CHAPTER – 1A

TRAFFIC ACCIDENTS

Introduction

Indian transport systems play 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. Hence it is of paramount importance to understand the trends and patterns of traffic accidents. Considering this aspect, the NCRB has designed a detailed proforma on traffic accidents inter-alia road accidents.

Traffic Accidents comprising of (i) Road Accidents (ii) Railway Accidents and (iii) Railway Crossing Accidents were the major contributors of accidental deaths by Un-natural causes.

Traffic Accidents in the country have marginally increased by 1.3% during 2014 compared to 2013. Maximum increase in traffic accidents cases was reported in Madhya Pradesh (from 35,878 in 2013 to 41,747 in 2014).[Table-1A.1]

4,81,805 Traffic Accidents resulted in injuries to 4,81,739 persons and 1,69,107 deaths during 2014. State of Uttar Pradesh followed by Maharashtra and Tamil Nadu have reported maximum fatalities in traffic accidents in the country, these 3 States accounted for 12.2%, 11.0% and 10.1% of total deaths in traffic accidents during 2014. These 3 States together have accounted for 33.3% of total fatalities reported at all India level.

The proportional share of traffic accidents in total deaths due to un-natural causes has decreased from 45.0% in 2010 to 39.2% in 2014. However, a rising trend is seen in absolute number of deaths in ‘Traffic Accidents’ during the last five years 2010 - 2014. Table-1A(A).

A total of 4,81,805 traffic accidents comprising of 4,50,898 road accidents, 28,360 railway accidents and 2,547 railway crossing accidents were reported, these accidents caused 1,41,526, 25,006 and 2,575 deaths respectively during 2014.

Maximum ‘Traffic Accidents’ were reported in the month of May, accounting for 9.2% (44,106 out of 4,81,805) of total traffic accidents during the year 2014. The month-wise break-up of

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Year</th>
<th>Road Accidents</th>
<th>Railway Accidents</th>
<th>Railway Crossing Accidents</th>
<th>Total Traffic Accidents</th>
<th>Total Un-natural Accidents</th>
<th>Percentage Share of ‘Traffic Accident Deaths' in Un-natural Accidental Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2010</td>
<td>1,33,938</td>
<td>24,451</td>
<td>3,347</td>
<td>1,61,736</td>
<td>3,59,583</td>
<td>45.0</td>
</tr>
<tr>
<td>2</td>
<td>2011</td>
<td>1,36,834</td>
<td>25,872</td>
<td>2,366</td>
<td>1,65,072</td>
<td>3,67,194</td>
<td>45.0</td>
</tr>
<tr>
<td>3</td>
<td>2012</td>
<td>1,39,091</td>
<td>27,402</td>
<td>1,808</td>
<td>1,68,301</td>
<td>3,72,022</td>
<td>45.2</td>
</tr>
<tr>
<td>4</td>
<td>2013</td>
<td>1,37,423</td>
<td>27,765</td>
<td>1,318</td>
<td>1,66,506</td>
<td>3,77,758</td>
<td>44.1</td>
</tr>
<tr>
<td>5</td>
<td>2014</td>
<td>1,41,526</td>
<td>25,006</td>
<td>2,575</td>
<td>1,69,107</td>
<td>4,31,556</td>
<td>39.2</td>
</tr>
</tbody>
</table>
STATE/UT WISE TRAFFIC ACCIDENT CASES IN 2014

Traffic Accident Cases

- upto 200
- 201 to 1000
- 1001 to 10000
- 10001 to 30000
- above 30000
STATE/UT WISE TRAFFIC ACCIDENT DEATHS IN 2014

Traffic Accident Deaths
- upto 100
- 101 to 1000
- 1001 to 5000
- 5001 to 10000
- above 10000

Jammu & Kashmir: 1030
Himachal Pradesh: 1403
Punjab: 5644
Rajasthan: 10958
Uttarakhand: 562
Uttar Pradesh: 20653
Maharashtra: 18574
Karnataka: 10469
Andhra Pradesh: 9377
Tamil Nadu: 17023
Kerala: 4413
Goa: 332
Daman and Diu: 15
Dadra and Nagar Haveli: 59
Jharkhand: 2955
Bihar: 5911
West Bengal: 9292
Sikkim: 62
Nagaland: 32
Manipur: 167
Meghalaya: 171
Tripura: 188
Mizoram: 93
Assam: 3212
Arunachal Pradesh: 112
Andaman & Nicobar Islands: 23
Lakshadweep: 0
Delhi: 2497
Odisha: 4299
Chhattisgarh: 4649
Telangana: 7979
Karnataka: 7979
Puducherry: 207

Road Accidents

India has a road network of over 48,65,394 kilometres+ as on 1st March, 2012. Road transport is vital to India’s economy as it contributes nearly 4.8% share towards Gross Domestic Product(GDP) of India. Hence a detailed data on road accidents is of paramount importance in order to understand its impact on India economy.

For the first time, an effort has been made by the Bureau to capture a comprehensive data on road accidents using the revised proforma. In this edition of the report, data on causes of road accidents, road accidents by place of occurrence, road accidents by culpability, classification of road accidents, road accidents by time periods & months have been collected.

‘Road Accidents’ cases in the country have increased by 1.8% during 2014 (4,50,898 cases) compared to 2013 (4,43,001 cases) [Table-1A.1]. The fatalities in road accidents have increased by 2.9% during 2014 as compared to 2013. The Table -1A(A) can be referred to see the growing quantum 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 1.2 in 2010 to 0.9 in 2014, as the number of vehicles in the country has increased by 38.7% and the quantum of ‘Road Accidents’ has increased by 4.7% during the same period.

4,50,898 road accidents caused 1,41,526 deaths including deaths of 34,252 offending drivers/pedestrians during 2014. [Table-1A.3]

Table – 1A (B)
Growth in Number of Vehicles and Road Accidents in India (2010–2014)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Year</th>
<th>Road Accidents (in thousand)</th>
<th>% Variation over Previous Year</th>
<th>Persons Injured (in thousand)</th>
<th>% Variation over Previous Year</th>
<th>Persons Killed (in nos.)</th>
<th>% Variation Over Previous Year</th>
<th>No. Of Vehicles (in Thousand)</th>
<th>% Variation over previous Year</th>
<th>Rate of Deaths per thousand Vehicles (Col.7/ Col.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2010</td>
<td>430.6</td>
<td>2.1</td>
<td>470.6</td>
<td>0.9</td>
<td>1,33,938</td>
<td>5.5</td>
<td>1,14,953</td>
<td>28.3</td>
<td>1.2</td>
</tr>
<tr>
<td>2</td>
<td>2011</td>
<td>440.1</td>
<td>2.2</td>
<td>468.8</td>
<td>–0.4</td>
<td>1,36,834</td>
<td>2.2</td>
<td>1,14,953</td>
<td>–</td>
<td>1.2</td>
</tr>
<tr>
<td>3</td>
<td>2012</td>
<td>440.0</td>
<td>–0.02</td>
<td>469.9</td>
<td>0.2</td>
<td>1,39,091</td>
<td>1.6</td>
<td>1,41,867</td>
<td>23.4</td>
<td>1.0</td>
</tr>
<tr>
<td>4</td>
<td>2013</td>
<td>443.0</td>
<td>0.7</td>
<td>469.9</td>
<td>–</td>
<td>1,37,423</td>
<td>–1.2</td>
<td>1,59,490</td>
<td>11.0</td>
<td>0.9</td>
</tr>
<tr>
<td>5</td>
<td>2014</td>
<td>450.9</td>
<td>1.8</td>
<td>477.7</td>
<td>1.7</td>
<td>1,41,526</td>
<td>2.9</td>
<td>1,59,490</td>
<td>–</td>
<td>0.9</td>
</tr>
</tbody>
</table>

* Source: Basic Road Statistics of India, 2011 – 12, TRW, MoRT&H, as per latest published data.
The month-wise distribution of ‘Road Accidents’ shows that most of road accidents were reported in the month of May (41,404 cases), contributing 9.2% of total road accidents. Majority of accidents in this month (May) have been reported in Tamil Nadu, accounting for 13.8% of total accidents reported in the month of May. [Table-1A.5]

Most of road accidents (77,830 out of 4,50,898 cases) were reported during 15:00 hrs to 18:00 hrs (Day) accounting for 17.3% of total road accidents, time period ‘18:00 hrs to 21:00 hrs(Night)’ accounted for 16.9%. During 15:00 hrs to 18:00 hrs (Day) and 18:00 hrs to 21:00 hrs (Night), majority of road accidents were reported in Tamil Nadu accounting for 11,902 cases and 13,927 cases respectively. [Table-1A.6]

During 2014, two wheelers have accounted for maximum fatal road accidents, contributing 26.4% of total road accidental deaths, followed by trucks/lorries (20.1%), cars (12.1%) and buses (8.8%). 14.4% and 13.5% of deaths due to two wheel vehicles were reported in Tamil Nadu and Maharashtra respectively. 17.7% of deaths due to trucks/lorries and 15.5% of deaths due to accidents by cars were reported in Uttar Pradesh and Tamil Nadu respectively. Buses were responsible for 15.9% and 13.4% of fatal road accidents in Tamil Nadu and Uttar Pradesh respectively. Pedestrians’ deaths in road accidents were reported as 17.5% and 12.5% in Maharashtra and Kerala respectively.

Road wise classification of accidents is presented in Table - 1A.7. As per road classification of accidents, The National Highways which share only 1.58% of total road length+ (76,818 out of 48,65,394 Kms) accounted for highest road accidents, contributing 27.5% of total road accidents. State Highways having the share of 3.38% of total road length have reported 25.2% of road accidents in the country. However, a considerable number of road accidents were also reported on other roads, these accounted for 46.4% of total such accidents during 2014.

The highest number of fatal road accidents occurred on the National Highways accounting for 32.6% of fatal road accidents (46,110 out of 1,41,526 deaths) followed by State Highways (27.8%). A total of 1,802 fatal road accidents were reported at the Expressways.

State/UT wise patterns revealed that maximum fatal road accidents on the National Highways took place in Uttar Pradesh (11.9%) (5,503 out of 46,110 deaths) followed by Tamil Nadu (11.3%) (5,189 deaths), Maharashtra (8.4%) (3,852 deaths), Rajasthan (7.7%) (3,561 deaths), Karnataka (7.4%) (3,393 deaths) and Andhra Pradesh (6.1%) (2,828 deaths). Tamil Nadu accounted for 17.5% of injured persons in road accidents on the National Highways during 2014.

Maximum accidents on State Highways in the country occurred in Tamil Nadu(21,441 cases). Maximum fatal road accidents on State Highways were also reported in Tamil Nadu (5,090 out of 39,325 deaths) which accounted for 12.9% total fatal road accidents on State Highways, followed by Maharashtra (11.1%) during 2014.

Maximum fatalities at Expressways was reported in Telangana (279 out of 1,802 deaths) contributing 15.5% of total such fatal road accidents at Expressways followed by Haryana (13.4%), Uttar Pradesh (12.9%), Rajasthan (12.3%) and West Bengal (11.4%) during 2014. [Table- 1A.7]

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*+ Source: Basic Road Statistics of India, 2011 – 12, TRW, MoRT&H, as per latest published data.
Cause wise distribution of road 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 36.8% of total accidents which caused 48,654 deaths and injuries to 1,81,582 persons. Dangerous/careless driving or overtaking caused 1,37,808 road accidents which resulted in 42,127 deaths and injuries to 1,38,533 persons during 2014. 3.2% of road accidents were due to poor weather condition. Driving under influence of drug/alcohol contributed 1.6% of total road accidents which rendered 7,398 persons injured and 2,591 deaths in the country.

Figure 1A.2
Major Causes of Road Accident Deaths during 2014

Cause wise analysis of fatal road accidents revealed that 47.9% and 41.5% fatalities in road accidents were due to over-speeding. Poor weather conditions and mechanical defects in motor vehicles caused 5.3% and 2.8% respectively of fatal road accidents during 2014.

14.3% of fatal road accidents due to over-speeding were reported in Maharashtra followed by Tamil Nadu (13.4%). 17.5% of fatal accidents due to dangerous/careless driving or overtaking were reported in Uttar Pradesh followed by Maharashtra (10.2%). Maximum incidents of fatal road accidents due to driving under influence of drug/alcohol were reported in Andhra Pradesh, Telangana, Bihar and Uttar Pradesh, they accounted for 14.9%, 14.0%, 13.5% and 12.6% respectively of total fatal road accidents in country during 2014[Table-1A.9].

A total of 836 accidental deaths were reported at un-manned railways crossing. 78.2% of such incidents were reported in Assam (654 out of 836 deaths) alone during 2014[Table-1A.9].

On analysing road accidents by place of occurrence, it was found that 54.7% and 45.3% of road accidents were reported in rural areas (2,46,768 cases) and urban areas (2,04,130 cases) respectively during 2014. Both in rural as well as urban area most of the accidents were reported at places near to residential area, 16.5% and 16.4% of road accidents in rural area and in urban area were reported at places near to residential area. 7.5% of road accidents in urban area took place at pedestrian crossing during 2014. Besides, 5.3% of road accidents in the country were reported at places near to schools, college or educational institutions (23,723 out of 4,50,898 cases) during 2014[Table 1A.10].

27 out of 36 States/UTs have reported more than 50% of road accidents in rural area whereas all 36 States/UTs have reported more than 2/3rd of fatal accidents in urban areas during 2014. Tamil Nadu followed by Uttar Pradesh have reported 14.4% and 12.7% respectively of fatal road accidents at the places near to schools or college or other educational institutes. Both States have also reported highest incidence of fatal accidents at places near to residential area accounting for 11.8% and 12.8% respectively of total such accidents during 2014 Table 1A.11].

Railway Accidents

‘Other Railways Accidents’ published in previous edition is re-named in this edition of report as ‘Railways Accidents’.

A total of 28,360 cases of 'Railway Accidents' were reported, showing a decrease of 9.2% during the year 2014 over 2013 (31,236 cases). 28,360 railways accidents rendered 3,882 persons injured and 25,006 deaths during 2014. [Table–1A.1 & 1A.2]
Maximum railway accidents were reported in Maharashtra accounting for 28.1% followed by Uttar Pradesh (14.1%). These States have also reported highest fatalities in railways accidents, 20.1%(5,024 out of 25,006 deaths) and 16.0%(3,999 deaths) respectively. 3,208 out of 3,882 persons injured in railways accidents were reported in Maharashtra alone [Table 1A.2].

The month-wise distribution of ‘Railway Accidents’ shows that most of railway accidents were reported in the month of June, contributing 9.4% of total railway accidents. Maharashtra (741 out of 2,653 cases) has reported maximum railways accidents in the month of June, accounting for 27.9% of total such accidents. [Table-1A.5]

Most of railway accidents (4,966 out of 28,360) were reported during 06:00 hrs to 09:00 hrs (Day), accounting for 17.5% of total railway accidents. During ‘09:00 hrs to 12:00 hrs (Day)’, 16.9% railways accidents were reported. 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 23.9% (1,187 cases) and 28.7% (13,981 cases) respectively. [Table-1A.6]

State/UT wise classification of railways accidents is presented in Table-1A.12. The analyses of classification of railway accidents revealed that majority of railway accidents (61.6%) were due to fall from trains or collision with people at track (17,480 out of 28,360). State of Maharashtra has reported the maximum such cases, accounting for 42.5% of total cases of fall from train or collision of trains with people at track. A total of 14,391 persons died due to either fall from trains or collision of trains with people at tracks, accounting for 57.6% of total deaths in railway accidents (25,006 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 27,806 out of 28,360 cases of railways accidents were furnished under ‘Other Cause’, people fall from trains or people coming under trains come under this category. During 2014, a total of 469 cases of railways accidents occurred due to mechanical defects (like poor design, track faults, bridge/tunnel). Sabotage by Extremist/Terrorist/others caused 13 and 5 railways accidents in Madhya Pradesh and Uttar Pradesh respectively. In Andhra Pradesh, a total of 385 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 18 lives in railways accidents during 2014. 16 lives were lost in railways accidents due to fault of drivers.

Maximum railway crossing accidents were reported in Telangana accounting for 41.7% followed by Bihar (18.9%) and Uttar Pradesh (14.1%). These States have also reported highest fatalities in railways accidents, 41.6%(1,070 out of 2,575 deaths), 18.8% (485 deaths) and 14.4% (370 deaths) respectively.

**Traffic Accidents in Cities**

A total of 81,874 traffic accidents were reported in 53 cities during 2014. 81,874 traffic accidents caused injuries to 72,523 persons and 17,416 deaths. The maximum fatalities in traffic accidents was reported in Delhi City (2,199 deaths) followed by Chennai (1,046 deaths) and Jaipur (844 deaths) [Table-1A.2].

Road Accidents (79,801 cases) accounted for 97.5% of total traffic accidents in 53 mega cities during 2014. Chennai accounted for 11.9% of total road accidents reported in 53 mega cities followed by Delhi City (9.0%) and Bengaluru (6.3%). However, the highest number of fatal road accidents was reported in Delhi City followed by Chennai, accounting for 8.6% and 6.8% respectively of total fatal road accidents in 53 mega cities.

Cause-wise analysis of road accidents revealed that most of road accidents in 53 mega cities were due to either dangerous/careless driving or over-taking, these accounting for 39.0% (6,050 out of 15,420 deaths) of total fatal road accidents during 2014. Over-speeding also caused 30.1% of fatal road accidents. Driving under influence of drug/alcohol had caused 3.2% of fatalities in road accidents. Among 53 mega cities, most of fatal accidents due to drunken driving were reported in Vijayawada (335 out of 498 deaths) [Table-1A.9].

On analysing road accidents by place of occurrence, it was found that most of fatal road accidents were reported at a place near to

Note: Figures of traffic accidents in cities have changed after rectification in Bhopal city data, as suggested by Bhopal city.
residential area, contributing 15.9% of road accidents in 53 mega cities, followed by pedestrian crossing (10.3%) and near schools/college/other educational institutions (5.4%). Out of 53 mega cities, Kolkata (214 deaths) followed by Chennai (206 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. 30.3% of fatal road accidents were reported at the National Highways during 2014.

A total of 1,876 railway accidents were reported in 53 mega cities where in Delhi City has reported maximum incidents by contributing 48.7% of total railway accidents. 405 out of 1,876 cases railway accidents were reported under ‘fall from train or coming under train’ in 53 mega cities during 2014.

Figure 1A.3
Trend of Road Accident Cases, Persons Injured and Persons Died during 2005–2014

Figure 1A.4
Classification of Railway Accidents during 2014