accidents were reported in the month of May (2,481 cases), contributing 9.1% of total railway accidents. Maharashtra (630 out of 2,481 cases) has reported maximum railway accidents in the month of May, accounting for 25.4% of total such accidents [**Table-1A.5**].

Most of railway accidents (4,388 out of 27,197) have taken place during 09:00 hrs to 12:00 hrs (Day), accounting for 16.1% of total railway accidents. 14.4% (3,920 cases) railway accidents were reported during '06:00 hrs to 09:00 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 30.2% (1,178 cases) and 24.8% (1,090 cases) respectively [**Table-1A.6**].

State/UT - wise classification of railway accidents is presented in **Table-1A.12**. 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 (71.2%) (19,370 out of 27,197). State of Maharashtra has reported the majority of such cases, accounting for 19.9% (3,848 out of 19,370 cases) of total cases of fall from train or collision of trains with people at track. A total of 17,249 persons died due to either fall from trains or collision of trains

with people at tracks, accounting for 72.0% of total deaths in railway accidents (23,959 deaths).

State/UT - wise causes of railways accidents is presented in **Table-1A.13**. Majority of States/UTs have furnished railways accidents under unclassified category 'Other Causes', a total of 26,631 out of 27,197 cases of railways accidents were furnished under 'Other Cause' (fall of persons from trains/ persons coming under trains, comes under this category). During 2017, a total of 38 cases of railways accidents occurred due to fault of driver. Mechanical defects (like poor design, track faults, bridge/tunnel collapse, etc.) caused 326, 114 and 36 railways accidents in Jharkhand, Uttar Pradesh and Maharashtra respectively. In Uttar Pradesh, a total of 28 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 496 lives in railways accidents during 2017.

Maximum railway crossing accidents were reported in Uttar Pradesh accounting for 45.9% (729 out of 1,588 cases) followed by Bihar (15.0%) (239 cases) and Kerala (9.8%) (155 cases). These States have also reported highest fatalities in railway crossing accidents, accounting for 45.4% (697 out of 1 534 deaths), 15.5% (238 deaths) and 10.1% (155 deaths) respectively during 2017 [**Table-1A.2**].

Traffic Accidents in Cities

A total of 73,334 traffic accidents were reported in 53 cities during 2017. 73,334 traffic accidents caused injuries to 62,434 persons and 16,885 deaths. The maximum fatalities in traffic accidents was reported in Delhi City (2,201 deaths) followed by Chennai (1,299 deaths) and Jaipur (860 deaths) [**Table-1A.2**].

Road Accidents (71,580 cases) accounted for 97.6% of total traffic accidents in 53 mega cities during 2017. Chennai accounted for 10.1% (7,257 out of 71,580 cases) of total road accidents reported in 53 mega cities followed by Delhi City (8.4%) (6,023 cases) and Bengaluru (7.1%) (5,064 cases). However, the large number of fatal road accidents were reported in Delhi City (1,406 deaths) followed

by Chennai (1,299 deaths), accounting for 9.2% and 8.5% of total deaths due to road accidents in 53 mega cities respectively during 2017.

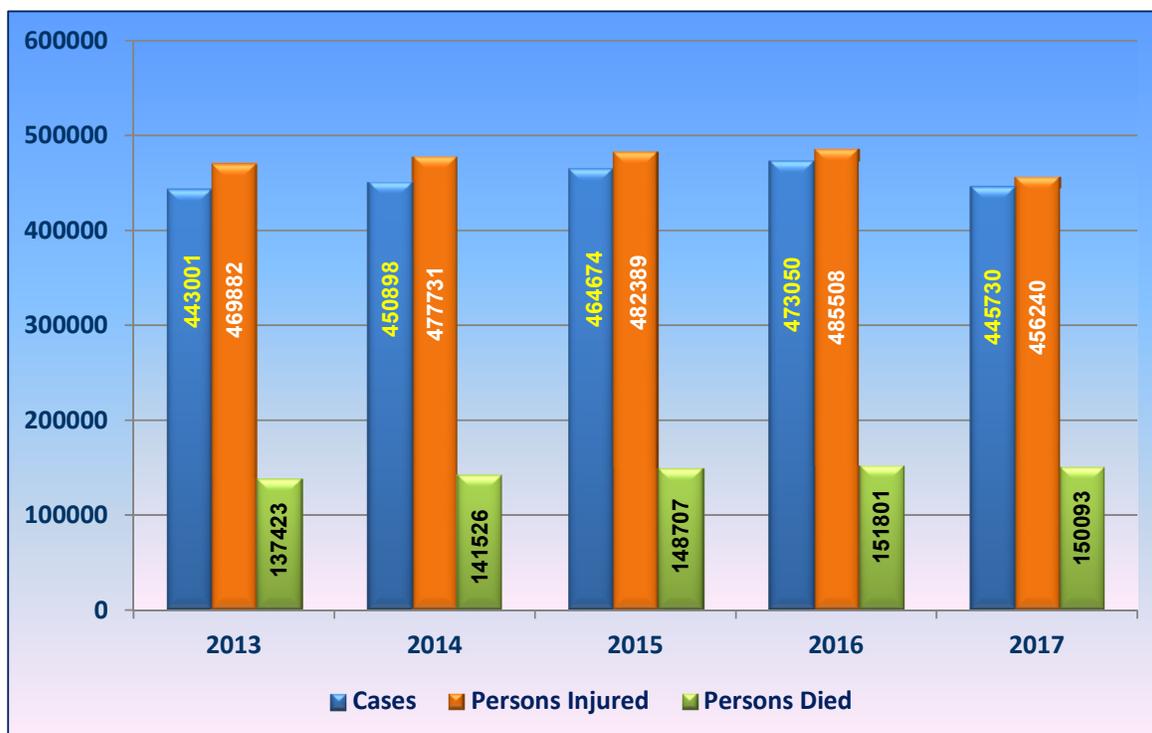
Cause-wise analysis of road accidents (including unmanned railway crossing) revealed that most of road accident deaths (including unmanned railway crossing) in 53 mega cities were due to over-speeding which accounted for 50.1% (7,647 out of 15,270 deaths) of total deaths due to road accidents during 2017. Dangerous or Careless Driving/Over-taking etc. also caused 28.9% of total deaths due to road accidents (4,415 out of 15,270 deaths). Driving under influence of drug/alcohol had caused 3.1% (476 out of 15,270 deaths) of fatalities in road accidents. Among 53 mega cities, most of fatalities due to driving under influence of drug/alcohol were reported in Patna (196 out of 476 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 36.1% (5,506 out of 15,247 deaths) of deaths in road accidents in 53 mega cities, followed by 8.3% near schools/college/other educational institutions (1,267 out of 15,247 deaths) and 8.0% (1,224 out of 15,247 deaths) near factory/industrial area. Out of 53 mega cities, Faridabad (139 deaths) followed by Mumbai (66 deaths) have reported maximum cases of road accidents at pedestrian crossing. As per road-wise classification of road accidents, 20.6% of total road accidents in 53 mega cities were reported at the National Highways. 27.1% of fatalities in road accidents were reported at the National Highways during 2017.

A total of 1,503 railway accidents were reported in 53 mega cities where in Delhi City has reported maximum incidents by contributing 59.3% of total railway accidents during 2017.

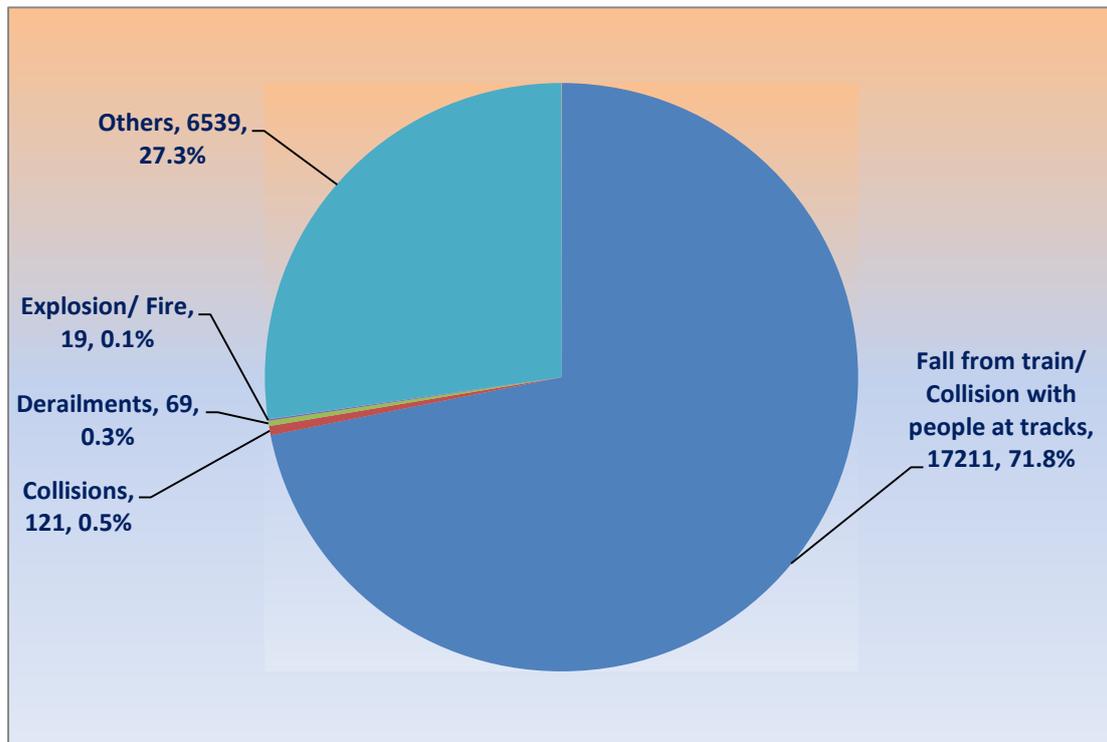
Figure 1A.3

Trend of Road Accident Cases, Persons Injured and Persons Died during 2013–2017



- As per data provided by States/UTs.

Figure 1A.4
Classification of Railway Accident Deaths during 2017



- As per data provided by States/UTs.
