

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 has started collecting detailed data on traffic accidents inter-alia road accidents for inferring on the trend and patterns of traffic accidents for devising appropriate preventive strategies.

The Bureau is collecting 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 by 3.1% (from 4,81,805 in 2014 to 4,96,762 in 2015) during 2015 compared to 2014. Maximum increase in traffic accidents cases was reported in Kerala (from 36,284 in 2014 to 39,343 in 2015) followed by Uttar Pradesh (from 30,429 in 2014 to 32,884 in 2015), Chhattisgarh (from 12,804 in 2014 to 14,977 in 2015). On the other hand, maximum decrease was reported in Maharashtra (from

52,369 in 2014 to 50,056 in 2015) [Table-1A.1].

4,96,762 traffic accidents resulted in injuries to 4,86,567 persons and 1,77,423 deaths during 2015. State of Uttar Pradesh (23,219 deaths) followed by Maharashtra (18,404 deaths) and Tamil Nadu (17,376 deaths) have reported maximum fatalities in traffic accidents in the country, these 3 States accounted for 13.1%, 10.4% and 9.8% of total deaths in traffic accidents respectively and collectively accounted for 33.2% (58,999 out of 1,77,423) of total fatalities reported at all India level during 2015.

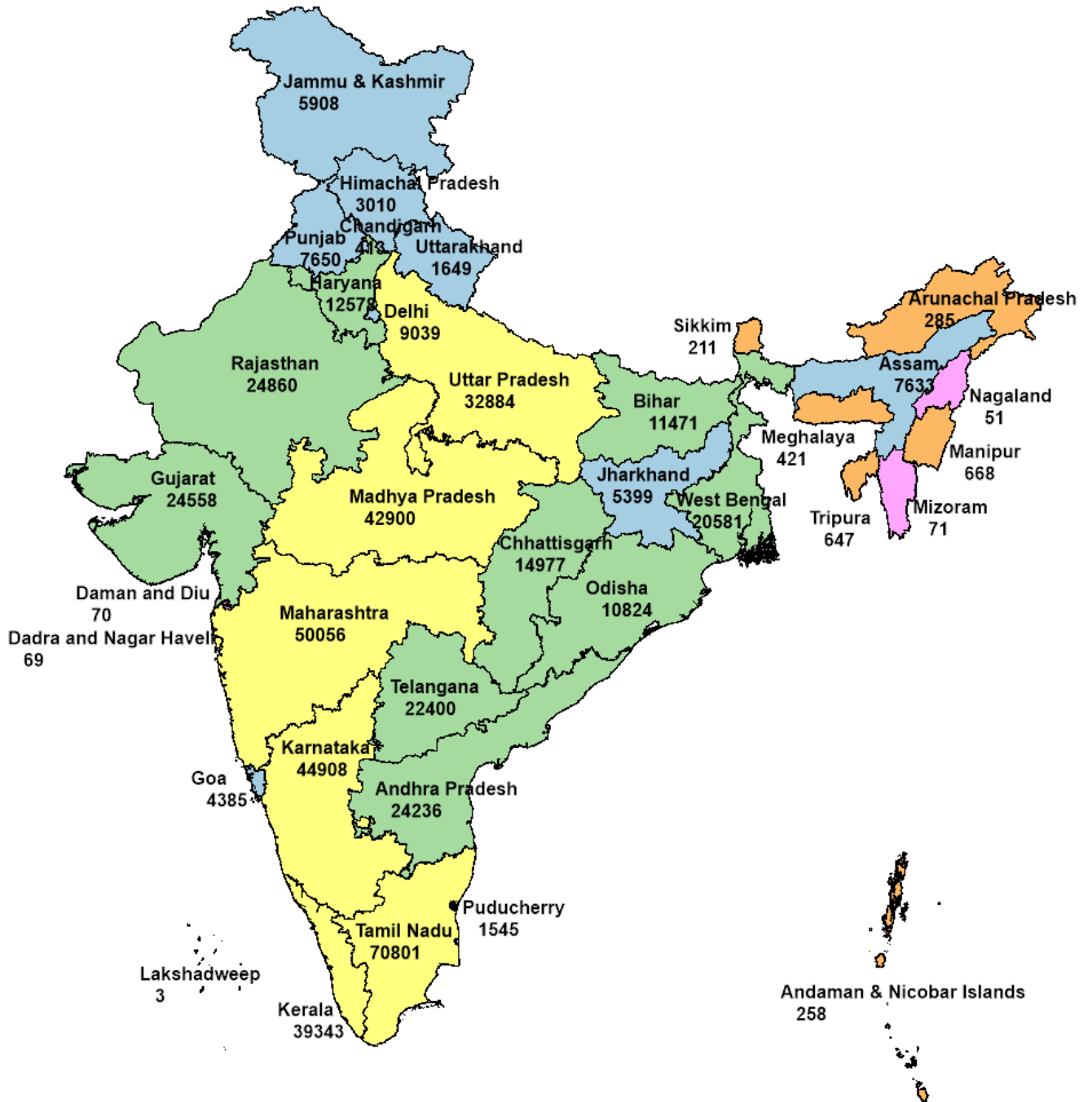
The proportional share of traffic accidents in total deaths due to un-natural causes has decreased from 45.0% in 2011 to 42.9% in 2015. However, a rising trend was seen in absolute number of deaths in 'Traffic Accidents' during the last three years 2013 - 2015. Number of deaths have increased by 4.9% (from 1,69,107 in 2014 to 1,77,423 in 2015) in 2015 over 2014 [Table-1A(A)].

A total of 4,96,762 traffic accidents comprising of 4,64,674 road accidents, 29,419 railway accidents and 2,669 railway crossing accidents were reported, these accidents caused 1,48,707, 26,066 and 2,650 deaths respectively during 2015.

TABLE 1A(A)
Number and Share of Deaths due to Traffic Accidents during 2011 - 2015

Sl. No.	Year	Number of Accidental Deaths				Total Traffic Accidents	Total Un-natural Accidents	Percentage Share of 'Traffic Accident Deaths' in Un-natural Accidental Deaths
		Road Accidents	Railway Accidents	Railway Crossing Accidents	Total Traffic Accidents			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1	2011	1,36,834	25,872	2,366	1,65,072	3,67,194	45.0%	
2	2012	1,39,091	27,402	1,808	1,68,301	3,72,022	45.2%	
3	2013	1,37,423	27,765	1,318	1,66,506	3,77,758	44.1%	
4	2014	1,41,526	25,006	2,575	1,69,107	4,31,556	39.2%	
5	2015	1,48,707	26,066	2,650	1,77,423	4,13,457	42.9%	

STATE/UT - WISE TRAFFIC ACCIDENT CASES DURING 2015

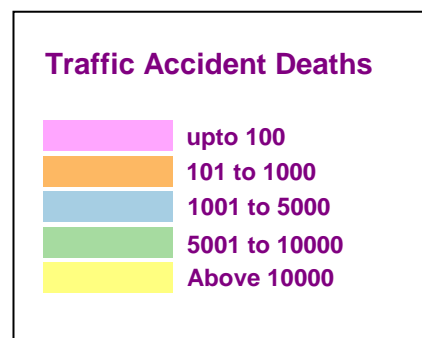
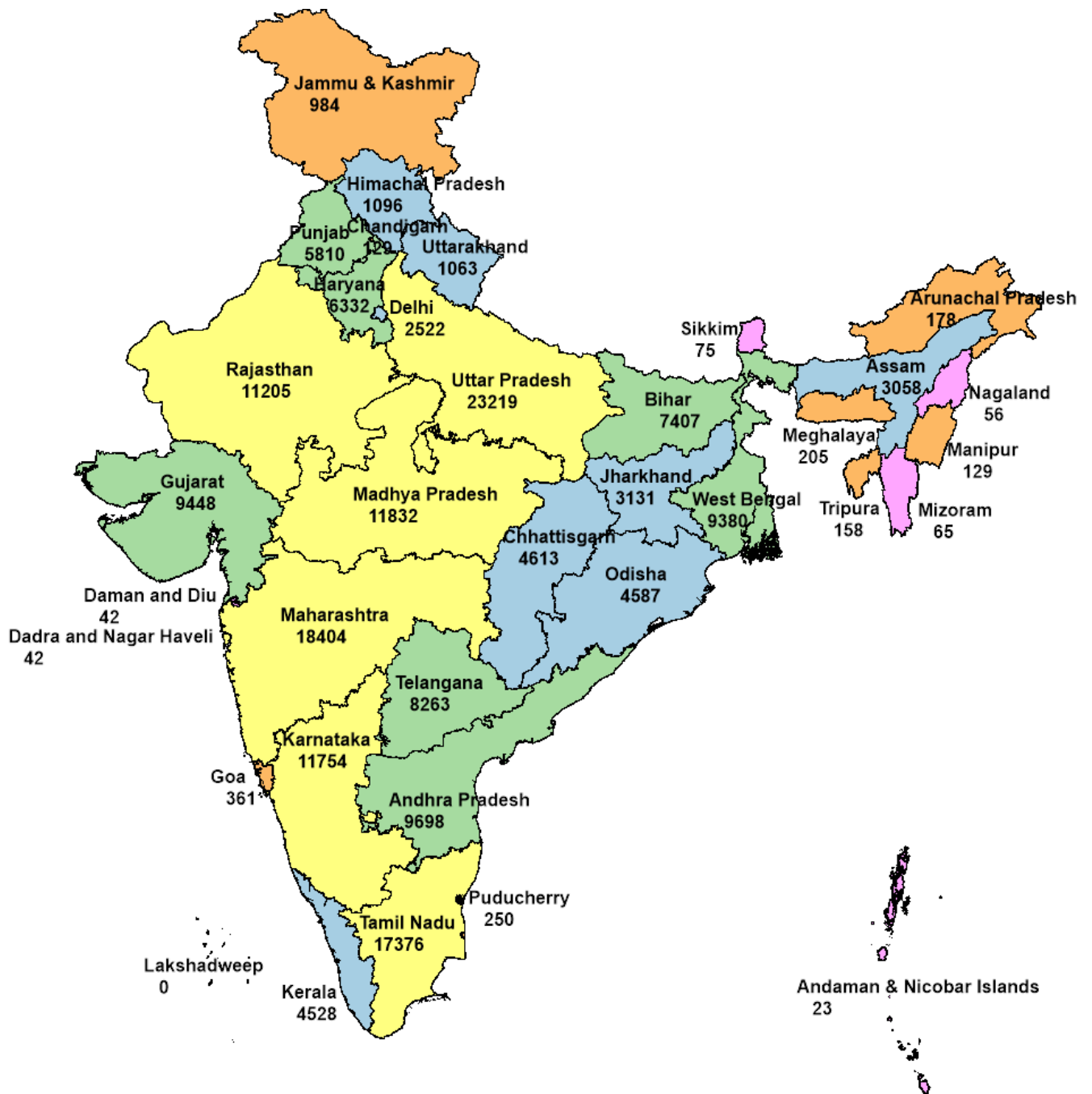


Traffic Accident Cases



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STATE/UT - WISE TRAFFIC ACCIDENT DEATHS DURING 2015



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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 9.7% (45,215 out of 4,96,762) of total traffic accidents during the year 2015. 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 15:00 hrs – 18:00 hrs and 09:00 hrs – 12:00 hrs, accounting for 16.1%(80,113 out of 4,96,762) and 15.8%(78,596 out of 4,96,762) of total traffic accidents respectively during the year 2015. State/UT- wise 'Traffic Accidents' by time of occurrence is presented in **Table-1A.6**.

Road Accidents

India has a road network of over 52,31,922 kilometres⁺ as on 31st March, 2013. Road transport is vital to India's economy as it contributes nearly 4.8%[#] share towards Gross Domestic Product(GDP) of India in 2013 - 14.

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 second in the series.

A total of 4,64,674 road accident cases were reported during 2015. Road accident cases in the country have increased by 3.1%(4,64,674 in 2015 from 4,50,898 in 2014) during 2015 compared to 2014 [**Table-1A.1**]. The fatalities in road accidents have increased by 5.1% (from 1,41,526 in 2014 to 1,48,707 in 2015) during 2015 over 2014. 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 1.0 in 2011 to 0.8 in 2015, as the number of vehicles in the country have increased by 28.6%(from 1,41,866 in 2011 to 1,82,445 in 2013(latest)) and the quantum of 'Road Accidents' has increased by 5.6% during the same period.

4,64,674 road accidents caused 1,48,707 deaths and injuries to 4,82,389 persons during 2015. Generally road accidents have caused more injuries than deaths, but in Punjab and Uttar Pradesh road accidents caused more deaths compared to persons injured. In Punjab, 6,702 road accidents caused 4,893 deaths and injuries to 4,414 persons and in Uttar Pradesh, 28,095 road accidents caused 18,407 deaths and injuries to 17,384 persons [**Table-1A.2**].

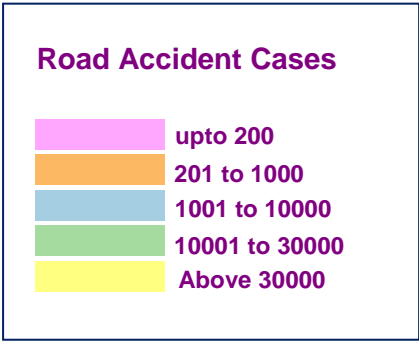
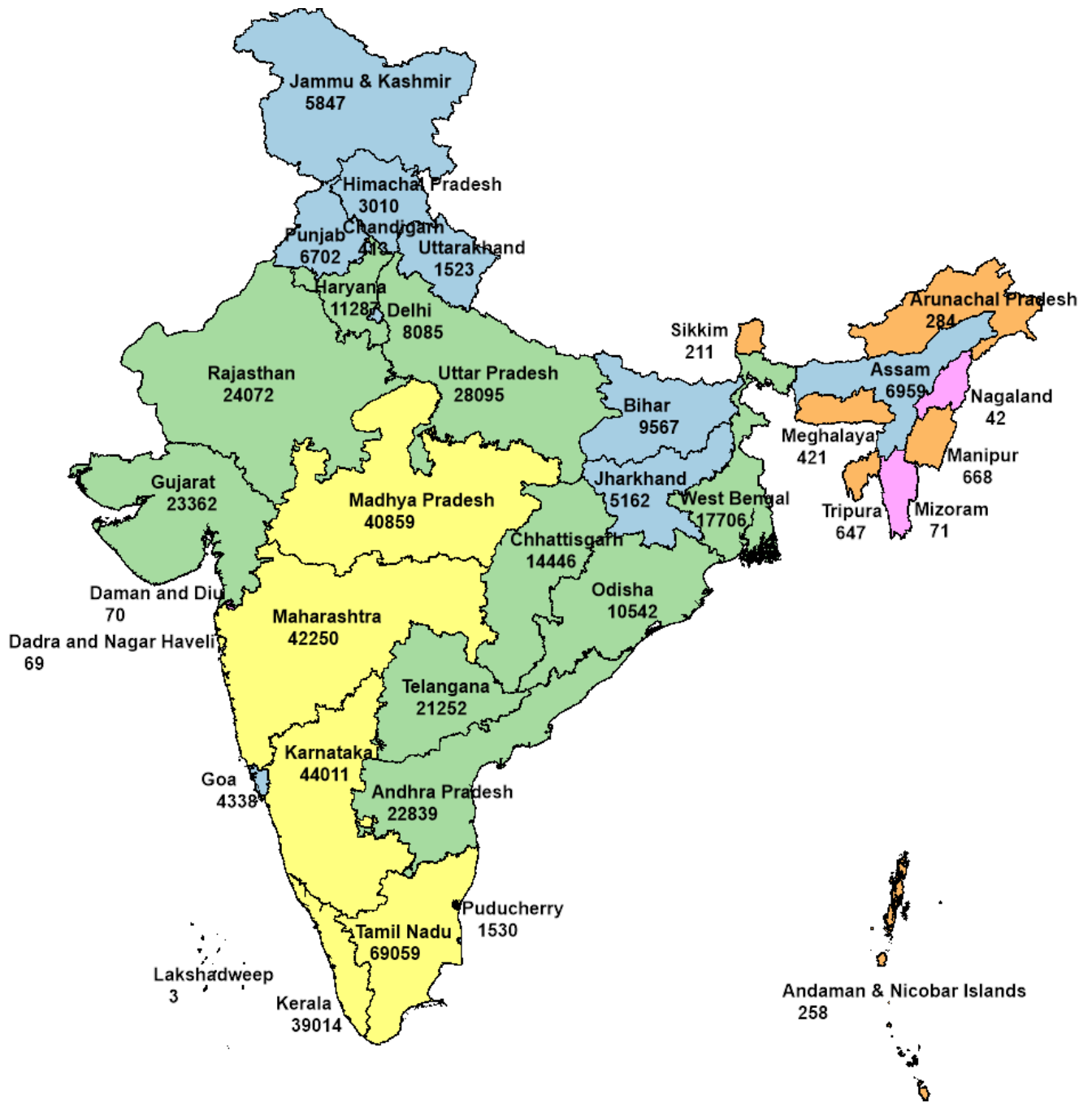
Table – 1A (B)
Growth in Number of Vehicles and Road Accidents in India (2011–2015)

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	2011	440.1	–	468.8	–	1,36,834	–	1,41,866	–	1.0
2	2012	440.0	–0.02%	469.9	0.2%	1,39,091	1.6%	1,59,491	12.4%	0.9
3	2013	443.0	0.7%	469.9	0.0%	1,37,423	–1.2%	1,82,445	14.4%	0.8
4	2014	450.9	1.8%	477.7	1.7%	1,41,526	3.0%	1,82,445*	–	0.8
5	2015	464.6	3.0%	482.3	1.0%	1,48,707	5.1%	1,82,445*	–	0.8

⁺ Source: Basic Road Statistics of India, 2012 – 13, TRW, MoRT&H, as per latest published data.

[#] Source: Road Transport Year Book, 2012 – 13, TRW, MoRT&H, as per latest published data. ** - figures of the year 2013 used due to non-availability of data

STATE/UT - WISE ROAD ACCIDENT CASES DURING 2015



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During 2015, two wheelers have accounted for maximum fatal road accidents (43,540 deaths), contributing 29.3% of total road accidental deaths, followed by trucks/lorries (28,910 deaths)(19.4%), cars (18,506 deaths) (12.4%) and buses (12,408 deaths)(8.3%) [Table-1A.3].

Majority of deaths due to two wheelers accidents were reported in Tamil Nadu (3,668 deaths) and Maharashtra (3,146 deaths), accounting for 13.5% and 11.5% of total deaths due to two wheeled vehicles respectively. Large number of deaths due to trucks/lorries accidents (5,720 out of 28,910) and car accidents (2,135 out of 18,506) were reported in Uttar Pradesh, accounting for 21.6% and 11.5% of total such accidents respectively. 18.7% (2,071 out of 12,408) and 14.6% (1,767 out of 12,408) of total fatal road accidents due to buses were reported in Tamil Nadu and Uttar Pradesh respectively. 17.7% (1,256 out of 7,088) of pedestrians' deaths in road accidents were reported in Maharashtra during 2015 [Table-1A.4].

The month-wise distribution of 'Road Accidents' shows that most of road accidents were reported in the month of May (42,375 cases), contributing 9.1% of total road accidents. Majority of accidents in this month (May) have been reported in Tamil Nadu, accounting for 14.1% of total accidents reported (5,944 out of 42,375 cases) in the month of May [Table-1A.5].

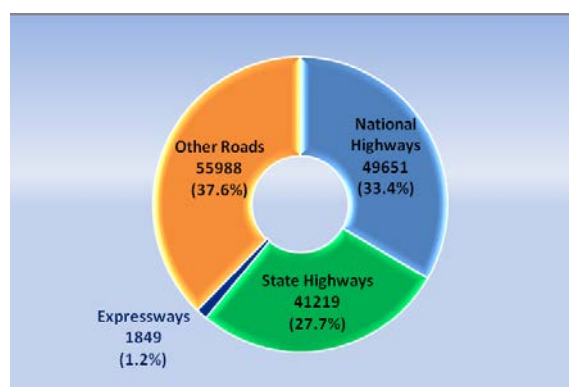
Most of road accidents (76,141 out of 4,64,674 cases) were reported during 15:00 hrs to 18:00 hrs (Day), accounting for 16.4% of total road accidents. During 15:00 hrs to 18:00 hrs (Day), majority of road accidents were reported in Kerala (8,537 cases), Karnataka (7,712 cases) and Tamil Nadu (7,215 cases). Time period '12:00 hrs to 15:00(Day)' and '09:00 hrs to 12:00 hrs(Day)' accounted for 15.9%(73,917 cases) and 15.8%(73,348 cases) of total road accidents during 2015 [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 1.51% of total road length⁺ (79,116 out of 52,31,922 Kms) accounted for highest road accidents, contributing 28.2% of total road accidents. State Highways having

the share of 3.24% (1,69,227 Kms) of total road length have reported 25.0% of road accidents in the country. However, a considerable number of road accidents were also reported on other roads, these accounted for 45.8% of total such accidents during 2015.

A total of 4,574 cases of road accidents were also reported on Expressways which caused injuries to 3,864 persons and deaths of 1,849 persons. The highest number of persons died in road accidents were reported on the National Highways accounting for 33.4% (49,651 out of 1,48,707) followed by State Highways (27.7%)(41,219 deaths). A total of 1,849 persons died due to road accidents on the Expressways during 2015.

Figure 1A.1
Accidental Deaths by Road Classification during 2015



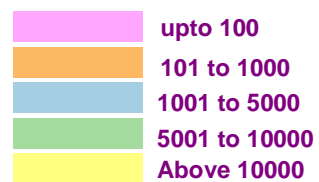
State/UT-wise patterns revealed that maximum fatalities in road accidents on the National Highways took place in Uttar Pradesh (13.3%) (6,624 out of 49,651 deaths) followed by Tamil Nadu (11.0%) (5,479 deaths), Karnataka (7.7%) (3,794 deaths), Maharashtra (7.2%) (3,577) and Andhra Pradesh (6.2%) (3,062 deaths) during 2015.

Maximum number of accidents on State Highways in the country occurred in Tamil Nadu (23,165 cases). Maximum fatalities in road accidents on State Highways were also reported in Tamil Nadu (5,689 out of 41,219 deaths) which accounted for 13.8% of total deaths due to road accidents on State Highways, followed by Maharashtra (9.8%) during 2015. Maximum fatalities on the Expressways was reported in Rajasthan contributing 19.5% (360 out 1,849) followed by Uttar Pradesh (16.3%), Tamil Nadu (11.8%), Maharashtra (10.7%) and West Bengal (8.0%) during 2015 [Table-1A.7]

STATE/UT - WISE ROAD ACCIDENT DEATHS DURING 2015



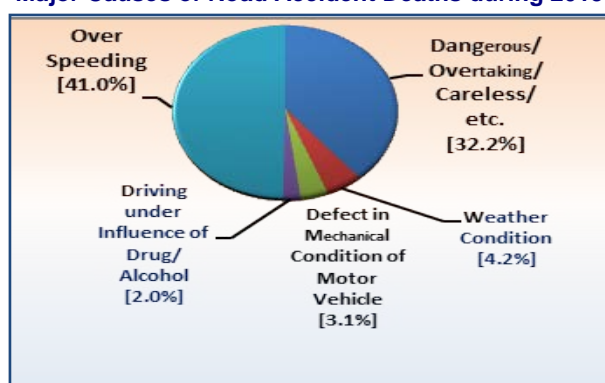
Road Accident Deaths



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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 43.7% of total accidents (2,02,882 out of 4,64,474 cases) which caused 60,969 deaths and injuries to 2,12,815 persons. Dangerous/careless driving or overtaking caused 1,46,059 accidents which resulted in 48,093 deaths and injuries to 1,51,231 persons during 2015. 3.7% (17,235 out of 4,64,674 cases) of such accidents were due to poor weather condition. Driving under influence of drug/alcohol contributed 1.5% of total such accidents which resulted in injuries to 6,295 persons and 2,988 deaths in the country.

Figure 1A.2
Major Causes of Road Accident Deaths during 2015



Cause - wise analysis of fatal road accidents revealed that 41.0%(60,969 out of 1,48,707 deaths) and 32.3% (48,093 out of 1,48,707 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 4.2% (6,191 deaths) and 3.1% (4,551 deaths) of total deaths due to road accidents respectively during 2015.

Large number of deaths in road accidents due to over- speeding were reported in Tamil Nadu (15.4%)(9,380 out of 60,969 deaths) followed by Maharashtra (12.5%)(7,634 out of 60,969 deaths). Dangerous/careless driving or overtaking caused maximum fatalities in Uttar Pradesh (8,109 out of 48,093) which accounted for 16.9% of total deaths followed by 8.9%(4,296) deaths in Maharashtra. Maximum fatalities due to driving under influence of drug/alcohol were reported in Jharkhand followed by Uttar Pradesh, Bihar and Telangana which accounted for 16.7%, 14.8%,

14.3% and 8.6% of total deaths in such road accidents in country respectively during 2015 [**Table-1A.9**].

A total of 262 accidental deaths were reported at un-manned railways crossing. 38.1% of such incidents were reported in Uttar Pradesh (100 out of 262 deaths) alone during 2015 [**Table-1A.9**].

Place of occurrence - wise patterns of road accidents reveal that 54.9% of total accidents have occurred in rural areas (2,54,878 out of 4,64,674 cases) and 45.1% in urban areas (2,09,796 out of 4,64,674 cases) during 2015. Both in rural as well as urban area most of the accidents were reported at places near residential area. 24.7% (63,054 out of 2,54,878 cases) accidents in rural area and 24.6%(51,607 out of 2,09,796 cases) in urban area have taken place near residential area. 10.7% of road accidents in urban area took place at pedestrian crossing (22,375 out of 2,09,796) during 2015. Besides, 5.8%(27,059 out of 4,64, 674 cases) of road accidents in the country have taken place near schools, college or other educational institutions during 2015 [**Table 1A.10**].

29 out of 36 States/UTs have reported more than 50% of road accidents in rural area whereas majority States/UTs have reported more deaths due to road accidents in urban areas compared to rural areas during 2015. Uttar Pradesh followed by Tamil Nadu have reported 11.3% and 8.1% of total deaths due to road accidents near schools or college or other educational institutes respectively. Uttar Pradesh also reported highest fatalities due to road accidents at places near to residential area accounting for 15.4% of total such deaths during 2015 [**Table-1A.11**].

Railway Accidents

A total of 29,419 cases of 'Railway Accidents' were reported, showing an increase of 3.7% during the year 2015 over 2014 (28,360 cases). 29,419 railways accidents caused injuries to 4,055 persons and 26,066 deaths during 2015 [**Table-1A.1 & 1A.2**].

Maximum railway accidents were reported in Maharashtra accounting for 26.5% (7,806 out of 29,419 cases) followed by Uttar Pradesh (15.1%)(4,431 cases). These two States have also reported highest fatalities in railways accidents, accounting for 18.1% (4,719 out of

26,066 deaths) and 17.2% (4,472 deaths) of total deaths in railways accidents respectively. 3,095 out of 4,055 persons injured in railways accidents were reported in Maharashtra alone during 2015 [Table 1A.2].

The month-wise distribution of 'Railway Accidents' shows that most of railway accidents were reported in the month of August (2,563 cases), contributing 8.7% of total railway accidents. Maharashtra (746 out of 2,563 cases) has reported maximum railways accidents in the month of August, accounting for 29.1% of total such accidents [Table-1A.5].

Most of railway accidents (4,962 out of 29,419) have taken place during 09:00 hrs to 12:00 hrs (Day), accounting for 16.9% of total railway accidents. 15.8%(4,668 cases) railways accidents were reported during '06:00 hrs to 09:00 hrs (Day)'. Maharashtra has reported maximum accidents during 06:00 hrs to 09:00 hrs (Day) and 09:00 hrs to 12:00 hrs (Night), accounting for 22.0% (1,031 cases) and 34.0% (1,077 cases) respectively [Table-1A.6].

State/UT - wise classification of railways 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 (72.5%)(21,339 out of 29,419). State of Maharashtra has reported the majority of such cases, accounting for 33.4% (7,127 out of 21,339 cases) of total cases of fall from train or collision of trains with people at track. A total of 18,259 persons died due to either fall from trains or collision of trains with people at tracks, accounting for 70.0% of total deaths in railway accidents (26,066 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 27,794 out of 29,419 cases of railways accidents were furnished under 'Other Cause' (fall of persons from trains or persons coming under trains come under this category). During 2015, a total of 859 cases of railways accidents occurred due to mechanical defects (like poor design, track faults, bridge/tunnel). Sabotage by extremist/terrorist/others caused 12, 10 and 8 railways accidents in Madhya Pradesh, Uttar Pradesh and Assam respectively. In Madhya Pradesh, a

total of 792 persons died in railways accidents due to mechanical defects (like poor design, track faults, bridge/tunnel). Sabotage by extremist/terrorist/others led to loss of 41 lives in railways accidents during 2015.

Maximum railway crossing accidents were reported in Haryana accounting for 48.3% (1,290 out of 2,669 cases) followed by Uttar Pradesh (13.4%) (358 cases) and Andhra Pradesh (10.0%) (268 cases). These States have also reported highest fatalities in railway crossing accidents, accounting for 48.5% (1,286 out of 2,650 deaths), 12.8% (340 deaths) and 10.1% (268 deaths) respectively during 2015 [Table-1A.2].

Traffic Accidents in Cities

A total of 80,660 traffic accidents were reported in 53 cities during 2015. 80,660 traffic accidents caused injuries to 70,831 persons and 19,150 deaths. The maximum fatalities in traffic accidents was reported in Delhi City (2,216 deaths) followed by Kanpur (1,031 deaths) and Jaipur (939 deaths) [Table-1A.2].

Road Accidents (78,500 cases) accounted for 97.3% of total traffic accidents in 53 mega cities during 2015. Chennai accounted for 9.3% (7,328 out of 78,500 cases) of total road accidents reported in 53 mega cities followed by Delhi City (9.1%) (7,148 cases) and Bengaluru (6.4%) (5,001 cases). However, the large number of fatal road accidents were reported in Delhi City (1,316 deaths) followed by Jaipur (939 deaths), accounting for 7.7% and 5.5% of total deaths due to road accidents in 53 mega cities respectively during 2015.

Cause-wise analysis of road accidents revealed that most of road accidents in 53 mega cities were due to dangerous/careless driving/over-taking which accounted for 35.9% (6,153 out of 17,059 deaths) of total deaths due to road accidents during 2015. Over-speeding also caused 39.6% of total deaths due to road accidents (6,774 out of 17,059 deaths). Driving under influence of drug/alcohol had caused 2.0% (348 out of 17,059 deaths) of fatalities in road accidents. Among 53 mega cities, most of fatal accidents due to drunken driving were reported in Chennai (93 out of 348 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 26.7% (4,548 out of 17,059 deaths) of deaths in road accidents in 53 mega cities, followed by 8.9% at pedestrian crossing (1,520 out of 17,059 deaths) and 7.3% (1,242 out of 17,059 deaths) near schools/college/other educational institutions. Out of 53 mega cities, Kolkata (192 deaths) followed by Faridabad (141 deaths) have reported maximum cases of road accidents at pedestrian crossing. As per road-wise

classification of road accidents, 16.9% of total road accidents in 53 mega cities were reported at the National Highways. 30.0% of fatalities in road accidents were reported at the National Highways during 2015.

A total of 1,923 railway accidents were reported in 53 mega cities where in Delhi City has reported maximum incidents by contributing 48.8% of total railway accidents during 2015.

Figure 1A.3
Trend of Road Accident Cases, Persons Injured and Persons Died during 2006–2015

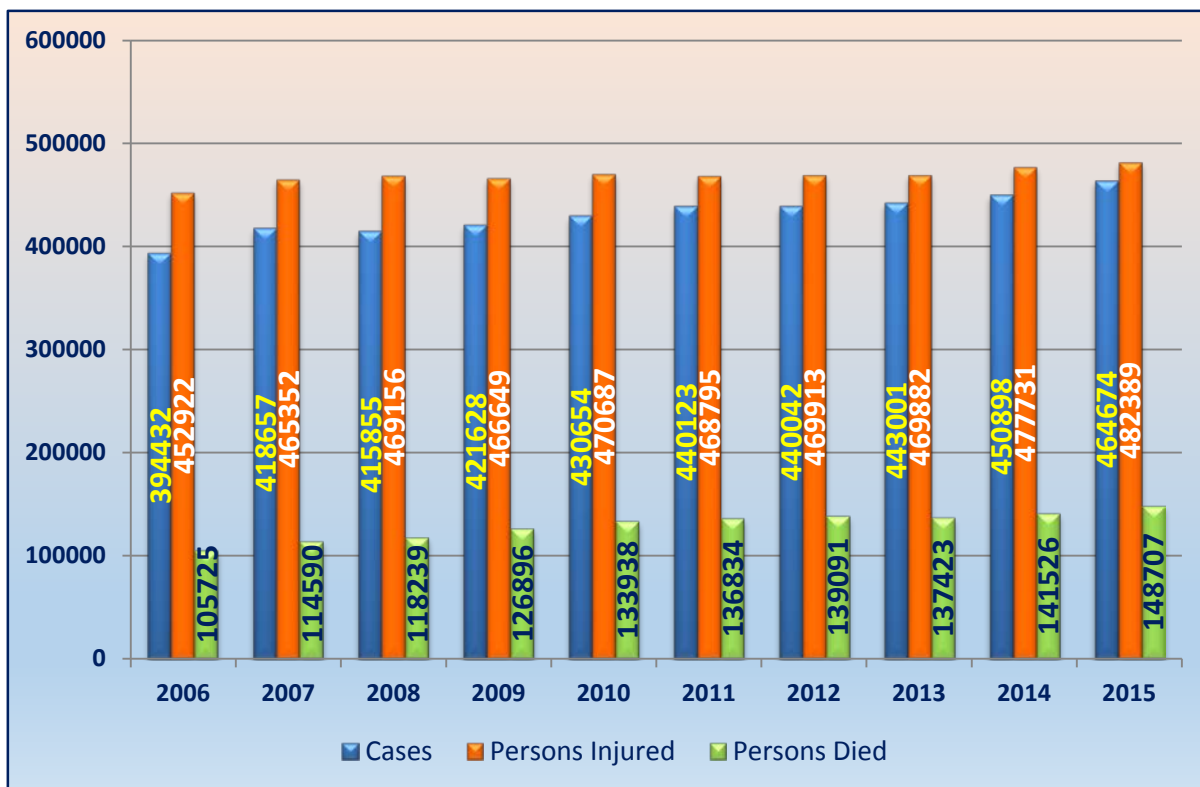


Figure 1A.4
Classification of Railway Accidents Deaths during 2015

