ROAD ACCIDENTS IN INDIA
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Road Accidents in India

1. Introduction

1.1 Expansion in road network, motorization and urbanization in the country has been accompanied by a rise in road accidents leading to road traffic injuries (RTIs) and fatalities as a major public health concern. Today road traffic injuries are one of the leading causes of deaths, disabilities and hospitalizations with severe socioeconomic costs across the world.

1.2. Studies of the relationship between gross domestic product (GDP) per capita, growth of motor vehicles and road fatalities, have shown that fatality rates increase as GDP increases at relatively low levels of GDP per capita, but then start to decline with continued GDP growth. The peak position on this inverted U-shaped curve is not, however, immutable. The challenge now is to bring about a shift in the relationship between economic growth and road fatalities, so that developing countries benefit from a much earlier improvement than traditional models predict based on the experience of high-income countries (Make Roads Safe, Commission for Global Road Safety; www.makeroadssafe.org).

2. Cost of Road Accidents

2.1 Accidents carry high economic and social costs, which are not easy to ascertain. The cost of road related injuries and accidents can be assessed in terms of (a) medical costs (b) other costs related to administrative, legal and police expenditure (c) collateral damage in terms of damage to property and motor vehicle and (d) loss due to income foregone arising out of absence from work or impairment/disability or untimely death. Besides accident survivors often live poor quality of life and have to live with pain and suffering which are difficult to estimate. In developing countries with very little asset ownership and lack of credible social safety net, accidents adversely impact the welfare of dependents of accident victims. Hence it is imperative to assess the magnitude and dimensions of road accidents so as to assist in formulating road safety policies. Box No. 1: Road Accident Costing provides in nutshell various approaches used by researchers and road safety organizations in the world in estimating the costs related to road accidents

2.2 In economic terms, the cost of road crash injuries is estimated at roughly 1 percent of gross national product (GNP) in low-income countries, 1.5 percent in middle-income countries and 2 percent in high-income countries. The direct economic costs of global road crashes have been estimated at US $ 518 Billion, with the costs in low income countries estimated at US $ 65 Billion (World Report on Road Traffic Injury Prevention, page 5 WHO, 2004). These estimates take account only of the direct economic costs – mainly lost productivity – rather than the full social costs often recognized by industrialized countries. For India the socio-economic cost of road accidents in 1999-2000 was estimated at 3 % of GDP (Tenth Five Year Plan Vol II page 963).

3. Trends in accidents, injuries, fatalities, motor vehicles & road network

3.1 Occurrence of accident is an outcome of interplay of a number of factors, which among others include length of road network, vehicle population, human population and adherence/enforcement of road safety regulations etc. Higher exposure to road accident risk may be mitigated by behavioral standards (adherence to road safety regulations) and policy intervention (enforcement).

Long Term Trends

3.2 The Compound annual growth rate (CAGR) in number of accidents, injuries, fatalities and motor vehicles (registered) have moderated during 1990s (1990-2000) after a spurt during the 1980s (1980 to 1990). Moderation in the growth of accidents, fatalities and injuries during 1990s has taken place in the backdrop of lower growth in the number of registered vehicles and step up in the growth of road network.However; post-2000 (up to 2008) growth rate of fatalities has accelerated vis-à-vis the preceding decade (1990-2000).

Table : 1 - Growth in Select Accident Related Parameters: Compound Annual Growth Rate (CAGR) in per cent

Period	Total number				In Kilometre
	Accidents	Injuries	Fatalities	Registered vehicles	Road Length
1980/1970	3.0	4.5	5.2	12.4	2.3
1990/1980	6.3	8.4	8.5	15.5	2.9
2000/1990	3.3	5.0	3.8	9.8	5.3
2008/2000	2.7	3.4	5.4	10.6*	2.2@

Note:*- refers to CAGR period 2006/2000; @ refers to 2004/2000

Between 1970 and 2008 the number of accidents quadrupled with more than 7 fold increase in injuries and more than 8 fold increase in fatalities in the backdrop of about 64 fold

increase in the number registered motor vehicles and three fold increase in road network (Annexure-I).

Recent Trends in Number of Accidents, Injuries and Fatalities

- During the calendar year 2008, number of accidents reported at 4,84,704 was higher by 1.1 per cent compared with 4,79,216 accidents reported in the year 2007.

- In comparison, the number of persons injured and persons killed as a result of road accidents at 5,23,193 and 1,19,860 respectively were higher by 1.9 % and 4.7 % respectively in 2008 compared with the preceding year.

- The total number of road accidents, injuries and deaths increased at CAGR of 2.7%, 3.4% and 5.4 % respectively between the years 2000 and 2008.

Profile of road accidents

3.3 The total number of accidents reported by all the States/ Union Territories (UTs) in the year 2008 were 4,84,704 of which 1,06,591 or 22.0% of total accidents were fatal; the number of persons killed in the accidents were 1,19,860 (i.e. an average of one fatality per 4.0 accidents) and the number of persons injured at 5,23,193 exceeded total number of accidents (4,84,704) in 2008. The proportion of fatal accidents in the total road accidents has consistently increased since 2001 as reflected in Table -2. The severity of road accidents measured in terms of persons killed per 100 accidents is observed to have increased from less than 20 in 2001 to 24.7 in 2008.

Table 2: Number of Accidents and Number of Persons Involved : 2001 to 2008

Year	Number of Accidents		Number of Persons		Accident Severity*
	Total	Fatal	Killed	Injured	
2001	405637	71219 (17.6)	80888	405216	19.9
2002	407497	73650 (18.1)	84674	408711	20.8
2003	406726	73589 (18.1)	85998	435122	21.1
2004	429910	79357 (18.5)	92618	464521	21.5
2005	439255	83491(19.0)	94968	465282	21.6
2006	460920	93917(20.4)	105749	496481	22.9
2007	479216	101161(21.1)	114444	513340	23.8
2008(P)	484704	106591(22.0)	119860	523193	24.7

(P): Provisional; Source: Information supplied by States/UTs. Figures within parenthesis indicate share of fatal accidents (i.e. involving death) to total accidents. * Accident Severity : No. of Persons Killed per 100 Accidents

Box: 1-Methods for Road Accident Costing

Several different methods exist for costing road accidents. Accident costing highlights the socio-economic burden of road accidents. Developing countries face many challenges and have many resource needs. Placing a value on each of the cost components may not be straightforward, as this depends on not only the availability of data but also how the estimates are derived. The costs can be estimated in several ways. Hills and Jones-Lee Hills and Jones [Hills,P.J., & M.W.Jones The Role of Safety in Highway Investment Appraisal for Developing Countries; Road Crash Analysis & Prevention 15(5):355-369) (1983)] and Jacobs [Jacobs,G.D.(1995) Costing Road Crashes in Developing Countries, Overseas Road Note 10, Crowthorne, Berkshire, Transport Research Laboratory} discussed six methods for evaluating the cost of fatal road accidents. These methods are gross output, net output, life insurance, court award, implicit public sector valuation, and willingness to pay.

Gross output or human capital method is based on the assessment of economic consequences, usually supplemented by a notional sum to reflect the pain, grief, and suffering of victims and their family members.

Net output method deducts the future consumption of individuals killed in road accidents and reflects a more conservative economic cost to society.

Life insurance method measures the valuation of risk associated with road use and is determined by the premiums that the driver population is willing to pay.

Court award method is based on the actual compensation settlements awarded, which may be influenced by the degree of negligence found.

Implicit public sector valuation method is a set of implicit values that are used to value human lives.

Willingness –to-pay method estimates the amount of money people affected would pay to avoid a road accident.

Considerable overlaps exist in the different methods, but the derived values are substantially different. Based on the objective of reducing road accidents, articulated in the form of either a call to maximize national output or social welfare, two methods, the gross output (or human capital) method and willingness-to-pay method, are most appropriate. The approaches adopted in these two methods are different. The first adopts an *ex post* approach that estimates the true costs based on historical data of costs incurred after a road accident. The second adopts an *ex ante* approach that attempts to estimate the true costs by considering what a person would do to avoid being involved in a road accident [Babtie Ross Silcock and Transport Research Laboratory 2003 Guidelines for Estimating the cost of Road Crashes in Developing Countries, Final Report, Department for International Development Project].

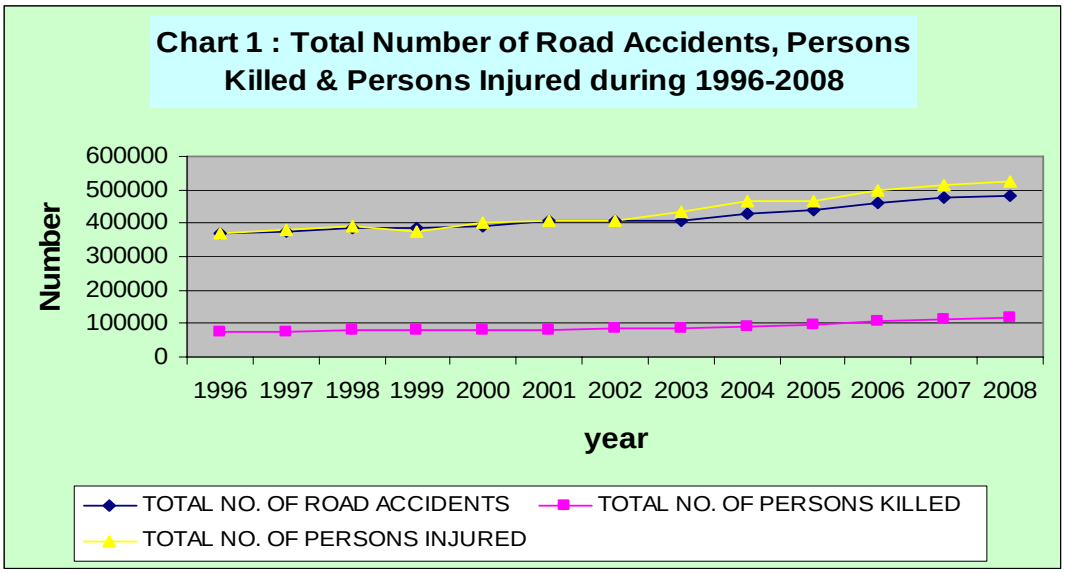
Box: 1-Methods for Road Accident Costing …..contd.

Although a few of the more developed countries have moved toward willingness-to-pay approaches, the human capital method is very common in may countries where extensive surveys to obtain perceived risks of different groups of individuals are difficult or impossible to conduct. One appealing aspect in using the human capital method is that the cost estimates derived are necessarily conservative estimates. Further, where road accident databases may not be well integrated, which means that cost estimates cannot be made with a high degree of precision, the human capital method will suffice. This is the method recommended by the Asian Development Bank for use in the Asian Development Bank-Association of Southeast Asian Nations regional project and has been used in this report.

The various methods of costing are built on very different premises and thus result in vastly different cost figures. The choice of method depends on the purpose of the costing exercise. In developing a suitable methodology to estimate road accident costs for maximizing national output as well as social benefits, Jacobs (1995) evaluated these methods and proposed that only the gross output and the willingness-to-pay methods are most appropriate. Further, the willingness-to-pay method was considered the better approach for conventional cost-benefit analyses and the most efficient way of allocating scarce financial resources.

By identifying the total impact of road accidents, road accident costing reveals the true extent of the problem in both the human casualty toll and also in economic terms. Once the total cost of road accident losses is known, an optimal safety budget can be determined and adequate resources can start to be justified for road safety.

Write up Based on ADB-ASEAN Regional Road Safety Programme: Accident Costing Report: The Cost of Road Accidents in Malaysia; Road Safety Guidelines for the Asian and Pacific Region; Section 4.14: Road Accident Costing, Asian Development Bank; Road Safety Management Information Note 3:Funding Global Road Safety Partnership



4. Normalized Indicators of Road Accidents, Injuries & Fatalities: All India Average

4.1 To get an appropriate measure of incidence of accidents, normalized/standardized accident rates for India have been worked out in terms of number of accidents (a) per lakh persons, (b) per ten thousand motor vehicles and (c) per ten thousand kilometers of the road length. Some of the broad trends at the all-India level are summarized below.

a. Number of accidents per lakh population indicate a rise from 21.2 in 1970 to 22.8 in 1980 followed by a sharp increase to 33.8 in 1990 . Between 1995 and 2005 , the figures fluctuated in the range of 38 to 40 ; increasing to above 42 in recent years(2007 and 2008) ;Between 1970 and 2008, there had been an increase of about 100% [Chart 2(a)];

b. A significant decline in the number of accidents per ten thousand motor vehicles is discernible from 814 in 1970, 339 in 1980, 148 in 1990, 80 in 2000 and further to 51 in 2006 i.e. decline of almost 94 % since 1970. [Chart 2(b)] ;

c. The trend in the number of accidents per ten thousand kilometers of the road length shows that the number of accidents have increased over the last few decades, from

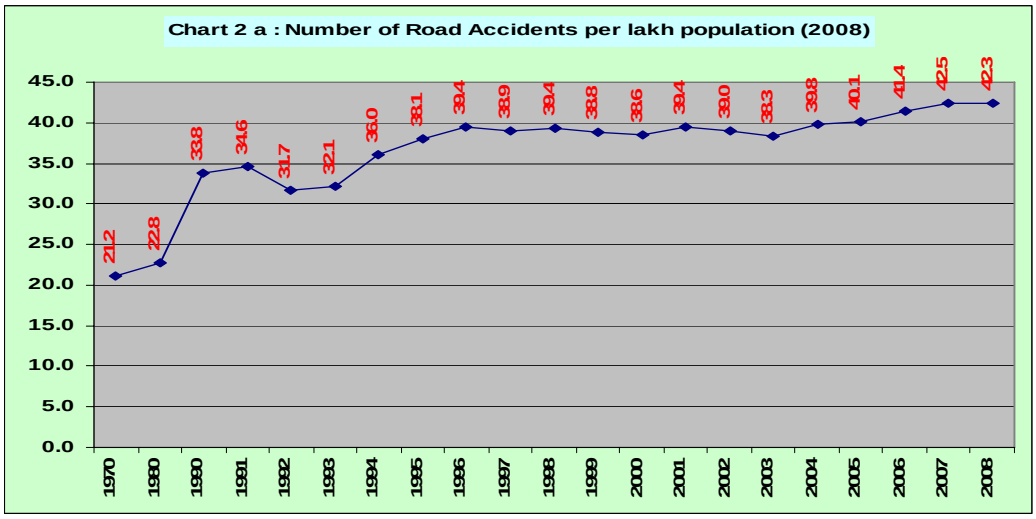
960 in 1970 to 1027 in 1980; peaked to 1424 in 1990; but declined thereafter with a fluctuating trend to 1187 in the year 2004 i.e an increase of 24% between 1970 and 2004 [Chart 2(c)].

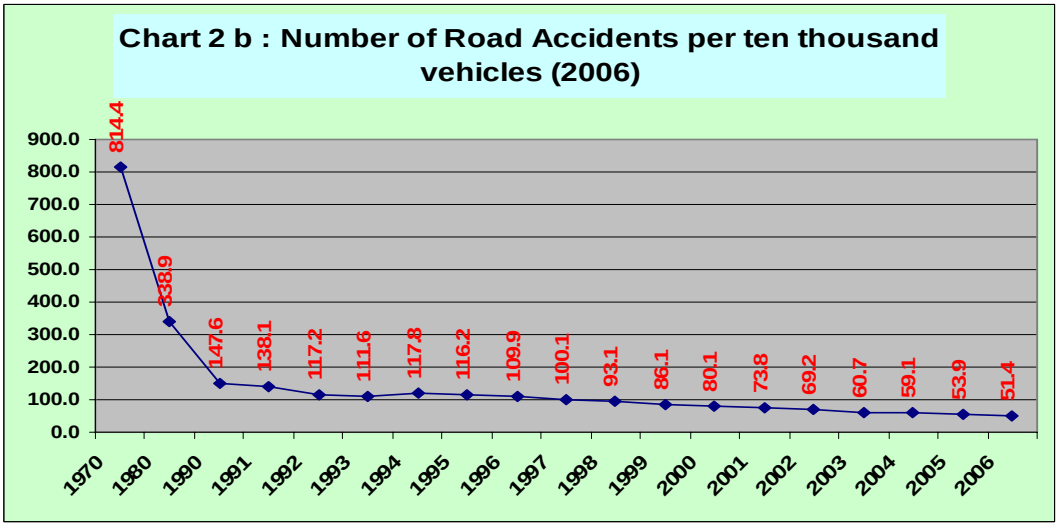
d. The number of persons injured per lakh of population indicates a more than three fold increase from 13 in 1970 to 45.7 in 2008 [Chart 3(a)]. Similarly, persons killed per lakh of population indicate nearly four fold jump from 2.7 in 1970 to 10.5 in 2008 [Chart 4(a)] Exposure of population to road accidents leading to deaths and injuries largely depends on the amount of travel undertaken, defined as the number of trips, the distance travelled, or time in the road environment, number of motor vehicles and the amount of motorized traffic, etc. These factors are associated with development and income levels. In high income countries, risk of road accidents arising out of these factors have been reduced through effective road safety engineering, traffic management, enforcement of traffic laws and the severity of penalties for infringement.

e. As regards number of persons injured and killed per 10,000 vehicles the decline has been dramatic. To some extent decline in this parameter has been brought about by improvements in vehicle crashworthiness and occupant protection. The number of persons injured per 10,000 vehicles has plummeted from 500 in 1970 to about 55 in 2006 [Chart 3(b)]. It is noteworthy that this parameter has consistently declined since 1997 despite sustained high growth in vehicle population. Similarly, the number of persons killed per 10,000 vehicles in the country has also fallen from about 104 in 1970 to less than 12 in 2006. [Chart 4(b)]. Injuries and deaths per 10,000 motor vehicles as a parameter has a limitation as it does not capture road related accidents and deaths connected with non-motorized forms of transport which are significant in rural areas.

f. The number of persons injured and killed per ten thousand km of road length has more than doubled since 1970. Modern road systems are largely designed for the motor vehicles exposing vulnerable road users to greater risk of accidents. In developing countries, lack of foot-paths, cycle tracks, traffic calming measures to reduce speed where non motorized mode of transport blend with motorized traffic, increases the risk of accidents and its severity. These factors have contributed towards

increase in road related accidents, injuries and deaths in relation to rise in terms of road length. High-income countries have made progress in providing facilities for pedestrians and cyclists and speed reduction schemes thereby weakening the nexus between road accidents, injuries and deaths with expansion in road network. The numbers of persons injured per ten thousand km of road length have risen from 590 in 1970 to 1283 in 2004 [Chart 3 (c)]; similarly persons killed per ten thousand km of road length more than doubled from 122 in 1970 to 256 in 2004 [Chart 4(c)]. However, both these parameters have shown ups and downs over the last decade.





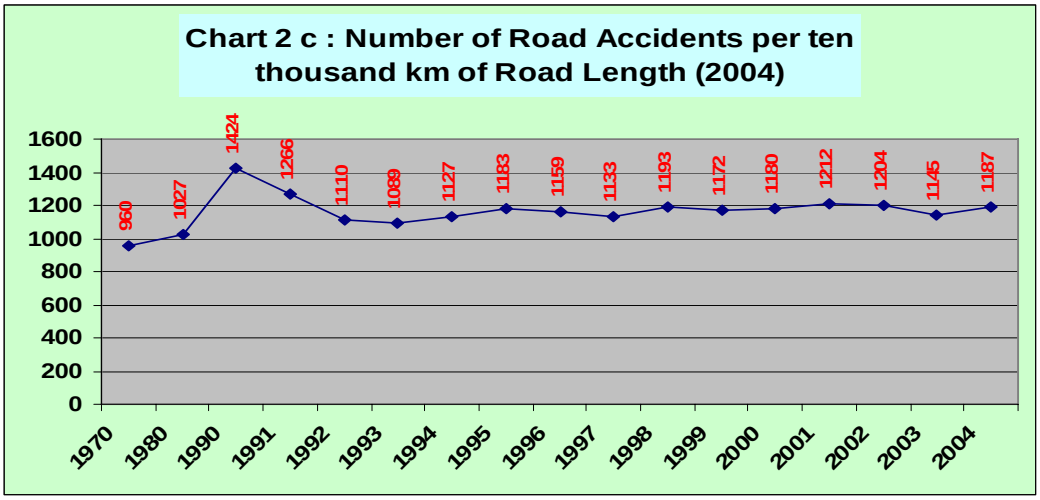


Chart 2 c : Number of Road Accidents per ten thousand km of Road Length (2004)
1600
1400
1200
1000
800
600
400
200
0
960
1027
1424
1266
1110
1089
1127
1183
1159
1133
1193
1172
1180
1212
1204
1145
1187
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

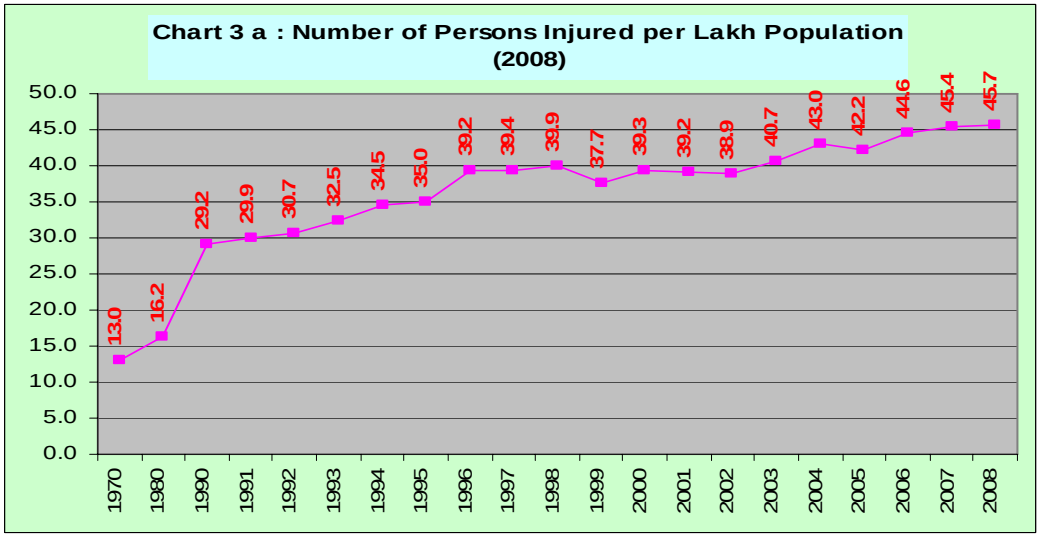


Chart 3 a : Number of Persons Injured per Lakh Population (2008)
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
13.0
16.2
29.2
29.9
30.7
32.5
34.5
35.0
39.2
39.4
39.9
37.7
39.3
39.2
38.9
40.7
43.0
42.2
44.6
45.4
45.7
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

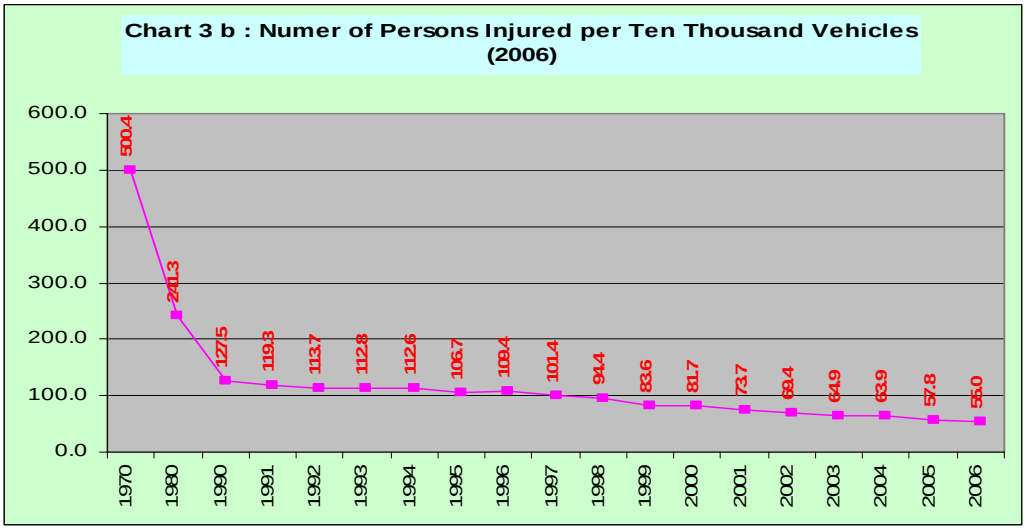


Chart 3 b : Numer of Persons Injured per Ten Thousand Vehicles (2006)
600.0
500.0
400.0
300.0
200.0
100.0
0.0
500.4
241.3
127.5
119.3
113.7
112.8
112.6
106.7
103.4
101.4
94.4
83.6
81.7
73.7
69.4
64.9
63.9
57.8
55.0
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006

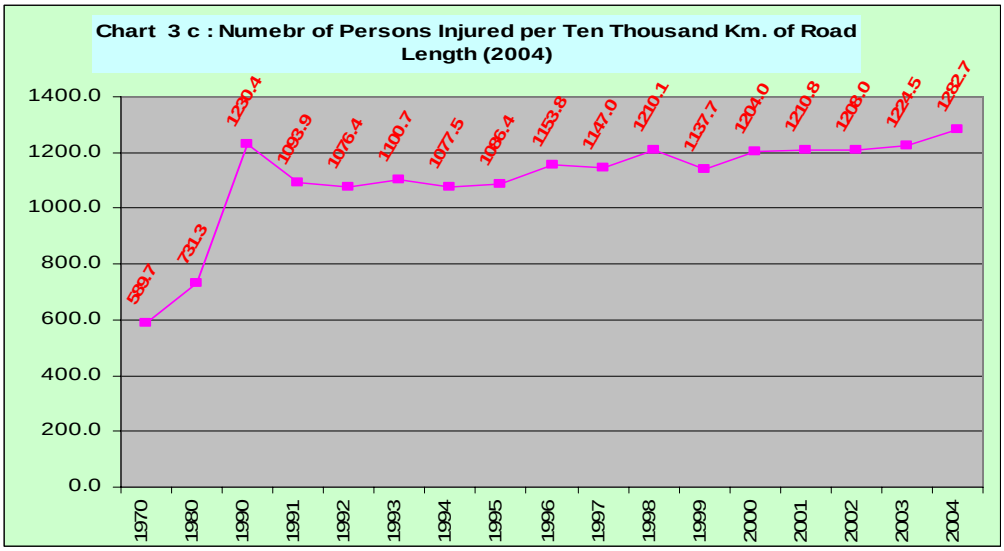


Chart 3 c : Numebr of Persons Injured per Ten Thousand Km. of Road Length (2004)
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
589.7
731.3
1230.4
1093.9
1076.4
1100.7
1077.5
1086.4
1153.8
1147.0
1210.1
1137.7
1204.0
1210.8
1208.0
1224.5
1282.7
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

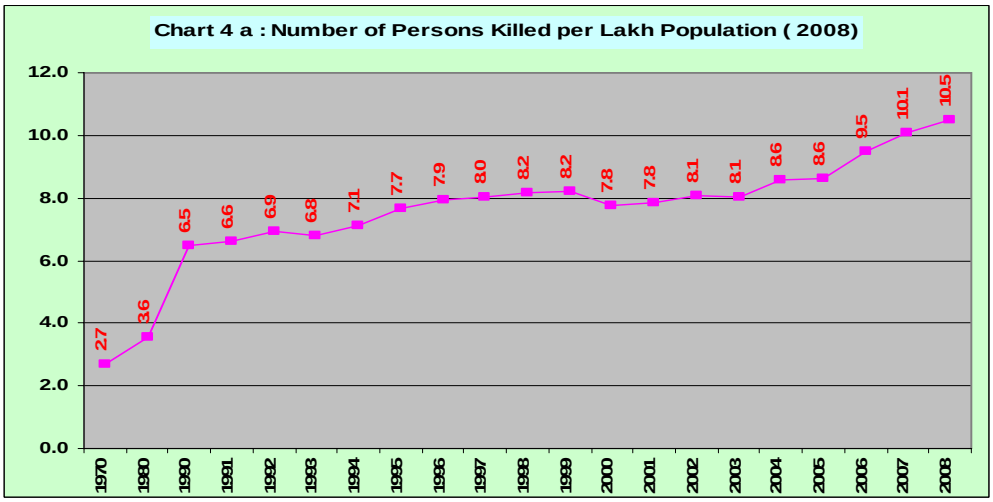


Chart 4 a : Number of Persons Killed per Lakh Population (2008)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
2.7
3.6
6.5
6.6
6.9
6.8
7.1
7.7
7.9
8.0
8.2
8.2
7.8
7.8
8.1
8.1
8.6
8.6
9.5
10.1
10.5
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

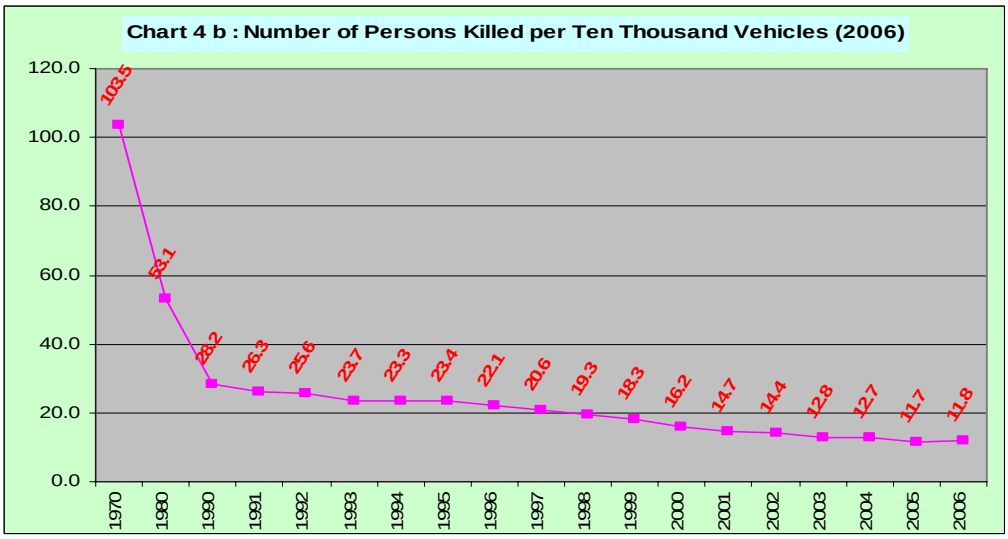


Chart 4 b : Number of Persons Killed per Ten Thousand Vehicles (2006)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
103.5
53.1
28.2
26.3
25.6
23.7
23.3
23.4
22.1
20.6
19.3
18.3
16.2
14.7
14.4
12.8
12.7
11.7
11.8
1970
1980
1990
1991
1992
1993
1994
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1997
1998
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2000
2001
2002
2003
2004
2005
2006

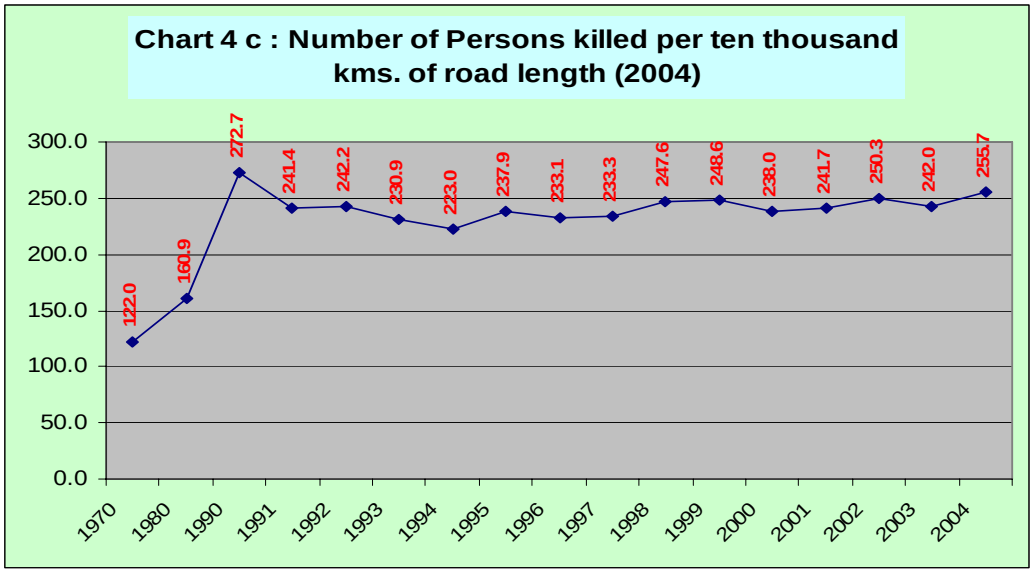


Chart 4 c : Number of Persons killed per ten thousand kms. of road length (2004)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
122.0
160.9
272.7
241.4
242.2
230.9
223.0
237.9
233.1
233.3
247.6
248.6
238.0
241.7
250.3
242.0
255.7
1970
1980
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

5. Road Accidents: Inter State Comparisons

5.1 Maharashtra, Tamilnadu and Karnataka which had a share of around 30.4 % in total number of vehicles registered in India in 2006, accounted for about 38% of the total road accidents , 28 % of the total number of persons killed and 35% of the total persons injured in road accidents in year 2008 (Table 3).

Table: 3 - All India Share of Select States (in %): Road Accidents. Injuries, Deaths and Registered Motor Vehicles				
State/UT	2005	2006	2007	2008(P)
Top 5 States: Share in Total Number of Road Accidents (in %)				
Share of 5 States	54.4	55.4	55.4	55.4
1.Maharashtra	16.5	16.4	15.4	15.6
2.Tamilnadu	12.3	12.0	12.3	12.5
3.Karnataka	9.2	9.4	9.7	9.5
4.Madhya Pradesh	8.0	8.3	8.8	9.0
5.Andhra Pradesh	8.5	9.5	9.2	8.8
Share of the above 5 States in total Registered Vehicles.	43.3	43.6	-	-
Top 5 States: Share in Total Number Killed in Road Accidents (in %)				
Share of 5 States	49.9	51.0	49.8	50.9
1.Andhra Pradesh	11.1	12.1	11.8	11.5
2.Uttar Pradesh	10.5	10.3	10.0	11.0
3.Tamilnadu	10.3	10.4	10.5	10.7
4.Maharashtra	10.8	10.7	9.8	10.3
5.Karnataka	7.3	7.5	7.7	7.4
Share of the above 5 States in total Registered Vehicles.	47.2	47.4	-	-
Top 5 States: Share in Total Number of Injuries in Road Accidents (in %)				
Share of 5 States	52.3	55.9	55.4	56.6
1.Tamilnadu	13.3	13.0	13.9	13.4
2. Karnataka	11.6	12.3	12.0	12.1
3.Andhra Pradesh	10.0	11.8	11.5	11.2
4.Maharashtra	8.8	10.3	9.2	10.1
5.Madhya Pradesh	8.5	8.6	8.8	9.8
Share of the above 5 States in total Registered Vehicles.	43.3	43.6	-	-
Note : Totals may not tally due to rounding. P : Provisional				

5.2 Among the States, Kerala and Gujarat stand out in contrast as regards accidents. Kerala offers an interesting case as it accounts for a share about 4 % in total registered vehicles in 2006 compared to its much higher share in total road accidents (9.1% in 2006 , 8.3% in 2007 and 7.7% in 2008) [Annexure IA] and persons injured in road accidents (10%,9.4% and 8.4% during 2006,2007 and 2008 respectively) [Annexure IB]. However, Kerala accounts for a lower share of around 3.3% in the total road accident related deaths during 2006 to 2008 [Annexure IC]. Factors, which may contribute to high rate of accidents, are population density, road density and composition of vehicle population.

5.3 On the other hand, Gujarat accounts for a share of close to 10% in the number of registered vehicles in 2006 but a lower share of about 7% [Annexure IA], about 7% [Annexure IB] and about 6% [Annexure IC] in total road accidents , persons injured and killed respectively in road accidents in recent years i.e. 2006 to 2008.

Incidence of Road Accidents, Injuries and Deaths: States & UTs.

Per Lakh of Population

5.4 Number of road accidents per lakh of population at all-India level has slightly edged up from about 40 in 2004 to 42 in 2008 [Chart 2a] with wide inter state variations. During 2008 the number of road accidents per lakh of population was highest in Goa (262) followed by Puducherry (141) with lowest in Nagaland (4) [Chart 5a] [Annexure IIA].

5.5 Number of persons injured per lakh of population at all-India level due to road accidents has increased from about 42 in year 2005 to about 46 in 2008 [Annexure IIB] with significant inter state variations. Goa and Puducherry had the highest number of persons injured per lakh of population at 198 and 154 respectively in 2008 with Bihar ,Uttar Pradesh and Lakshadweep showing the lowest number of persons injured per lakh of population at around 6.8 , 9.5 and 9.5 respectively.

5.6 Number of deaths per lakh of population due to road accidents has risen from 8.6 during 2005 to 10.1 during 2007 and 10.5 during 2008 (Chart 4a) with significant variation across the states [Annexure IIC]. The highest number of persons killed per lakh of population in

2008 on account of road accidents was in Dadra & Nagar Haveli (21.7) followed by Goa(19.9), Tamil Nadu(19.3) and Haryana(18.6) [Chart 6a]. On the other hand, Lakshadweep had the distinction of reporting no death due to road accident followed by Nagaland with close to 3 deaths per lakh of population in road accidents in 2008.

Per ten thousand vehicles

5.7 The data on registered vehicle is available only upto end of the financial year 2005-06. The all-India average of road accidents per ten thousand vehicles has consistently declined over the years and fallen to about **51** in 2006 with quite a variation across the States/UTs [Annexure IIA]. For the year 2006, Kerala had the highest number of road accidents per 10,000 vehicle population at 117 followed by Arunachal Pradesh at 113 [Chart 5b]; the lowest figure reported was by Chandigarh (8).

5.8 Similarly, the number of persons injured due to road accidents per 10,000 vehicles has consistently fallen over the years to about 55 in 2006 with variation across the States /UTs [Annexure IIB]. For the year 2006, Sikkim and Arunachal Pradesh had the highest number of persons injured per 10,000 vehicles at around 178 and 163 respectively followed by Jammu & Kashmir at 157.

5.9 The number of persons killed due to road accidents per 10,000 vehicles has also declined steeply from 23.4 in 1995 to 11.8 in 2006 with variation across the States [Annexure IIC]. In terms of fatalities, Arunachal Pradesh and Sikkim had the highest road related accident deaths per ten thousand vehicles at 58 and 32 respectively during 2006. [Chart 6b].

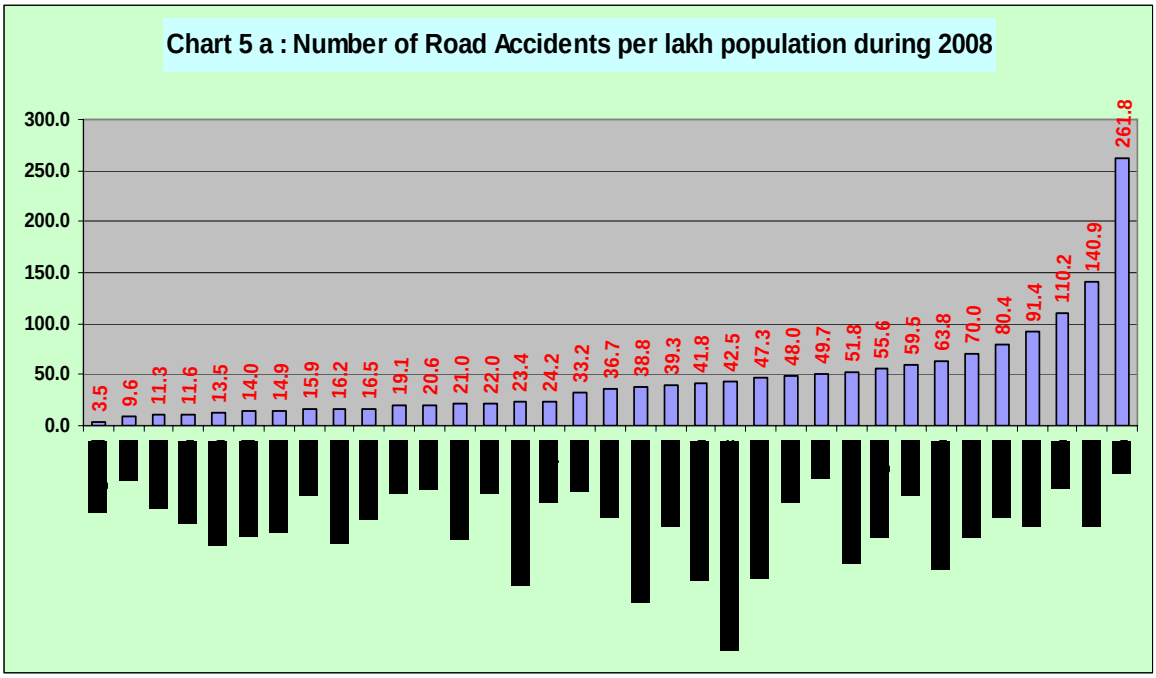


Chart 5 a : Number of Road Accidents per lakh population during 2008
300.0
250.0
200.0
150.0
100.0
50.0
0.0
3.5
9.6
11.3
11.6
13.5
14.0
14.9
15.9
16.2
16.5
19.1
20.6
21.0
22.0
23.4
24.2
33.2
36.7
38.8
39.3
41.8
42.5
47.3
48.0
49.7
51.8
55.6
59.5
63.8
70.0
80.4
91.4
110.2
140.9
261.8

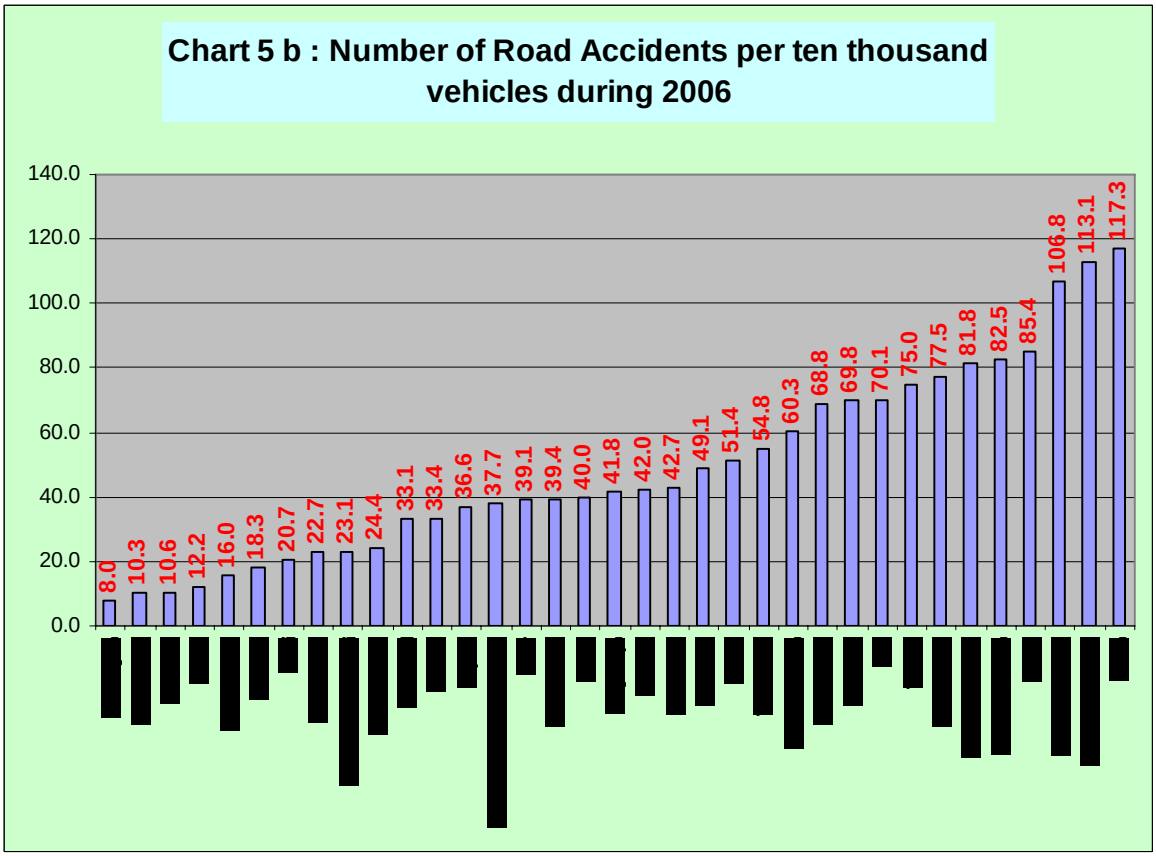


Chart 5 b : Number of Road Accidents per ten thousand vehicles during 2006
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
8.0
10.3
10.6
12.2
16.0
18.3
20.7
22.7
23.1
24.4
33.1
33.4
36.6
37.7
39.1
39.4
40.0
41.8
42.0
42.7
49.1
51.4
54.8
60.3
68.8
69.8
70.1
75.0
77.5
81.8
82.5
85.4
106.8
113.1
117.3

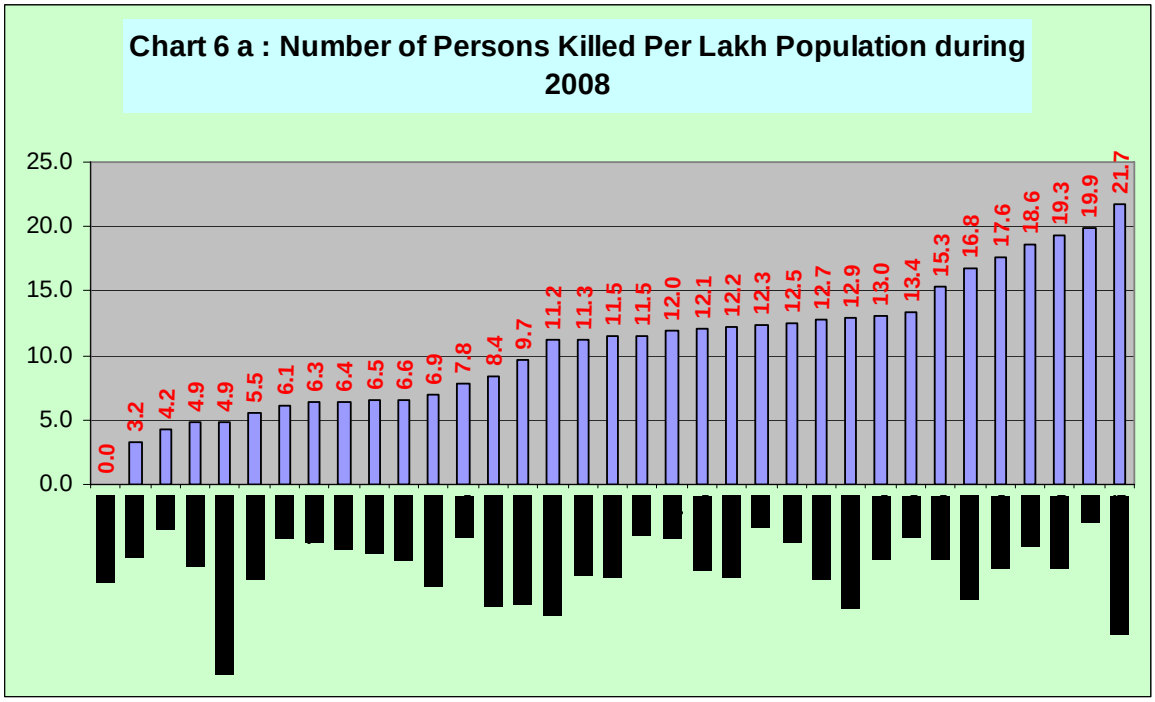


Chart 6 a : Number of Persons Killed Per Lakh Population during 2008
25.0
20.0
15.0
10.0
5.0
0.0
0.0
3.2
4.2
4.9
4.9
5.5
6.1
6.3
6.4
6.5
6.6
6.9
7.8
8.4
9.7
11.2
11.3
11.5
11.5
12.0
12.1
12.2
12.3
12.5
12.7
12.9
13.0
13.4
15.3
16.8
17.6
18.6
19.3
19.9
21.7

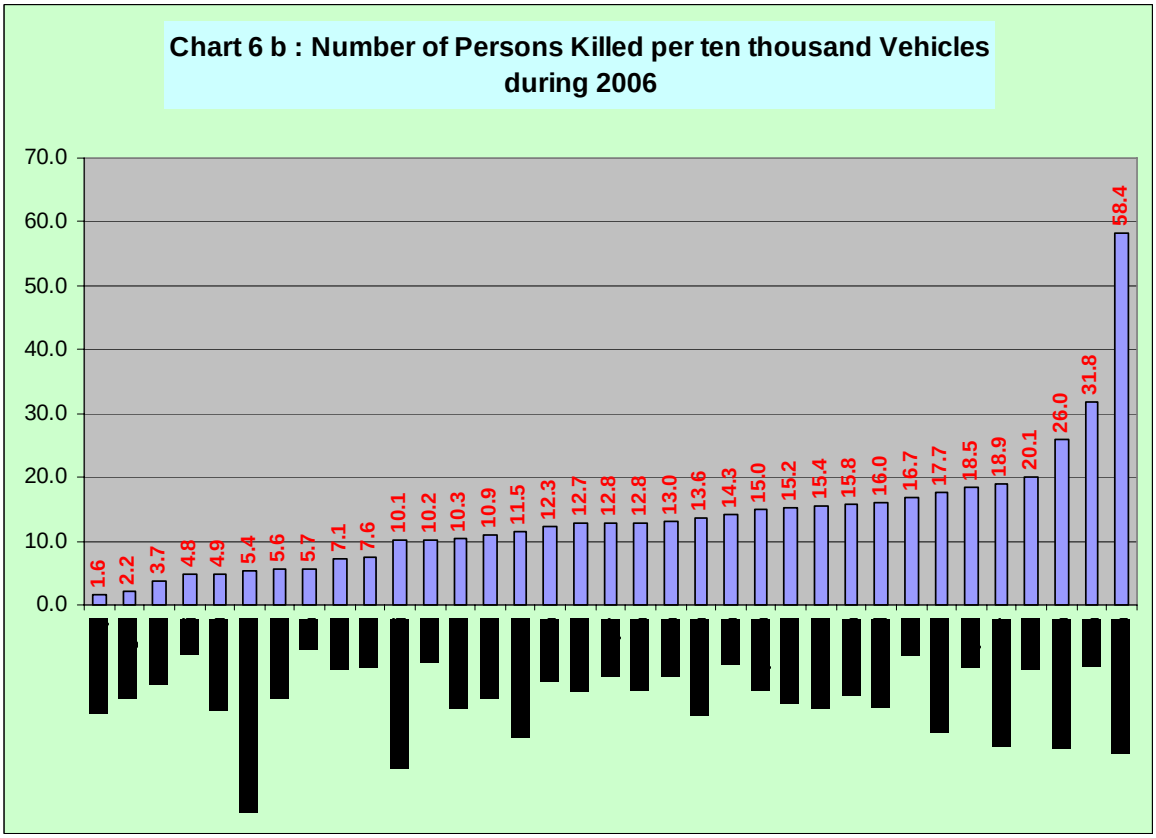
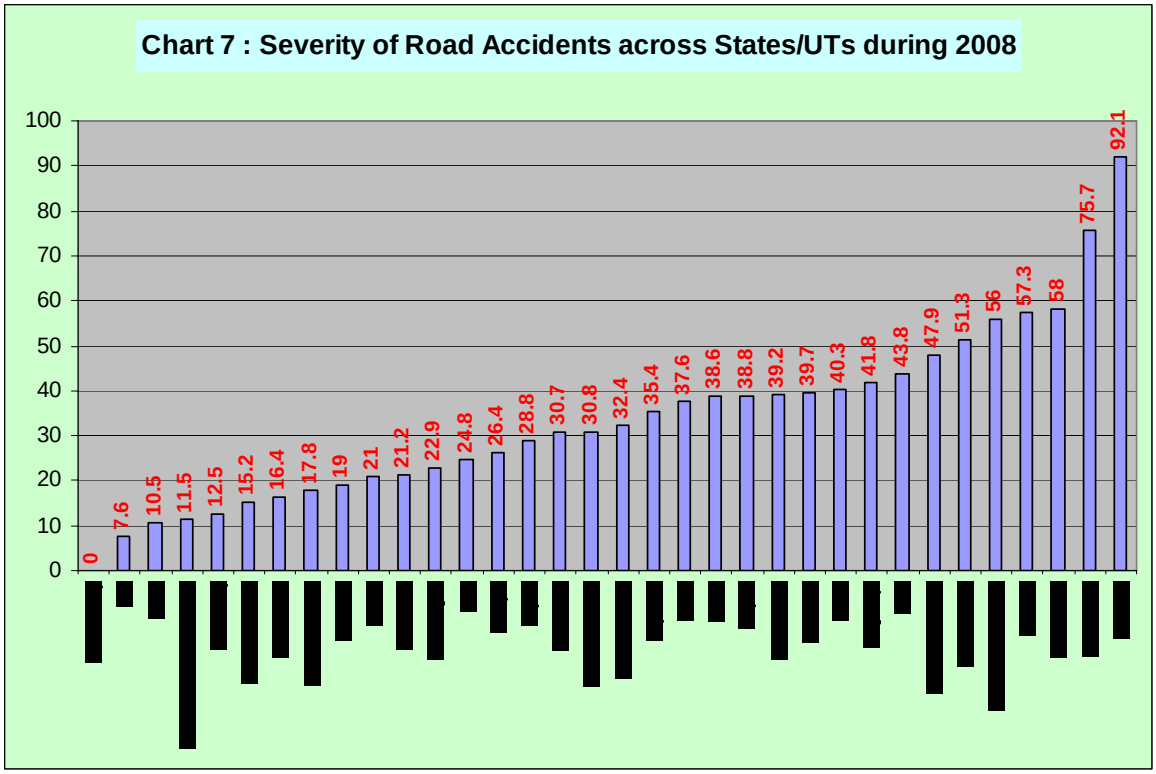


Chart 6 b : Number of Persons Killed per ten thousand Vehicles during 2006
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1.6
2.2
3.7
4.8
4.9
5.4
5.6
5.7
7.1
7.6
10.1
10.2
10.3
10.9
11.5
12.3
12.7
12.8
12.8
13.0
13.6
14.3
15.0
15.2
15.4
15.8
16.0
16.7
17.7
18.5
18.9
20.1
26.0
31.8
58.4

Table 4 : Severity of Road Accident in India					
		Persons Killed per 100 Accidents			
	State/UT	**2005**	**2006**	**2007**	**2008(P)**
1	Andhra Pradesh	28.4	29.3	30.6	32.4
2	Arunachal Pradesh	37.7	51.6	39.6	47.9
3	Assam	36.3	39.2	36.4	38.6
4	Bihar	42.1	42.8	44.8	43.8
5	Chhattisgarh	20.2	19.9	21.2	22.9
6	Goa	6.8	8.2	8.0	7.6
7	Gujarat	18.5	19.5	20.6	21.0
8	Haryana	36.3	38.9	36.8	38.8
9	Himachal Pradesh	29.0	31.8	33.1	30.8
10	Jammu & Kashmir	15.6	17.7	16.3	17.8
11	Jharkhand	38.3	38.4	39.4	39.7
12	Karnataka	17.1	18.4	18.9	19.0
13	Kerala	7.5	8.7	9.5	10.5
14	Madhya Pradesh	15.2	14.0	15.9	15.2
15	Maharashtra	14.2	15.0	15.2	16.4
16	Manipur	22.8	30.5	21.2	26.4
17	Meghalaya	29.4	37.9	42.3	41.8
18	Mizoram	61.5	67.4	64.9	57.3
19	Nagaland	23.0	35.1	37.2	92.1
20	Orissa	33.6	35.6	36.5	37.6
21	Punjab	60.7	61.9	64.6	62.7
22	Rajasthan	29.4	30.6	34.1	35.4
23	Sikkim	40.7	37.2	34.7	40.3
24	Tamil Nadu	18.1	20.0	20.4	21.2
25	Tripura	31.8	24.7	27.8	28.8
26	Uttarakhand	65.2	66.7	64.9	75.7
27	Uttar Pradesh	54.3	55.7	53.0	51.3
28	West Bengal	37.5	40.6	40.7	39.2
	UTs				
1	Andaman & Nicobar Islands	11.2	14.3	13.3	11.5
2	Chandigarh	25.5	27.5	28.3	30.7
3	Dadra & Nagar Haveli	43.3	43.7	56.9	56.0
4	Daman & Diu	38.7	47.4	48.3	58.0
5	Delhi	19.9	23.3	24.8	24.8
6	Lakshadweep	0.0	10.0	0.0	0.0
7	Puducherry	12.7	13.2	14.6	12.5
	National Average	**21.6**	**22.9**	**23.9**	**24.7**
P: Provisional					



6. Select Cities: Road Accidents, Injuries, Deaths and Severity

6.1 The data on road accidents is being collected for 23 select cities of India. For the year 2008, these 23 cities accounted for a share of 9.7% in India's total estimated population but accounted for a share of 18.0% in total road accidents in the country, 10.6% in total persons injured in road accidents and 8.7% in total persons killed in road accidents. These 23 cities accounted for a much higher share of **23.5**% in total vehicles registered which is almost two and a half times their share of population.

6.2 For these 23 select cities, number of accidents and persons injured per lakh of population at about 78 and 49 respectively was higher than the corresponding national accident rate and persons injured per 100,000 of population at about 42 and 46 respectively . However, number of persons killed per lakh of population for these 23 cities was slightly lower at 9.3 compared to 10.5 for the entire country.

The other notable feature is wide variation across cities in road accident parameters in terms of accidents per lakh of population (ranging from 19 in Kolkata to 205 in Bhopal), persons injured per lakh of population (from a low of around 11 in Varanasi to 191 in Bhopal) and persons killed per lakh of population (about 3 in Kolkata and Mumbai to about 20 in Lucknow). The low accident rates for a city like Kolkata may be due to low average traffic speed of motorized traffic.

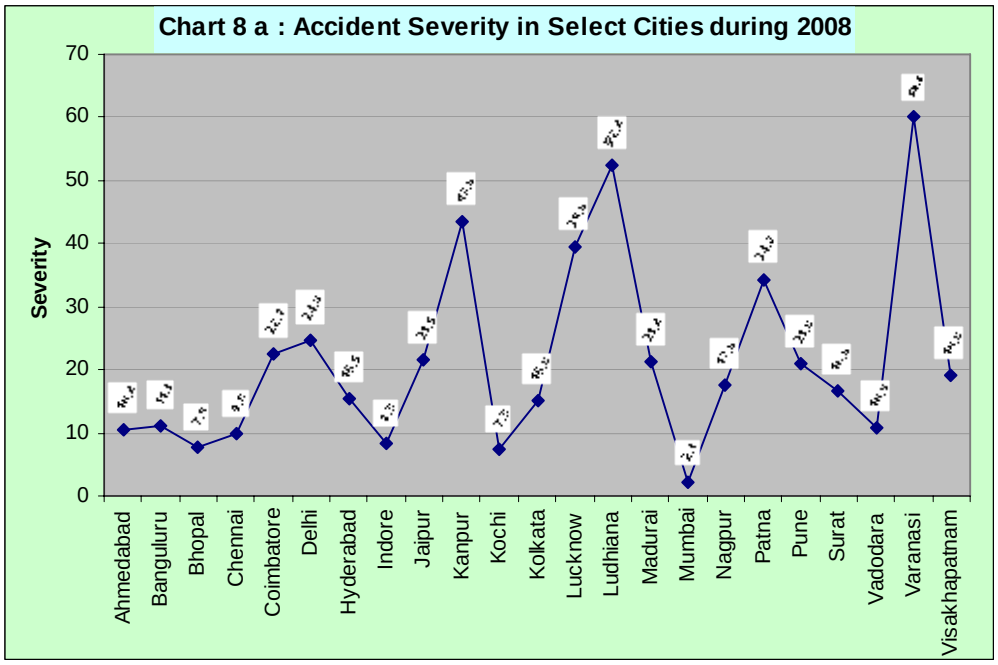
The other accident related parameter is extent of accident severity (road accident related deaths per 100 accidents). It varies from a low of 2 in Mumbai to a high of about 60 in Varanasi. A number of smaller cities including Ludhiana (52), Kanpur (44), Lucknow (40) and Patna (34) have also reported very high accident severity.

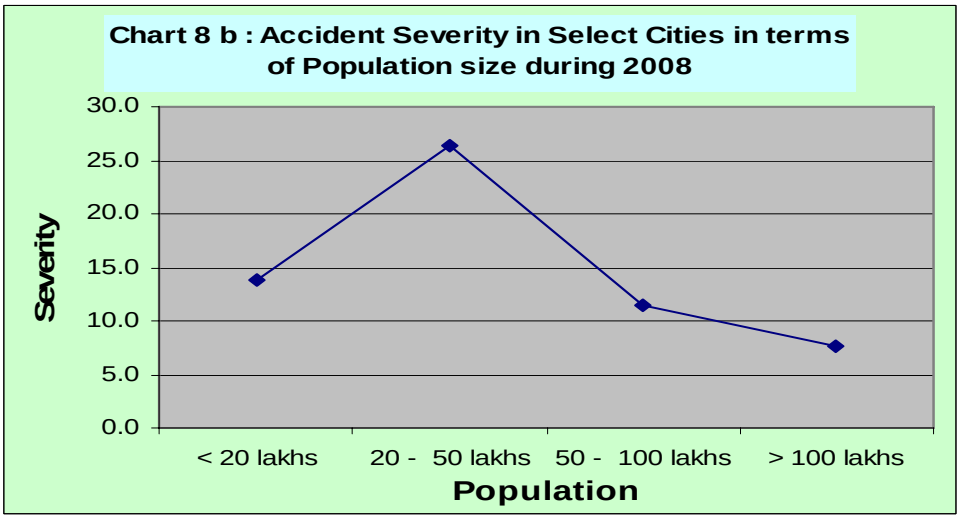
Table 5A: Accident Profile of Selected Cities 2008

			Total No. of				Accident Severity*	No. per 100,000 population		
	Name of city	Population**	Fatal Accidents	All Accidents	Persons Killed	Persons Injured		Total Accidents	Persons Killed	Persons Injured
1	Ahemedabad	5288962	244	2519	263	2494	10.4	47.0	4.9	46.5
2	Banguluru	6698651	838	7773	865	6180	11.1	114.4	12.7	91.0
3	Bhopal	1708450	263	3554	279	3305	7.9	205.1	16.1	190.7
4	Chennai	7216068	612	6386	629	4971	9.8	87.2	8.6	67.9
5	Coimbatore	1683425	295	1377	312	1313	22.7	80.6	18.3	76.9
6	Delhi	15926245	2015	8435	2093	7343	24.8	52.2	13.0	45.5
7	Hyderabad	6601340	506	3342	518	3205	15.5	49.9	7.7	47.9
8	Indore	1774052	256	3439	285	2838	8.3	191.1	15.8	157.7
9	Jaipur	2872666	422	2098	452	1894	21.5	72.0	15.5	65.0
10	Kanpur	3140883	512	1340	584	1247	43.6	42.1	18.3	39.1
11	Kochi	1478456	169	2374	173	2374	7.3	158.3	11.5	158.3
12	Kolkata	14454844	411	2812	421	2124	15.0	19.2	2.9	14.5
13	Lucknow	2604459	485	1308	518	847	39.6	49.5	19.6	32.1
14	Ludhiana	1619535	250	500	262	255	52.4	30.4	15.9	15.5
15	Madurai	1266345	139	663	142	635	21.4	51.6	11.1	49.4
16	Mumbai	18771964	589	29781	622	6453	2.1	156.4	3.3	33.9
17	Nagpur	2409012	249	1503	264	1465	17.6	61.5	10.8	60.0
18	Patna	2109943	373	1096	375	570	34.2	51.2	17.5	26.6
19	Pune	4617904	458	2270	477	1890	21.0	48.5	10.2	40.3
20	Surat	3825267	239	1486	246	1120	16.6	38.3	6.3	28.9
21	Vadodara	1715174	157	1493	162	1252	10.9	85.8	9.3	72.0
22	Varanasi	1301122	187	335	201	143	60.0	25.4	15.2	10.8
23	Visakhapatnam	1518713	256	1423	271	1490	19.0	92.4	17.6	96.7
	Total 23 cities	110603481	9925	87307	10414	55408	11.9	77.8	9.3	49.4
	All India	1144734000	106591	484704	119860	523193	24.7	42.3	10.5	45.7

Note: * Accident Severity: Road accident deaths/100 accidents; ** Projected

Table 5 B : Percent Share of 23 Selected Cities in 2008 in India		
1	Population (2008)	9.7
2	Fatal Accidents	9.3
3	All Accidents	18.0
4	Persons Killed	8.7
5	Persons Injured	10.6
6	Registered Motor Vehicles (2006)	**23.5**





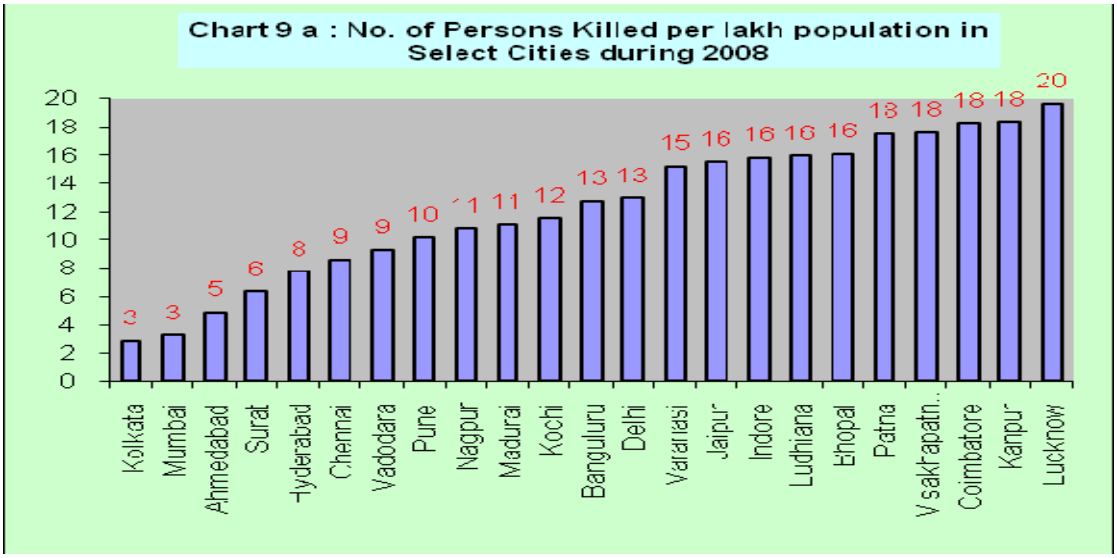


Chart 9 a : No. of Persons Killed per lakh population in Select Cities during 2008
20
18
16
14
12
10
8
6
4
2
0
3
5
6
8
9
9
10
11
11
12
13
13
15
16
16
16
16
18
18
18
18
20
Kolkata
Mumbai
Ahmedabad
Surat
Hyderabad
Chennai
Vadodara
Pune
Nagpur
Madurai
Kochi
Bangaluru
Delhi
Varanasi
Jaipur
Indore
Ludhiana
Bhopal
Patna
Vsakhapatn..
Coimbatore
Kanpur
Lucknow

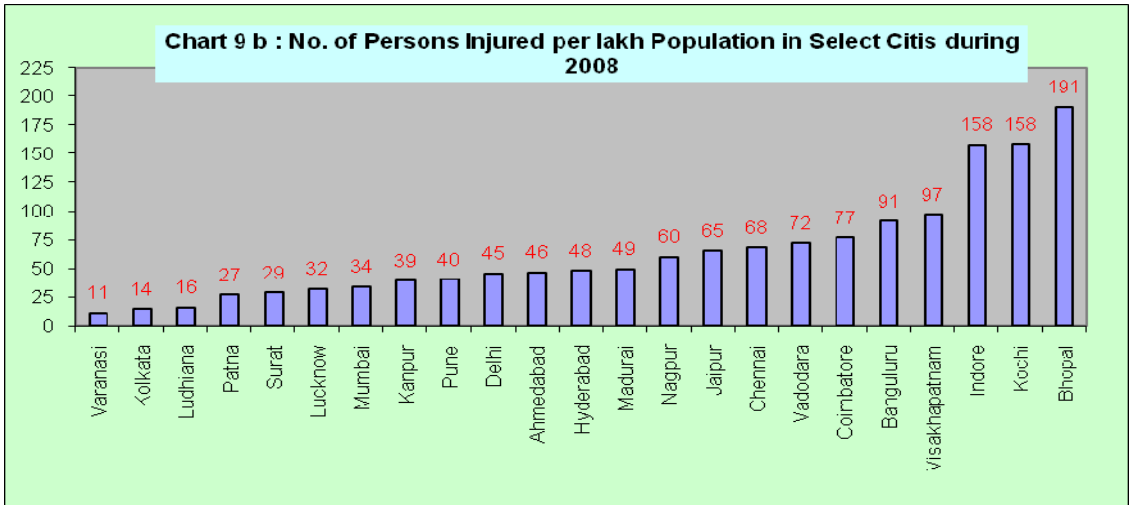


Chart 9 b : No. of Persons Injured per lakh Population in Select Citis during 2008
225
200
175
150
125
100
75
50
25
0
11
14
16
27
29
32
34
39
40
45
46
48
49
60
65
68
72
77
91
97
158
158
191
Varanasi
Kolkata
Ludhiana
Patna
Surat
Lucknow
Mumbai
Kanpur
Pune
Delhi
Ahmedabad
Hyderabad
Madurai
Nagpur
Jaipur
Chennai
Vadodara
Coimbatore
Bangaluru
Visakhapatnam
Indore
Kochi
Bhopal

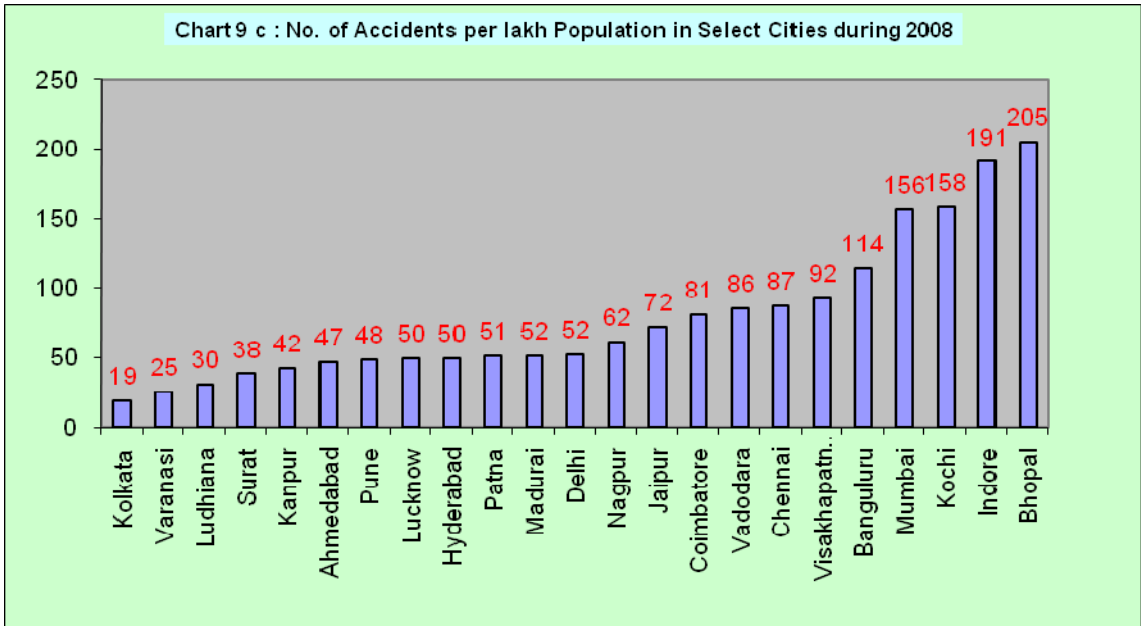


Chart 9 c : No. of Accidents per lakh Population in Select Cities during 2008
250
200
150
100
50
0
19
25
30
38
42
47
48
50
50
51
52
52
62
72
81
86
87
92
114
156
158
191
205
Kolkata
Varanasi
Ludhiana
Surat
Kanpur
Ahmedabad
Pune
Lucknow
Hyderabad
Patna
Madurai
Delhi
Nagpur
Jaipur
Coimbatore
Vadodara
Chennai
Visakhapatn..
Bangaluru
Mumbai
Kochi
Indore
Bhopal

7. Some General Observations: Inter-State/ Cities Comparisons

- Inter State /UT comparisons of accident related data need to be viewed keeping in view the differences in road network, state of roads, size of human and vehicular population, levels of urbanization and accident reporting systems. These parameters have implications for accident rates across the States.
- Incidence of accident normalized in terms of road length, human population or vehicle population provides comparable accident data across States and UTs.

Box: 2-Causes of Underreporting of Road Traffic Accidents and Injuries

- Absence of formal reporting agreements and sharing of information between police, hospitals and other agencies
- Some type of injuries like collisions with fixed and stationary objects, skid and fall, collision between smaller vehicles are not reported to police.
- Agreement between individuals involved in a crash is often found to be a suitable method between the parties, as involving police would lead to additional costs.
- Not all Road Traffic Injuries (RTIs) are reported to police uniformly in all parts of the country.
- Individuals do not feel the need to report to police unless the injury is serious, results in legal proceedings and influence compensation process.
- Even when injured persons go to police, they are not officially registered due to paucity of time or the busy schedule of activities in police stations.
- Individuals provided care by general practitioners; nursing homes and smaller health care institutions are not reported to police to avoid harassment and legal complications.
- Late hospital deaths due to various complications of road traffic injuries are not recorded as deaths due to traffic injuries, but given other causes. Death certificates are not filled in a systematic and standardized manner in hospitals across the country.
- The immediate procedures of burial or cremation based on local social cultural practices discourage families to get involved with police as this can delay the rituals.
- Limited manpower and facilities among police often make reporting very difficult.
- As there is no reporting practice on all deaths and injuries to any single agency from all health care institutions, information is not totally available within the health sector;

Source: Report on Road Traffic Injury Prevention in India Annexure to the Report (Volume-II) pages 46- 47 of the Report of the Committee on Road Safety and Traffic Management.

8. Classification of Accidents

Accidents in terms of Classification of Roads

8.1 National Highways accounted for 29% in total road accidents and 36% in total number of persons killed in 2008. Similarly, State Highways accounted for 26%of total accidents and a share of close to 28 % in the total number of persons killed in road accidents in 2008 (Table 6 and Table 7). Highways permit greater speed resulting in relatively greater number of road accidents and fatalities. State wise break up of accidents, injuries and deaths due to road accidents on stretches of National and State Highways are given in Annexure III (A), (B) & (C) and Annexure IV (A), (B) & (C).

Table 6 : Number of Accidents and Number of persons Killed and Injured as per type of roads

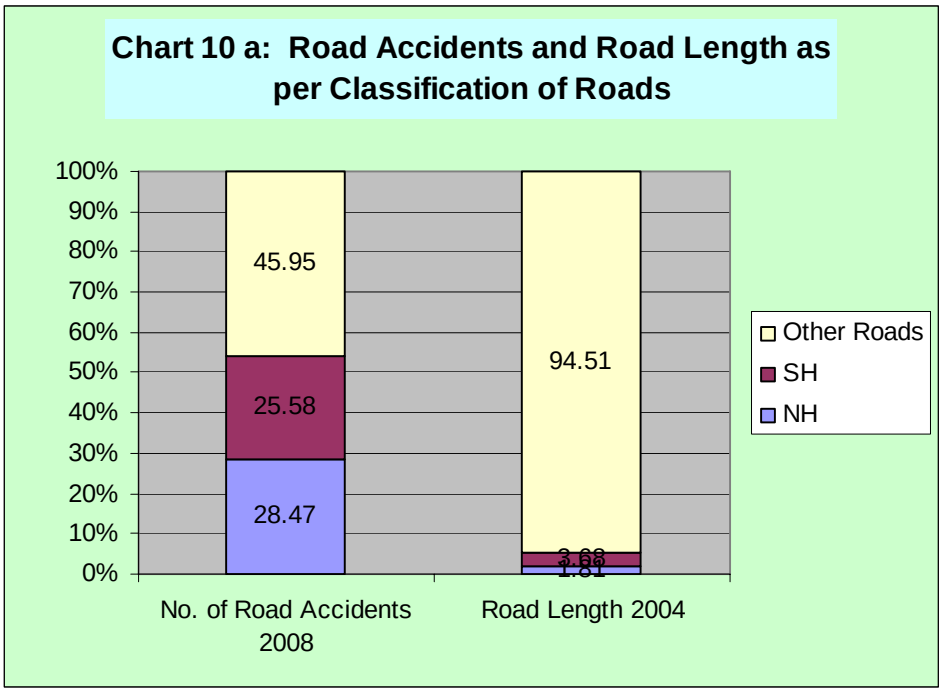
Year	National Highways			State Highways		
	Percentage share in			Percentage share in		
	Total Number of Road Accidents	Number of Persons Killed	Number of Persons Injured	Total Number of Road Accidents	Number of Persons Killed	Number of Persons Injured
2001	28.6%	39.7%	29.5%	22.5%	27.6%	25.6%
2002	32.3%	39.7%	32.4%	23.5%	27.2%	25.4%
2003	31.4%	38.6%	30.1%	22.4%	28.2%	26.7%
2004	30.3%	37.5%	30.8%	23.5%	26.9%	24.9%
2005	29.6%	37.3%	31.3%	23.6%	27.2%	25.7%
2006	30.4%	37.7%	30.8%	18.5%	26.8%	24.9%
2007	29.0%	35.5%	30.2%	24.4%	27.7%	26.2%
2008(P)	28.5%	35.6%	28.6%	25.6%	28.4%	27.5%

(P) : Provisional

Table 7 : Number of Accidents, persons killed & injured as per road classification (2008)

Road Classification	National Highways	State Highways	Other Roads
No. of Accidents	137995(28.47)	123972(25.58)	222737(45.95)
No. of Persons Killed	42670(35.60)	34081(28.43)	43109(35.97)
No. of Persons Injured	149693(28.61)	143708(27.47)	229792(43.92)

Note: Figures within parenthesis indicate share in total accidents, killed and injured in the respective road categories.



Spatial distribution of Road Accidents

8.2 An understanding of spatial distribution of road accidents is vital for diagnosis. At a broad level it helps in identifying places and regions with high incidence of accidents. In 2008, the total number of accidents that occurred in rural areas was more than that in the urban areas; the former accounting for 53% (2,56,695) and the latter accounting for 47% (2,28,009) of total accidents. Rural areas had more fatalities (59.4%) than urban areas. The number of persons injured was also more in rural areas (58.7%) as compared to urban areas.

9. Accidents in terms of involvement of Vehicle type

9.1 Motorized vehicles accounted for 91.5% of the total road accidents while the non-motorized vehicles and other objects accounted for a small share of 8.5% in the total number of accidents in the year 2008. Amongst the vehicle category - trucks, tempos, tractors and other articulated vehicles accounted for about a quarter of the total road accidents (23.4%) followed by two wheelers (21.8%), cars, jeeps and taxis (20.7%), buses (9.0%), auto rickshaws (7.5%) and others (17.6 %) in 2008 [Table 8].Details of accidents in terms of vehicle typology are given in Annexure VII.

Table 8: Share of Different Vehicles in total Road Accidents, Fatal Accidents, Persons Killed and Persons Injured (2008)							
	2-wheelers	Auto-rickshow	Cars	Buses	Trucks, tempos, tractors and other articulated vehicles	Other Motor Vehicles	Other Vehicles/Objects
Accidents	21.8	7.5	20.7	9.0	23.4	9.1	8.5
Fatal Accidents	16.9	4.6	20.0	9.8	30.3	11.1	10.2
Persons Killed	16.1	4.8	17.7	10.4	29.9	11.4	9.7
Persons Injured	19.4	8.4	19.5	12.8	22.7	9.5	7.7

Note: Cars includes jeeps & taxis, Two-Wheelers includes Motor cycle, Scooter & Moped ; Other Vehicles/Objects includes Cycle, Cycle rickshaws, Hand drawn vehicle, Pedestrian, Animal, Tree, Level crossing & Other fixed objects.

9.2 However, category of trucks, tempos, tractors and other articulated vehicles accounted for about 30% of the persons killed compared to their share of about 23 % in the total road accidents. Similarly, buses accounted for a higher share of fatalities and deaths around 10.4% compared to its share of 9% in accidents. The share of various vehicle categories in total road accidents , persons killed and injured are given in Charts 11(a),11(b) & 11(b) respectively.

Road Accidents and Fatalities by Type of Vehicle Involvement

9.3 Even though Buses, trucks, tempos, tractors, other articulated vehicles and Buses constitute only about 10.2 % of total registered vehicles, they are responsible for about 32.4 % of road accident (Chart 11 a) and around two-fifth (Chart 11 b) of fatalities in the year 2008.

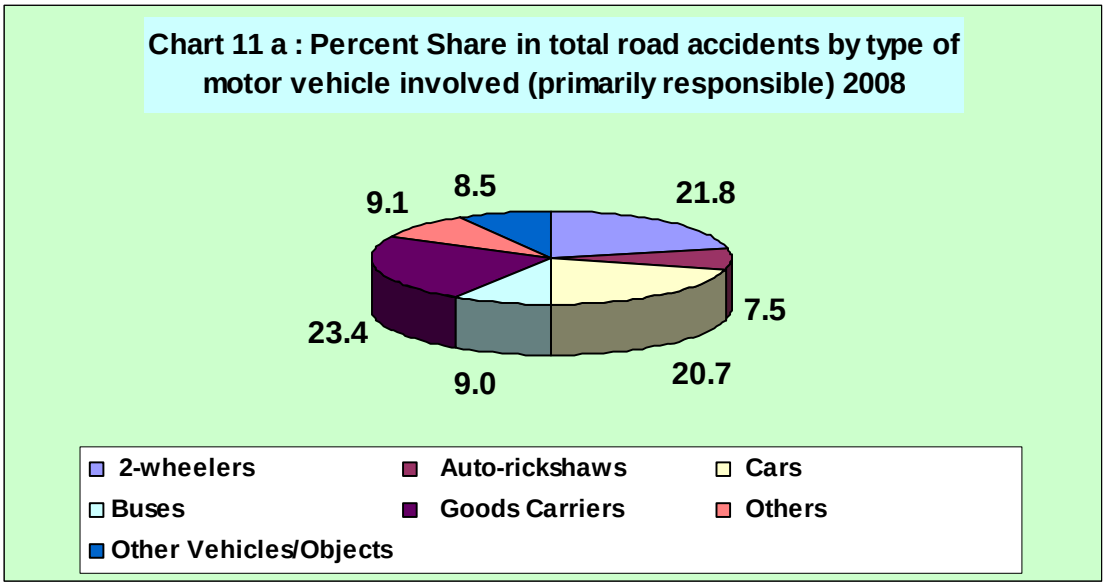


Chart 11 b : Percent Share of person killed in road accidents by type of motor vehicle involved (primarily responsible) 2008

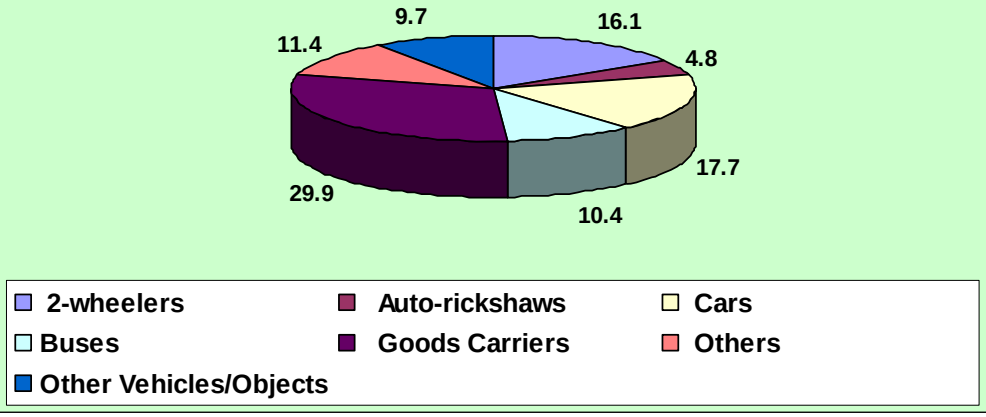
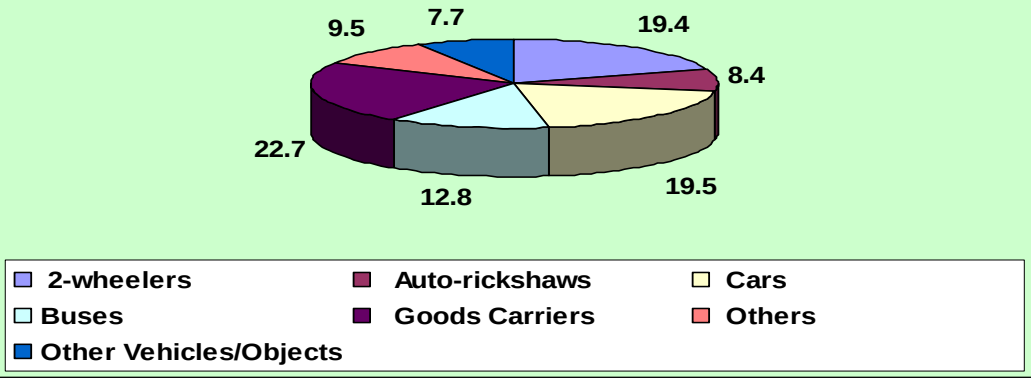
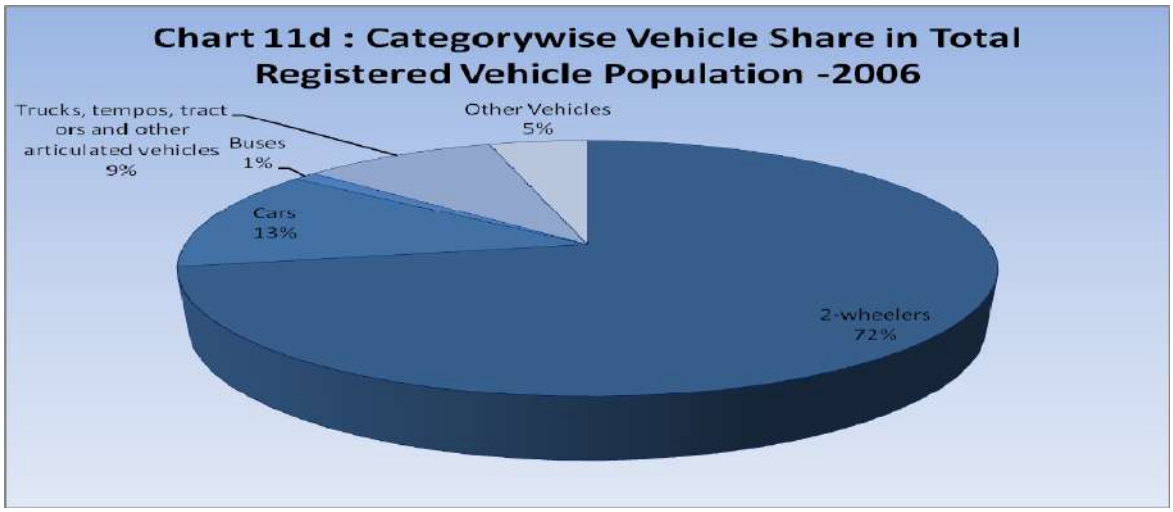
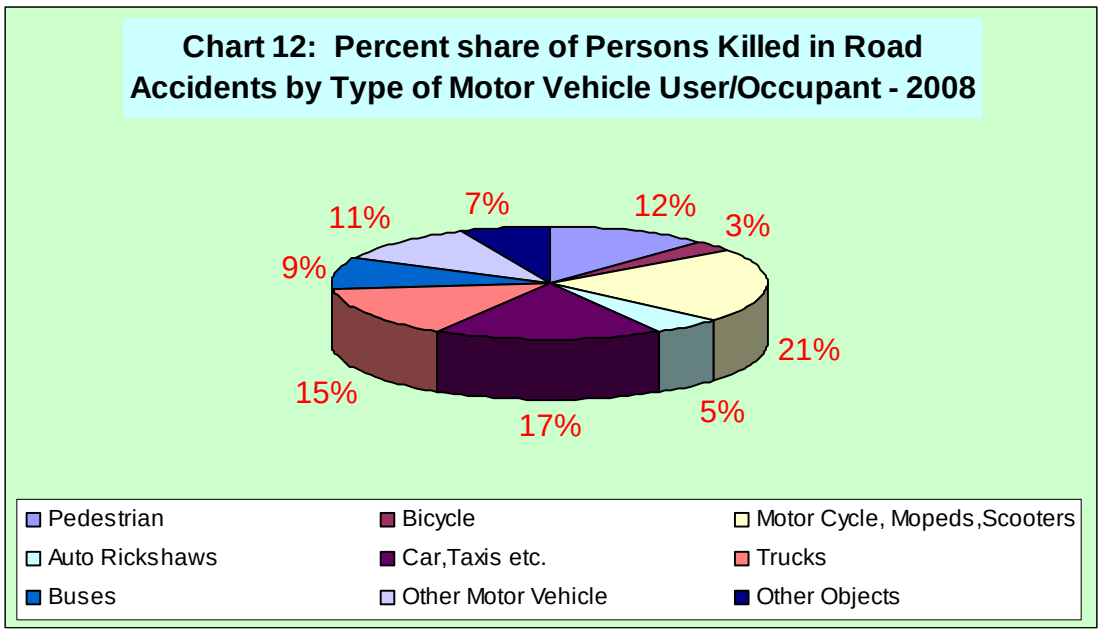


Chart 11 c : Percent Share of person Injured in road accidents by type of motor vehicle involved (primarily responsible) 2008







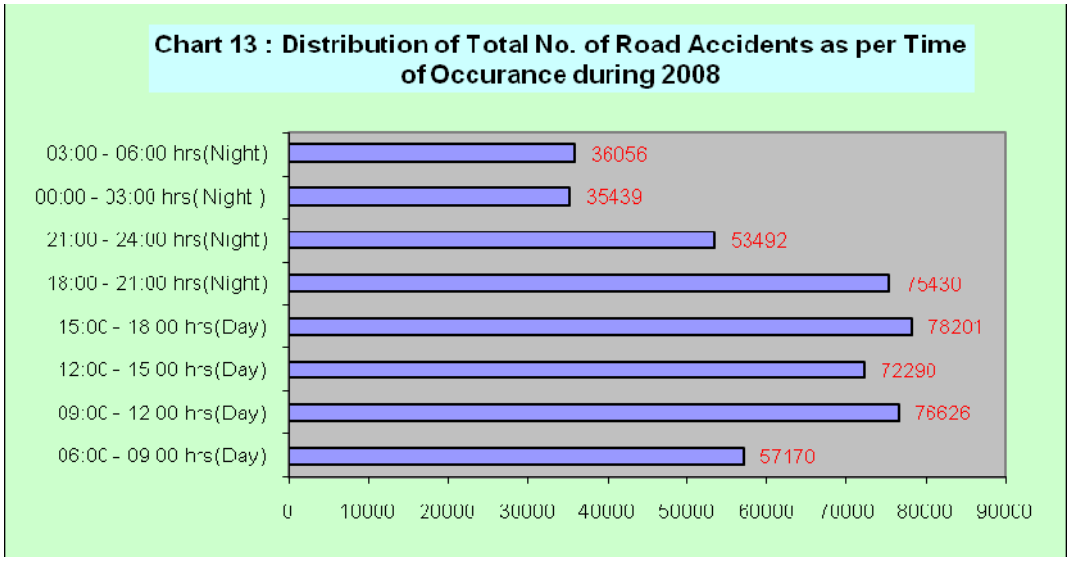
Occupants of two-wheelers, passenger cars & taxis, trucks and pedestrians accounted for 21%, 12%, 11% and 15 % of total road fatalities. Bicycles & pedestrians are most unprotected road users and have to share scarce road space with motorized vehicles of different engine power and speed resulting in serious conflicts within traffic flows.

10. Time of Occurrence of Road Accidents

10.1 Information on timing of accidents is important for framing strategies for prevention and for organization of care of accident victims. The distribution of the total accidents during

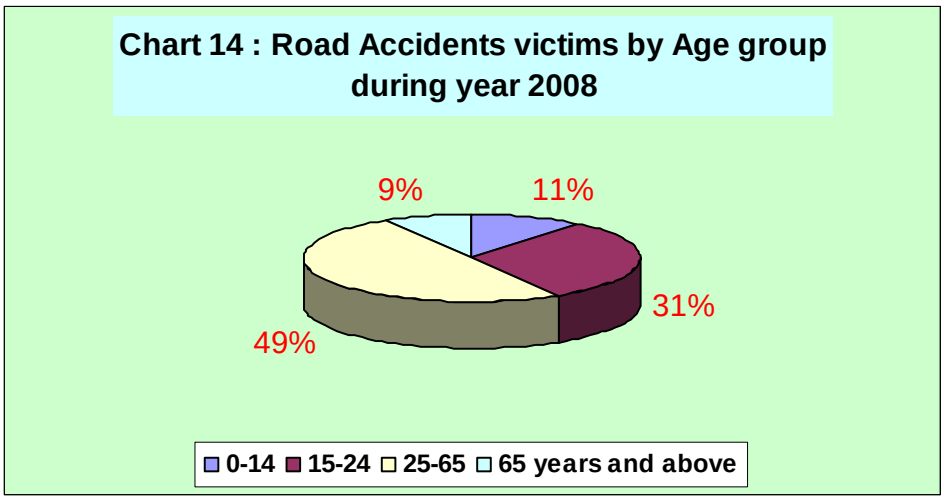
night time (6 PM to 6 AM) and day time (6 AM to 6 PM) is in the ratio of 2:3 i.e. about 41% and 59% respectively.

Table:9-Road Accidents as per the Time of Occurrence(2008)		
Time	**No. of Accidents**	**Percent Share in total Accidents**
06:00 - 09:00 hrs(Day)	57170	11.8
09:00 - 12:00 hrs(Day)	76626	15.8
12:00 - 15:00 hrs(Day)	72290	14.9
15:00 - 18:00 hrs(Day)	78201	16.1
18:00 - 21:00 hrs(Night)	75430	15.6
21:00 - 24:00 hrs(Night)	53492	11.0
00:00 - 03:00 hrs(Night)	35439	7.3
03:00 - 06:00 hrs(Night)	36056	7.5
Total for 24hrs whole year	484704	100



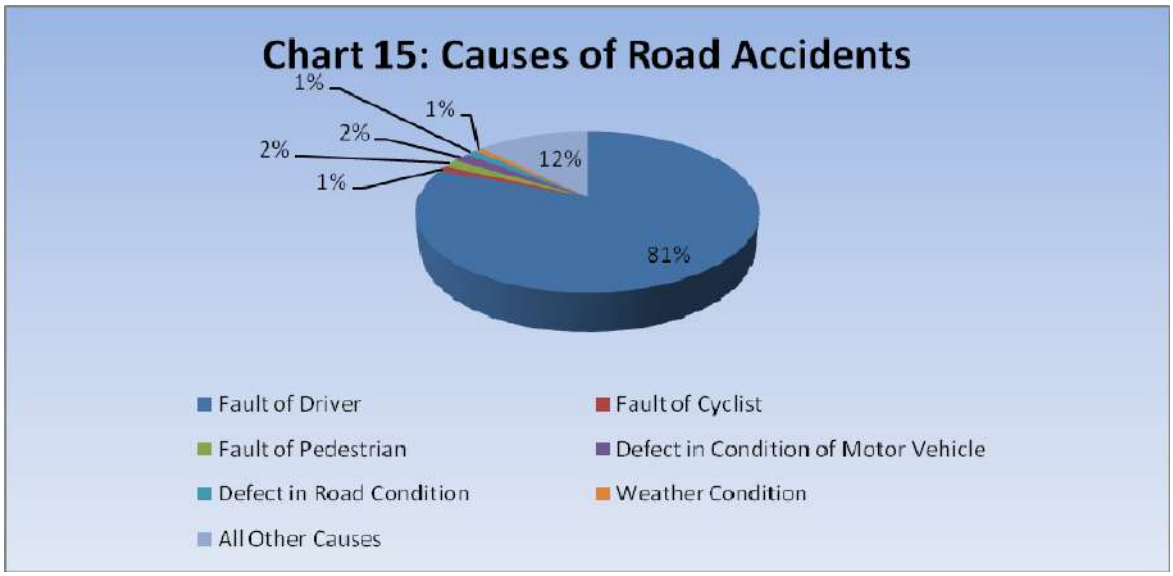
11. Age Profile of Accident Victims

11.1 As per the detailed age profile of accident victims other than the drivers available for the year 2008 it is observed that the age group (25-65 years) accounted for the largest share of 49 % of total road accident casualties followed by the age group (15-24 years) with a share of about 31 %. Hence, about half of the road traffic casualties are in the age group (25-65 years), the key wage earning age group. The loss of the main earning member can be disastrous, leading to fall in income of the household and lower living standards.



12. Causes of Road Accidents

12.1 The analysis of accidents by cause shows that drivers' fault is the single most important factor responsible for accidents, fatalities and injuries. Drivers' fault accounted for about 81% (3,85,018 accidents) of total accidents; 82% (4,21,537 persons injured) of the total number of persons injured and 76% (89,360 persons killed) of the total number of persons killed in road accidents during 2008**.** The fault of the cyclist and that of the pedestrian appears to be of marginal consequence accounting for about 2-3% of the accidents/persons killed or injured. The accidents caused due to defects in the motor vehicles also accounted for 2% of the accidents/fatalities/persons killed and injured. Tables enumerating the causes of accidents across the States are provided in Annexure V-VI.



13. International Comparisons of Road Traffic Injury Accidents and Deaths

Cross country comparisons of incidence of road accident related deaths and injury accidents per lakh persons as per World Road Statistics 2009 (published by International Road Federation, Geneva) shows lower incidence of both the parameters for India in comparison to many developed and developing countries. The number of road accident deaths per lakh of population at 10.5 in India was much lower compared with 12.72 in Korea and 13.68 in USA (Chart 16). The highest number of deaths per lakh of population was reported for Anguilla (31.25) in 2007, followed closely by South Africa (31.18). Philippines reported the lowest number of deaths per lakh population at 1.11 in 2006. However, for 2007, Sierra Leone reported the lowest fatality rate of 1.31 per 100000 persons. Similarly, injury accidents per lakh of population for both in India and China were substantially lower at around 36.69 and 24.82 respectively when compared to U.K. (298.54), U.S.A. (579.68), France (131.75), Germany (408.23) etc. Qatar reported the the highest injury accident rate at 9988.55 in 2002, but for 2007 the highest figure was reported by Jordan (1934.48). Niger (6.31) in 2006 and Australia (6.98) in 2007 reported the lowest figures in respect of injury accidents per 100000 persons. A cross country comparison of incidence of road related deaths and injury accidents are given in Table 10.

The World Health organization brought out its Global Status Report on Road Safety in June 2009. This report involves the first broad assessment of the status of road safety in 178 countries, using data drawn from a standardized survey conducted in 2008. The key findings of this report are summarized in Box 3. This report also cites data from the World Health Statistics (refer Table 11) to indicate that road traffic injuries would become the fifth highest leading cause of death, outranking diabetes mellitus, HIV/AIDS, certain form of cancers and tuberculosis, in 2030 as compared to its ninth position in 2004.

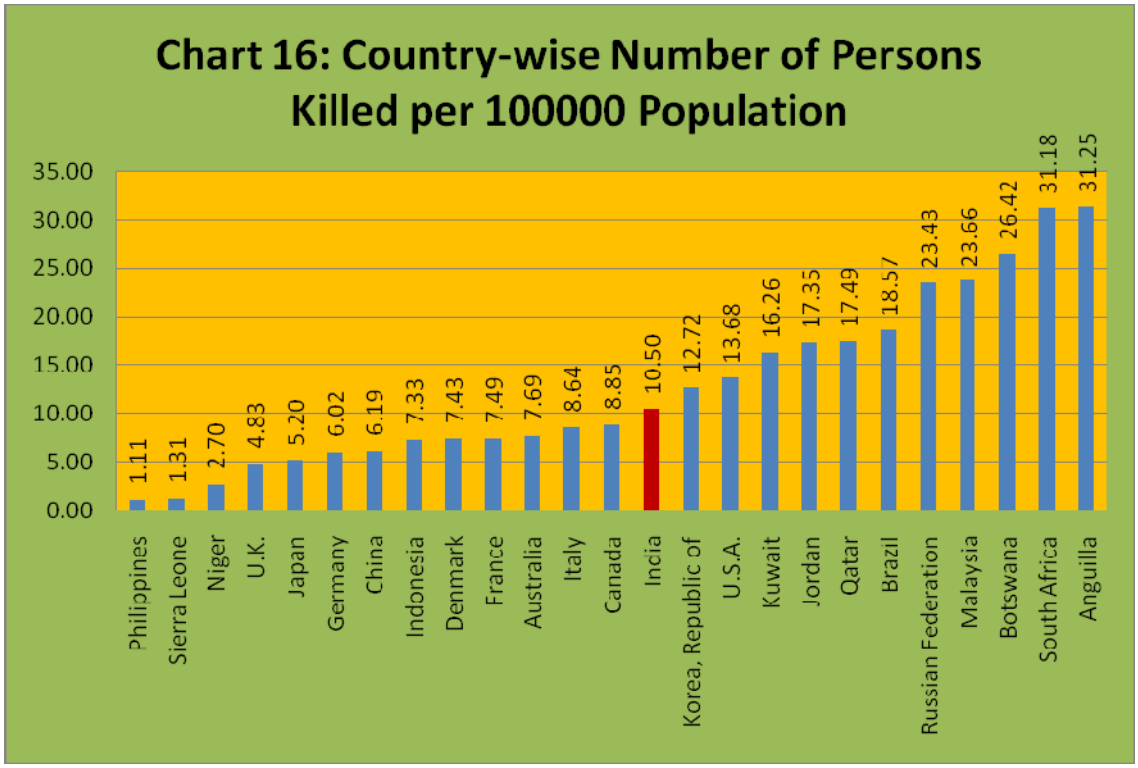


Chart 16: Country-wise Number of Persons Killed per 100000 Population
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
1.11
1.31
2.70
4.83
5.20
6.02
6.19
7.33
7.43
7.49
7.69
8.64
8.85
10.50
12.72
13.68
16.26
17.35
17.49
18.57
23.43
23.66
26.42
31.18
31.25
Philippines
Sierra Leone
Niger
U.K.
Japan
Germany
China
Indonesia
Denmark
France
Australia
Italy
Canada
India
Korea, Republic of
U.S.A.
Kuwait
Jordan
Qatar
Brazil
Russian Federation
Malaysia
Botswana
South Africa
Anguilla

Table 10 : Cross Country Comparison of Incidence of Road related Deaths and Injury Accidents in 2007*

Sl. No.	Country	Killed per 100000 Population	Injury Accidents per 100000 Population
1	Anguilla	31.25	N.A.
2	Australia	7.69	6.98
3	Botswana	26.42	1035.75
4	Brazil	18.57 (2006)	61.15 (2004)
5	Canada	8.85 (2006)	451.35 (2006)
6	China,PR	6.19	24.82
7	Denmark	7.43	101.60
8	France	7.49	131.75
9	Germany	6.02	408.23
10	Indonesia	7.33	8.21 (2005)
11	India	10.5	36.69
12	Italy	8.64	388.84
13	Japan	5.20	651.52
14	Jordan	17.35	1934.48
15	Korea, Republic of	12.72	436.81
16	Kuwait	16.26 (2004)	2231.24 (2004)
17	Malaysia	23.66	1306.79 (2006)
18	Niger	2.70 (2006)	6.31 (2006)
19	Philippines	1.11 (2006)	7.23 (2006)
20	Qatar	17.49	9988.55 (2002)
21	Russian Federation	23.43	164.53
22	Sierra Leone	1.31	13.06 (2003)
23	South Africa	31.18	306.73
24	U.K.	4.83	298.54
25	U.S.A.	13.68	579.68

Note: Injury accident refers to road accident resulting in at least one injury or killed person.

* Data for the latest year available & reported in WRS 2009, as indicated in parentheses. Figures for India pertain to 2008.

Source: 1. For India – Transport Research Wing, Ministry of Road Transport & Highways.
2. For Other Countries - World Road Statistics (WRS) 2009.

Table 11: Leading Causes of Death, 2004 and 2030 compared					
TOTAL 2004			TOTAL 2030		
RANK	**LEADING CAUSE**	**%**	**RANK**	**LEADING CAUSE**	**%**
1	Ischaemic heart disease	12.2	1.	Ischaemic heart disease	12.2
2.	Cerebrovascular disease	9.7	2.	Cerebrovascular disease	9.7
3.	Lower respiratory infections	7.0	3.	Chronic obstructive pulmonary disease	7.0
4	Chronic Obstructive pulmonary disease	5.1	4.	Lower respiratory infections	5.1
5.	Diarrhoeal diseases	3.6	**5.**	**Road traffic injuries**	**3.6**
6.	HIV/AIDS	3.5	6.	Trachea, bronchus, lung cancers	3.5
7.	Tuberculosis	2.5	7.	Diabetes mellitus	2.5
8.	Trachea, bronchus, lung cancers	2.3	8.	Hypertensive heart disease	2.3
9	**Road traffic injuries**	**2.2**	9.	Stomach cancer	2.2
10	Prematurity and low birth weight	2.0	10.	HIV/AIDS	2.0
11.	Neonatal infections and other	1.9	11.	Nephritis and nephrosis	1.9
12.	Diabetes mellitus	1.9	12.	Self-inflicted injuries	1.9
13.	Malaria	1.7	13.	Liver cancer	1.7
14.	Hypertensive heart disease1.5	1.7	14.	Colon and rectum cancer	1.7
15.	Birth asphyxia and birth trauma	1.5	15.	Oesophagus cancer	1.5
16.	Self-inflicted injuries	1.4	16.	Violence	1.4
17.	Stomach cancer	1.4	17.	Alzheimer and other dementias	1.4
18.	Cirrhosis of the liver	1.3	18.	Cirrhosis of the liver	1.3
19	Nephritis and nephrosis	1.3	19.	Breast cancer	1.3
20..	Colon and rectum cancers	1.1	20.	Tuberculosis	1.1

Source: World Health Statistics 2008 cited in Global Status Report on Road Safety: A Time for Action, WHO.

Table 12: Road Traffic Deaths by WHO Region using Reported & Modelled data				
WHO Region	**Reported Data***	**Rate per 100000 Population**	**Modelled Data***	**Rate per 100000 Population**
African Region	52302	7.2	234768	32.2
Region of the Americas	139466	15.5	142252	15.8
South East Asia Region	143977	8.4	285020	16.6
Eastern Mediterranean region	76912	14.1	175668	32.2
European Region	113346	12.8	117997	13.4
Western Pacific Region	135316	7.6	278321	15.6
Global	**661319**	**10.1**	**1234026**	**18.8**
*Adjusted for 30 day definition. *Source: Cited on page 31 of Global Status Report on Road Safety: Time for Action –World Health Organisation, 2009.*				

Table13: Modelled Road Traffic Injury Fatality Rates (per 100000 Population)* by WHO Region & Income Group				
WHO Region	**High Income**	**Middle Income**	**Low Income**	**Total**
African Region@	-	32.2	32.3	32.2
Region of the Americas#	13.4	17.3	-	15.8
South East Asia Region@	-	16.7	16.5	16.6
Eastern Mediterranean Region	28.5	35.8	27.5	32.2
European Region	7.9	19.3	12.2	13.4
Western Pacific Region	7.2	16.9	15.6	15.6
Global	**10.3**	**19.5**	**21.5**	**18.8**
* 30 day definition; @ No High Income country; # No Low Income country. *Source: Cited on page 13 of Global Status Report on Road Safety: Time for Action – World Health Organisation, 2009.*				

Box 3: Key Findings of Global Status Report on Road Safety – Time for Action

- Data from the survey conducted during 2008 indicate 0.66 million reported deaths due to road accidents while estimation as per the model used by the Global Status Report on Road Safety indicate 1.23 million deaths globally reflecting a difference of over 46%.

- Also low-income and middle-income countries indicate very high fatality rates (per 100000 persons) estimated at 21.5 and 19.5 respectively vis-à-vis 10.3 in high income countries. Among low income countries, the African region has been estimated to have the highest fatality rate of 32.3.

- Over 90% of the world's fatalities on the roads occur in low-income and middle-income counties, which have only 48% of the world's registered vehicles.

- Almost half of those who die in road traffic crashes are pedestrians, cyclists or users of motorized two-wheelers- collectively known as 'vulnerable road users' – and this proportion is higher in the poorer economies of the world.

- Speed is a key risk factor for injury among pedestrians and cyclists, and yet only 29% of counties meet basic criteria for reducing speed in urban areas, while less than 10% of counties rate the enforcement of their speed limits as effective.

- The adoption and enforcement of traffic laws appears inadequate in many counties. The development of effective enforcement of legislation is critical in reducing drink-driving and excessive speed, and in increasing the use of helmets, seat-belts and child restraints. This survey showed that fewer than half the countries have laws to address all five of these risk factors, while only 15% have laws that can be considered comprehensive in scope.

- Addressing road safety in a comprehensive manner necessitates the involvement of multiple sectors, such as heath, transport and police. Only one-third of the countries have a national road safety strategy that is endorsed by the government, that includes specific targets, and that has funding allocated for its implementation.

- Huge gaps remain in the quality and coverage of the data that countries collect and report on road traffic injuries. Underreporting of road traffic fatalities remains a big problem in many countries and the situation is even worse with regard to non-fatal injuries. Just 22% of countries had information on the extent of their road traffic injury problem, the costs incurred by their health sector or their national economies, and the data needed to monitor and evaluate interventions accurately.

Box 4 : United Nations Resolutions on Road Safety

Resolution No. 57/309 dated 22.5.2003: Global Road Safety Crisis

Noted the rapid increase in road traffic deaths, injuries and disabilities globally and the negative impact of road traffic injury on national and global economies. It also recognized the disproportionate fatality rate in developing countries. The resolution affirmed the need for a worldwide effort to raise awareness of the importance of road safety as a public policy issue. Further it urged all Governments to promulgate and to continue to enforce existing traffic laws.

Resolution No. 58/9 dated 5.11.2003: Global Road Safety Crisis

The resolution affirmed the need for a worldwide effort to raise awareness about health impact and social and economic costs of injuries caused by road traffic accidents. Emphasized the need for private sector and NGOs to participate actively in promoting road traffic safety. As per this resolution a plenary meeting of the General Assembly was held on 14th April 2004 in connection with World Health Day and the *World Report on Road Traffic Injury Prevention* launched to increase awareness at a high level of the magnitude of the road traffic injury problem. The resolution underlined the need for international cooperation to deal with issues of road safety.

Resolution No. 58/289 dated 14.4.2004: Improving Global Road Safety

It was the first major resolution following release of the World Bank- World Health Organization (WHO) joint report titled *"World Report on Road Traffic Injury Prevention"*. It took note of the recommendations contained in this report. It invited the WHO, working in close cooperation with the United Nations regional commissions, to act as a coordinator on road safety issues within the UN system. The resolution also underlined the need for further strengthening of international cooperation, taking into account the needs of developing countries, to deal with issues of road safety.

In May 2004, the WHO adopted resolution WHA 57.10 accepting the General Assembly's invitation to act as the coordinator on road safety issues within the UN system, working in close cooperation with the UN regional commissions.

Box 4: United Nations Resolutions on Road Safety (contd…)

Resolution No. 60/5 dated 26.10.2005: Improving Global Road Safety

This was the second major resolution adopted by the UN General Assembly and underlined the importance for Member States to pay particular attention to road traffic injury prevention and using the "*World Report on Road Traffic Injury Prevention"* as a framework for road safety efforts and implementing its recommendations including those related to the five main risk factors – non-use of safety belts and child restraints; non-use of helmets; drinking and driving; inappropriate and excessive speed; and lack of appropriate infrastructure. The resolution invited Member States to establish a lead agency, on a national level, on road safety and to develop national action plan to reduce road traffic injuries, by passing and enforcing legislation, conducting necessary awareness raising campaigns and putting in place appropriate methods to monitor and evaluate interventions that are implemented.

The WHO adopted resolution No. 60.22 dated 23.5.2007 entitled "Health Systems: Emergency Care Systems" which called on the WHO and Governments to adopt a variety of measures to strengthen trauma and emergency care services worldwide.

Resolution No. 62/244 dated 31.3.2008: Improving Global Road Safety

The resolution recognized the UN regional commissions and their subsidiary bodies for increasing their road safety activities and advocating for increased political commitment to road safety. It invited the WHO and the UN regional commissions, in cooperation with other partners in the United Nations Road Safety Collaboration, to promote multisectoral collaboration by organizing, when appropriate, United nations Global Road Safety Weeks, including the Global Stakeholders' Forum. The resolution reaffirmed the need for further strengthening of international cooperation, taking into account the needs of developing countries by building capacities in the field of road safety, and providing financial and technical support for their efforts. The resolution encouraged Member States to continue to strengthen their commitment to road safety, including by observing the World Day of Remembrance for Road Traffic Victims on the third Sunday in November every year.

Box 5 : Systems Approach to Road Safety

The World Report on Road Traffic Injury and Prevention (WHO, 2004) promoted a comprehensive approach to road safety which involves identifying the interactions between the road user, the vehicle and the road environment as the potential areas for intervention. This approach known as the systems approach recognizes that the human body is highly vulnerable to injury and that humans make mistakes.

A safe road traffic system is therefore one that accommodates and compensates for human vulnerability and fallibility. To adopt a systems approach necessitates the involvement and the close collaboration of a number of sectors – transport, police, health, industry, civil society, and special interest groups. Fundamental to implementing this approach is the collection of accurate data on the magnitude of road traffic crashes and on risk factors. The countries that have made the most progress in road safety are those that have adopted this comprehensive approach.

Source: Global Status Report on Road Safety (WHO, 2009)[pages5-6]

Box 6 : Some facts about causes of road accidents

Enacting and enforcing legislation on a number of risk factors for road traffic injuries and deaths is critical in influencing exposure to risk, crash occurrence, injury severity, and post crash injury outcomes. Comprehensive and clear legislation, enforced with appropriate penalties and accompanied by public awareness campaigns, has been shown to be a critical factor in reducing road traffic injuries and deaths associated with speed, drink-driving, and the non-use of occupant protection measures (helmets, seat-belts, and child restraints.

Speed and road accidents

- An increase in average speed is directly related both to the likelihood of a crash occurring and to the severity of the crash consequences.
- A 5% increase in average speed leads to an approximately 10% increase in crashes that cause injuries, and a 20% increase in fatal crashes.
- Pedestrians have a 90% chance of surviving a car crash at 30 km/hr or below, but less that a 50% chance of surviving impacts of 45 km/hr or above.
- Safe speed threshold vary according to different types of road, different types of collision and different road users, with their inherent vulnerabilities. Effective speed management needs to take these and other variables into account.
- Zones of 30 km/hr can reduce crash risk and injury severity and are recommended in areas where vulnerable road users are particularly at risk .
- Apart from reducing road traffic injuries and deaths, lowering the average traffic speed can have other positive effects on health outcomes (e.g. by reducing respiratory problems associated with car emissions).

Drinking and Driving

- Drinking and driving increases both the risk of a crash and the likelihood that death or a serious injury will result.
- The risk of involvement in a crash increases significantly above a blood alcohol concentration (BAC) of 0.04 grams per deciliter (g/dl).
- Laws which establish lower BACs (between zero and 0.02 g/dl) for young/novice drivers can lead to reductions of between 4% and 24% in the number of crashes involving young people.
- Enforcing sobriety checkpoints and random breath-testing can lead to reductions in alcohol-related crashes of about 20% and has been shown to be very cost-effective.

Source: Global Status Report on Road Safety (WHO,2009)[pages18 &21]

14. Road Traffic Accidents, Prevention and Control

14.1 Road accidents are non random events occurring due to a complex mix of number of factors which amongst others include: (a) type of road users and colliding vehicles (b) environmental/road related factors: These include visibility, road design and geometry, access control, intersections (areas of traffic conflict) provision of segregation of NMT and heavy vehicle traffic (c) vehicle related factors – visibility of vehicles, use of protective devices (helmets and seat belts) by vehicle occupants; problems with head and tail lights, mechanical failure etc. (d) nature of traffic management : use of automatic signals, traffic calming devices (e) emergency care for accident victims.

14.2 The main thrust of accident prevention and control across the world has been on **4 E's**, viz. (i) Education, (ii) Enforcement, (iii) Engineering and (iv) Environment and Emergency care of road accident victims.

14.3 **Educational approach:** It relies on dissemination of road safety awareness and regulation through media, classrooms and non-governmental organizations (NGOs). This approach takes a longer time to achieve the desired change in individual perceptions and attitudes. The WHO/World Bank Report on Road Traffic Injury prevention in the light of global experience about education has observed, "When used as a single, isolated intervention, do not deliver tangible and sustained reductions in deaths and injuries".

14.4 With a view to spread road safety awareness, the government has undertaken series of publicity measures through print, TV/Radio/slides, exhibitions, seminars and workshops. NGOs are also being encouraged to take up road safety awareness programmes. To this end, grants-in-aid are being provided. Under this scheme, the number of sanctions granted to NGOs has increased from 38 in the year 1999-2000 to 100 during 2008-09. The scheme is under review to make it more effective.

14.5 **Enforcement Approach:** Its prime emphasis is on restraining road users from undertaking behaviours which expose road users and others to risk of accidents and injuries.

The Indian Motor Vehicle Act of 1988 has Chapter 8 and portion of Chapter 13 devoted to many rules and regulations, viz. laws with regard to use of safety devices (helmets), speed limits, etc.

14.6 **Environmental & Engineering Approach:** This covers broad range of interventions to make road user safe through better road environment and safer vehicles. Safer vehicles by improving crash worthiness and safety of occupants – safety belts, airbags, laminated windshields, improving braking conditions, installing suitable lights to reduce glare; better roads through better road design, geometry and markings, traffic calming techniques, identification of accident black spots and their treatment, good visibility of roads with lighting, segregation of traffic into slow and fast moving categories.

14.7 Among the important environmental measures is better land use pattern which promotes shorter travel time and distance thus restricting demand for travel leading to reduced traffic congestion on roads. These measures are passive and one time efforts and are not dependent on actions of road users. These do not require constant monitoring and have been found to be quite effective worldwide. Their impact is easy to measure. However, these measures do require substantial resources, which developing countries may find it difficult to harness.

14.8 **Emergency accident care:** This covers organization, delivery of emergency accident care and logistic support for effective and coordinated delivery of health care to accident victims. WHO guidelines for "essential trauma care" recommend establishing achievable and affordable standards for injury care.

14.9 Road safety is essentially a multi-sectoral activity. It requires a systems approach with coordinated efforts of health, law, transport, police, insurance agencies and NGOs.

15. Recent Road Safety Initiatives by the Government of India

15.1 The various measures to reduce the risk of road accidents which are essentially preventive in nature can be classified into three broad categories:

1. Road Engineering: These are design/specification related aspects of roads and highways to enhance road safety. It is the endeavour of Government to make Road Safety an integral part of the design at planning stage. National Highway Authority of India (NHAI) is ensuring usage of road safety furniture and taken a number of steps to enhance safety of the road users.

Initiatives taken by NHAI on Safety.

(i) Safety measures are in-built in the projects during design, construction and O&M.

(a) The project designs, while meeting the safety standards, provide for various measures to enhance the road safety like segregation of local and through traffic by constructing flyovers, underpasses, bypasses, service roads, etc.; user facilities like bus/ truck layby, wayside amenities; safety features like road markings, signages, crash barriers, studs, delineators, lighting in urban areas/ bridges/ flyovers, speed retarders on cross roads at junctions, etc.; and pedestrian facilities like zebra crossings, pedestrian underpasses, foot over bridges, pedestrian guardrails, etc.

(b) During construction, it is prescribed in the conditions of contract / specifications to provide in Construction Zones - signages, barricades, delineations during day & night, etc.; to take care of safety of workers like personal protection equipment (reflective jackets, helmets, gloves, gumboots, spectacles, etc), first-aid equipments and amenities, etc.

(c) During O&M : Tow Away Vehicles for removing the breakdown/ damaged vehicles, ambulances to provide immediate medical help during golden hour to the accident victims and route patrolling vehicles to check unauthorized activities/ guide the road users. These facilities are available at every 50 km of sections in operation on an average. Ministry of Health & Family Welfare is implementing a comprehensive scheme for upgrading Trauma Care Centers along the Golden Quadrilateral GQ and North South & East West Corridors.

(ii) Wayside Amenities: 4 are in operation; 6 are under development. Further, a Consultant has been engaged to identify new potential sites for development of wayside amenities along North – South & East – West Corridors.

(iii) State-of-the-Art Advanced Traffic Management System (ATMS) comprising emergency call boxes, variable messages signs, CCTVs, traffic counters cum classifiers, etc. has been provided/ being provided on selected sections mostly under NHDP Phase V.

(iv) Road Safety Audits in 2,825 km on the completed sections and Public Education Campaigns on the Golden Quadrilateral of 5,864 km have been undertaken.

(v) One Safety Officer has been designated in each Regional Office of NHAI to oversee the safety measures during construction and O&M phases of projects.

2. Enforcement: It primarily involves implementation of statutory provisions, rules and regulation, which enhance road safety. The main statutory provisions in vogue are Motor Vehicles Act 1988 and Central Motor Vehicle Rules, 1989. The State Governments and Union Territories enforce these. The enforcement measures under the said rules/act *inter alia* include inspections at the time of licensing/issue of permits and periodical fitness, verification of vehicles for commercial use. Goods vehicles are required to be inspected for fitness every year after two years of registration of the vehicle. Norms for safety components such as safety belts, power steering, rear view mirrors, instrument panel and lighting system, etc have been notified. The Ministry of Road Transport & Highways initiatives in this regard include:

(i) **Provision of Road Safety Equipments:** Theis is a scheme for providing road safety equipments to States/ UTs for enforcement and implementation of various rules & regulations relating to road safety. Under this scheme, so far, 24 Interceptors have been sanctioned for the purpose of detection of violation of rules by the road users such as over-speeding, drunken driving, lane –jumping, dangerous driving etc. Looking at the cost of interceptors and limited funds available for this (Rs 2-2.5 crore), it was decided to review the scheme and instead of complete interceptor it was considered appropriate to modify the coverage of the scheme by procuring various low cost traffic enforcement equipments such as speed detection radar, breath analyzer etc. for supply to the States/UTs.

(ii) Amendment in the Motor Vehicle Act 1988:

A Motor Vehicles (Amendment) Bill, 2007 was introduced in the Rajya Sabha on 15.5.2007. The basic objective is to amend the provisions of the Motor Vehicles Act to enhance penalties for various traffic offences such as rash and negligent driving, drunken driving, driving at excessive speed, driving without licence, use of mobile phone while driving, etc, so as to serve as a deterrent for the drivers to follow traffic rules and maintain discipline on roads. Amendments have also been suggested to rationalize the provisions relating to payment of compensation to road accident victims. It is proposed not only to enhance the amount of compensation but also to revise it every three years, commensurating the compensation with the rising cost of living and also to expedite the claim settlement process. An element of civil liability is also proposed to be inserted in the Act by making a provision for penalty up to Rs.5,000/- by a person who drives in a rash or negligent manner and causes injury to a person or damages any property. The amount so realized shall be utilized for making payment to the road accident victims. Presently, the Ministry is in the process of reviewing the amendment proposals comprehensively vis-à-vis the provisions of similar Acts in other leading Asian countries as also to refine the provisions to meet the present day requirements of traffic regulations. A committee under the Chairmanship of Shri S. Sunder, senior fellow TERI and former Secretary (MoST) has already been set up for this purpose.

3. Educational & Training: These primarily involve spreading road safety awareness and imparting training to drivers. Some of the important initiatives undertaken in the field of training are:

a) **Refresher Training for Heavy Vehicle Drivers:** To this end, the Ministry of Road Transport & Highways' scheme titled "Two days refresher training to heavy motor vehicle drivers in unorganized sector" was envisaged to inculcate safe driving habits, to acquaint drivers with road safety regulations and upkeep of vehicles in road worthy condition. During the Ninth Plan (1997-2002) and the Tenth Plan (2002-2007) 15,740 and 1, 92,218 drivers respectively had been trained. During the year 2008-09, 70,700 drivers had been sanctioned for refresher training.

b) **Model Driving Training Schools:** Financial assistance is being given to States/UTs for setting up Model Driving Training Schools to produce well trained drivers and impart refresher courses to drivers. The main elements of the scheme are: provision of land by State/NGO; responsibility for operation of school and recurring cost by the State/NGO and technical project appraisal/supervision by Central Institute of Road Transport (CIRT), Pune. So far 13 proposals from States/NGO's have been senctioned for setting up Model Driver Training Schools in West Bengal, Assam, Karnataka, Andhra Pradesh, Kerala, Himachal Pradesh, NCT of Delhi, Uttarakhand, Orissa, Uttar Pradesh, Nagaland, Madhya Pradesh and Haryana. Out of these 13, four schools in Andhra Pradesh, NCT of Delhi, Karnataka and Nagaland have become operational. During the Eleventh Five Year Plan (2007-2012), the scheme has been revised by the Planning Commission as a Central Scheme-"Setting up of Training Institutes for Driving and Research in India".

4. Faster relief and evacuation of road accident victims: Engineering, Enforcement and Educational measures are mainly of preventive nature. However, to reduce the trauma and probability of death and disability associated with road accidents, curative measures in the nature of providing relief and evacuation to the accident victims are vital. Recognizing the vital importance of quick medical assistance and evacuation of road accident victims' two schemes have been initiated which include:

a) **National Highway Accident Relief Service Scheme (NHARSS):** The scheme provides for supply of cranes and ambulances to States/UTs/NGOs for relief, rescue and evacuation of accident victims to nearest medical aid centre and for clearing the accident site. Besides NHAI also provides ambulances at a distance of 50 Km on each of its completed stretches of National Highway under its operation and maintenance. So far 227 Ten tonne cranes and 40 small/medium size cranes were provided under this scheme. Also 437 ambulances were given to various States/NGOs.

b) **Medical Care:** During the Ninth and Tenth Five Year Plan periods, Ministry of Health & Family Welfare were operating a scheme under which financial assistance of up-to Rs.1.50 crore was being provided to the State Government Hospitals located on National Highways for upgradation and strengthening of emergency facilities. Under this scheme, 113 State Government Hospitals were provided financial assistance during Ninth and Tenth Five Year Plan. Ministry of Health & Family

Welfare have now formulated a scheme to be implemented during the Eleventh Five Year Plan under which integrated Trauma Care Centre Network is proposed to be established in the State Government Hospitals /Medical College located along the Golden Quadrilateral, North-South and East-West corridors of the National Highways by upgrading trauma care facilities in 140 identified State Government hospitals at a total cost of Rs 732.75 crore. Ministry of Road Transport and Highways will provide 140 ambulances to these identified hospitals and not to NGOs under the scheme. The Cabinet Committee on Economic Affairs have approved the scheme.

5. ROAD SAFETY AUDIT: Road Safety Audit (RSA) of select National Highways/Expressways sections on the (i)Western Transport Corridor starting from Delhi and passing through Rajasthan,Gujarat, Maharashtra, Karnataka and Tamil Nadu and (ii)part of East-West Corridor from Porbandar to Deesa covering a total length of 2,825 km has been taken up. Also Public Education Compaigns on the Golden Quadrilateral of 5,864 km have been undertaken. The specific aim for the road safety audit is that safety should be a prime post construction operative feature. The purpose of carrying out safety audit is to:

- Minimize the risk and severity of accidents on the National Highways/Expressways,
- Minimize the risk of accidents occurring on adjacent roads as a result of operation and maintenance of National Highways/Expressways,
- Recognize the importance of safety in Highway design to meet the needs and perceptions of all type of road users, and to achieve a balance safety solution thereto,
- Reduce the long term cost of scheme, bearing in mind the overall cost effective safe solutions; and
- Improve the level of awareness of safe design practices by all involved in the planning, design, construction, maintenance and operation of roads.

6. Funds for Road Safety related activities: The details of expenditure allocated and spent on road safety activities by the Ministry of Road Transport and Highways is given in Table 14. The funds allocated are utilized for implementing various schemes,viz, Awareness Campaign for Road Safety, Refresher Training to Heavy Motor Vehicle Driver, Setting up of Model Driver Training School and National Highways Accident Relief Service Scheme (NHARSS) under which cranes and ambulances are procured and provided to the State/UT Governments and NGOs for post accident care. Except in the case of "Setting up of Model Driver Training School", the funds for other activities of road safety are utilized by the Ministry of Road Transport & Highways directly. During the Tenth Five Year Plan, actual expenditure on road safety was Rs. 166.64 crore while for the Eleventh Five Year Plan (2007-2012), an amount of Rs. 448 crore has been proposed (excluding funds for the National Road Safety Board and Traffic Management Board).

Table: 14- Funds Allocated and Spent on Road Safety Activities

(Rs. Crore)

Year	Funds Allocated	Funds Spent
2004-05	39.70	34.99
2005-06	43.05	29.70
2006-07	47.00	43.25
2007-08	52.00	42.87
2008-09	73.00	54.80

Source: Road Safety Cell, Ministry of Road Transport & Highways.

Box 7:- Road Safety Funding and the Role of Insurance Industry: International Practices

All basic activities related to legislation and regulation and provision of basic road infrastructure, education, and enforcement to ensure compliance with laws and regulations are usually considered part of the basic government services and as such are financed by government revenue. Identifying and securing sustainable funding is important to improve road safety. In recent years many a countries have tapped new and innovative sources of funding. The major sources of funds include:

1. General tax revenue.
2. Specific taxes (usually traffic fines) earmarked to support spending on road safety.
3. Levies added to insurance premiums.
4. Road funds that derive their revenues from road user charges.
5. Sponsorship by private businesses.

Earmarking involves assigning a specific tax for a designated purpose. The revenue from traffic fines are sometimes earmarked in this way and used to support the costs of traffic law enforcement. Earmarking of traffic fines is uncommon. Vietnam is the only country known to allocate all of its traffic fines to road safety. The traffic police in Malaysia and the Philippines retain a portion of traffic fines. In Western Australia, one-third of red light and speed control camera fines are paid into the Road Trauma Trust Fund. Likewise, several states in the USA use traffic fines to part-fund training in law enforcement.

In case of New Zealand, the Ministry of Finance transfers about 15 percent of the overall revenues from the New Zealand **national road fund** to the Land Transport Safety Authority (LTSA) under the Ministry of Transport. The funds are used to pay for the costs of operating the LTSA (mainly educational and publicity programs) and for the costs of police road safety enforcement (about 80% of the funds received go on this). The balance of the revenues is then transferred to the road fund administration. Most of these funds are used to support road spending under the jurisdiction of Transit New Zealand (national roads) and the local authorities. Among other things, these funds are used to finance the costs of road safety engineering measures (e.g. skid resistance and treatment of hazardous locations).

Funding for road safety improvements should be shared with those who stand to gain from accident prevention measures.

In most countries, the insurance industry has traditionally limited its involvement to post accident compensation payments. A no-claims discount was most probably the only incentive or attention that motor vehicle insurance companies gave to accident prevention. This situation has proven unsustainable with many insurance companies (in developing countries) incurring excessively high claims loss ratios; i.e. the amount of money paid in accident claims compared to that collected in policy premium payments, as accident claims increase rapidly in the countries undergoing rapid motorization.

Box: 7- Road Safety Funding and the Role of Insurance Industry: International Practices ……..contd.

A number of countries have introduced legislative requirements for insurers of compulsory third party liability, to invest in road safety. Finland, the Province of Quebec in Canada, and the State of Victoria in Australia are recognized as pioneers in this respect. The large amounts of regular income that can be raised for road safety via a small levy on third party insurance premiums (TPIP) can be illustrated by some examples. The State of Victoria in Australia, by imposing a levy of 10% of TPIP (equivalent to US$21 per vehicle per year), raises US$ 56.65 million a year for investment in road safety. Finland imposes a levy of only 1% of TPIP (US$ 3.67 per vehicle per year), raises US$ 8 million per year. East European countries are also imposing levies of about 8% of TPIP.

As the insurance and premiums are related to road accident costs, it makes sense to use a part of the premiums to improve road safety and thus facilitate lower total accident and insurance costs. As the insurance premium usually reflect the individual drivers risk profile would also provide an incentive to drive safely. However, a basic requirement for this concept to be effective and accepted by the road users would be for the compulsory insurance to have no exceptions. The proceeds from a safety fee could finance coordination, information and awareness campaigns, initiatives to improve traffic safety for children and other special groups, and to strengthen other efforts when needed, e.g. traffic surveillance and management as public budgets often are far from sufficient.

The solution thus provides a guaranteed and growing (because funds increase in line with the increase in numbers of vehicles) source of funds for road safety activity. This reduces reliance on government grants or funding. All parties involved benefit from the arrangement and it becomes in everyone's interest to ensure all motorists have at least third party insurance. The experience of these countries shows that it is both possible and highly desirable to harness the potential for funding from the insurance industry and other such sources. Each of the countries discussed developed its own unique way of funding road safety activity but all recognized that the motor insurance industry has an important role to play in investing in safety.

Source: Road Safety Guidelines for the Asian and Pacific Region; Section 4.3: Road Safety Funding and the Role of the Insurance Industry, Asian Development Bank; Road Safety Management Information Note 3: Funding Global Road Safety Partnership

Box: 8-Recommendations of the Committee on Road Safety and Traffic Management relating to setting up of National Road Safety and Traffic Management Board (NRSTMB)

Creation of an apex body NRSTMB at the national level through an Act of the Parliament called the 'National Road Safety and Traffic Management Act. The NRSTMB would have regulatory as well as advisory functions.

Structure of NRSTMB: Consist of a chairperson and 3 to 5 members. Each of the members should be responsible for one or more functions pertaining to: 1. Road engineering; 2. Automobile engineering; 3. Traffic laws, operations, management and enforcement; 4. Data collection, reporting and analyses; 5. Accident related medical care etc.

The primary objective of NRSTMB would be to promote road safety and improve traffic management. It would be responsible for the following functions:

A. Road related measures – designing, setting standards and conducting audits.
B. Vehicle related measures – prescribing safety features.
C. Road Safety research – institutional linkages and training
D. Traffic laws, operations and management
E. Capacity Building
F. Road user behaviour strategies, public awareness and education.
G. Medical care and rehabilitation.
H. Other functions: to advise the central government on road safety and on the administration of the provisions relating to safety as contained in the central Motor Vehicles Act 1988 and rules there under; provide technical assistance to State Boards and other agencies engaged in road safety; liaise with institutions and agencies in areas related to road safety at the national and international level etc.

Powers: NRSTMB to set standards but also monitor their adoption and implementation. To this end, Board would empanel auditors to do spot checks and audits on national highways. For mechanically propelled vehicles the Board could monitor compliance either through the conformity of production (COP) tests carried out by the testing agencies or through auditors.

National Road Safety Fund (NRSF): A minimum of 1 % of the total proceeds of the cess on diesel and patrol should be made available to the Road Safety Fund of Centre and the States. Assistance to the States from NRSF should be released to support road safety activities provided that the States enter into agreements with the Government of India.

Set up at the State level: The legislation should also contain an enabling chapter for the States to set up Road Safety and Traffic Management Board.

Advisory Committees: There should be Advisory Committees to advise the National Boards and the State Boards on matters of policy and approach.

Annexure-I

Road Accidents,Persons Killed and Injured: 1970-2008

Sl.No.	YEAR	TOTAL NO. OF ROAD ACCIDENTS (IN NUMBERS)	TOTAL NO. OF PERSONS KILLED (IN NUMBERS)	TOTAL NO. OF PERSONS INJURED (IN NUMBERS)	POPULATION OF INDIA (IN THOUSANDS)	TOTAL NO. OF REGD. MOTOR VEHICLES (IN THOUSANDS)	ROAD LENGTHS (IN KMS)	NO. OF ACCIDENTS PER LAKH POPULATION	NO. OF ACCIDENTS PER TEN THOUSAND VEHICLES	NO. OF ACCIDENTS PER TEN THOUSAND KMS. ROADS	NO. OF PERSONS KILLED PER LAKH POPULATION	NO. OF PERSONS KILLED PER TEN THOUSAND VEHICLES	NO. OF PERSONS KILLED PER TEN THOUSAND KMS. ROADS	NO. OF PERSONS INJURED PER LAKH POPULATION	NO. OF PERSONS INJURED PER TEN THOUSAND VEHICLES	NO. OF PERSONS INJURED PER TEN THOUSAND KMS. ROADS
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
1	1970	114100	14500	70100	539000	1401	1188728	21.2	814	959.8	2.7	103.5	122.0	13.0	500	589.7
2	1980	153200	24000	109100	673000	4521	1491873	22.8	339	1026.9	3.6	53.1	160.9	16.2	241	731.3
3	1990	282600	54100	244100	835000	19152	1983867	33.8	148	1424.5	6.5	28.2	272.7	29.2	127	1230.4
4	1991	295131	56278	255000	852250	21374	2331086	34.6	138	1266.1	6.6	26.3	241.4	29.9	119	1093.9
5	1992	275541	60113	267200	869000	23507	2482289	31.7	117	1110.0	6.9	25.6	242.2	30.7	114	1076.4
6	1993	284646	60380	287800	886000	25505	2614662	32.1	112	1088.7	6.8	23.7	230.9	32.5	113	1100.7
7	1994	325864	64463	311500	904000	27660	2890950	36.0	118	1127.2	7.1	23.3	223.0	34.5	113	1077.5
8	1995	351999	70781	323200	924359	30295	2975035	38.1	116	1183.2	7.7	23.4	237.9	35.0	107	1086.4
9	1996	371204	74665	369502	941579	33786	3202515	39.4	110	1159.1	7.9	22.1	233.1	39.2	109	1153.8
10	1997	373671	76977	378361	959792	37332	3298788	38.9	100	1132.8	8.0	20.6	233.3	39.4	101	1147.0
11	1998	385018	79919	390674	978081	41368	3228356	39.4	93	1192.6	8.2	19.3	247.6	39.9	94	1210.1
12	1999	386456	81966	375051	996130	44875	3296650	38.8	86	1172.3	8.2	18.3	248.6	37.7	84	1137.7
13	2000	391449	78911	399265	1014825	48857	3316078	38.6	80	1180.5	7.8	16.2	238.0	39.3	82	1204.0
14	2001	405637	80888	405216	1033249	54991	3346667	39.3	74	1212.1	7.8	14.7	241.7	39.2	74	1210.8
15	2002	407497	84674	408711	1050640	58924	3383344	38.8	69	1204.4	8.1	14.4	250.3	38.9	69	1208.0
16	2003	406726	85998	435122	1068214	67007	3553468	38.1	61	1144.6	8.1	12.8	242.0	40.7	65	1224.5
17	2004	429910	92618	464521	1079887	72718	3621508	39.8	59	1187.1	8.6	12.7	255.7	43.0	64	1282.7
18	2005	439255	94968	465282	1101318	81502	*	39.9	54	*	8.6	11.7	*	42.2	57	*
19	2006	460920	105749	496481	1114202	89618	*	41.4	51	*	9.5	11.8	*	44.6	55	*
20	2007	479216	114444	513340	1131043	*	*	42.4	*	*	10.1	*	*	45.4	*	*
21	2008	484704	119860	523193	1144734	*	*	42.3	*	*	10.5	*	*	45.7	*	*

*Being compiled

Annexure - I A

Total Number of Road Accidents in States/UTs in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	37131	43559	44325	42657
2	Arunachal Pradesh	231	250	240	280
3	Assam	4258	4694	4403	4683
4	Bihar	3768	5594	7774	8991
5	Chhattisgarh	11164	11934	12296	12945
6	Goa	3577	3707	4020	4178
7	Gujarat	30515	31547	33623	33671
8	Haryana	9298	10314	11998	11596
9	Himachal Pradesh	2797	2727	2955	2756
10	Jammu & Kashmir	5664	5593	5864	5326
11	Jharkhand	5013	4980	5285	4985
12	Karnataka	40330	43411	46363	46279
13	Kerala	42295	41728	39917	37263
14	Madhya Pradesh	35123	38041	41981	43852
15	Maharashtra	72408	75413	73661	75527
16	Manipur	600	521	538	573
17	Meghalaya	428	435	300	294
18	Mizoram	96	95	77	110
19	Nagaland	226	194	239	76
20	Orissa	7593	7729	8213	8181
21	Punjab	4599	4927	5208	5115
22	Rajasthan	23115	23348	23885	23704
23	Sikkim	189	188	150	196
24	Tamil Nadu	53866	55145	59140	60409
25	Tripura	657	793	801	767
26	Uttarakhand	1332	1461	1529	1417
27	Uttar Pradesh	18325	19489	21522	25684
28	West Bengal	12597	11324	11660	12206
	UTs				
1	Andaman & Nicobar Islands	205	154	173	191
2	Chandigarh	530	517	534	482
3	Dadra & Nagar Haveli	127	103	116	116
4	Daman & Diu	62	57	60	50
5	Delhi	9351	9299	8620	8435
6	Lakshadweep	5	10	2	12
7	Puducherry	1780	1639	1744	1697
	Total	**439255**	**460920**	**479216**	484704

(P) : Provisional

Share of States/UTs in Total Number of Road Accidents, 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	8.5	9.5	9.2	8.8
2	Arunachal Pradesh	0.1	0.1	0.1	0.1
3	Assam	1.0	1.0	0.9	1.0
4	Bihar	0.9	1.2	1.6	1.9
5	Chhattisgarh	2.5	2.6	2.6	2.7
6	Goa	0.8	0.8	0.8	0.9
7	Gujarat	6.9	6.8	7.0	6.9
8	Haryana	2.1	2.2	2.5	2.4
9	Himachal Pradesh	0.6	0.6	0.6	0.6
10	Jammu & Kashmir	1.3	1.2	1.2	1.1
11	Jharkhand	1.1	1.1	1.1	1.0
12	Karnataka	9.2	9.4	9.7	9.5
13	Kerala	9.6	9.1	8.3	7.7
14	Madhya Pradesh	8.0	8.3	8.8	9.0
15	Maharashtra	16.5	16.4	15.4	15.6
16	Manipur	0.1	0.1	0.1	0.1
17	Meghalaya	0.1	0.1	0.1	0.1
18	Mizoram	0.0	0.0	0.0	0.0
19	Nagaland	0.1	0.0	0.0	0.0
20	Orissa	1.7	1.7	1.7	1.7
21	Punjab	1.0	1.1	1.1	1.1
22	Rajasthan	5.3	5.1	5.0	4.9
23	Sikkim	0.0	0.0	0.0	0.0
24	Tamil Nadu	12.3	12.0	12.3	12.5
25	Tripura	0.1	0.2	0.2	0.2
26	Uttarakhand	0.3	0.3	0.3	0.3
27	Uttar Pradesh	4.2	4.2	4.5	5.3
28	West Bengal	2.9	2.5	2.4	2.5
	UTs				
1	Andaman & Nicobar Islands	0.0	0.0	0.0	0.0
2	Chandigarh	0.1	0.1	0.1	0.1
3	Dadra & Nagar Haveli	0.0	0.0	0.0	0.0
4	Daman & Diu	0.0	0.0	0.0	0.0
5	Delhi	2.1	2.0	1.8	1.7
6	Lakshadweep	0.0	0.0	0.0	0.0
7	Puducherry	0.4	0.4	0.4	0.4
	Total	**100**	**100**	**100**	**100**

(P) : Provisional

Total Number of Persons Injured in Road Accidents in States/UTs in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	46613	58520	59213	58741
2	Arunachal Pradesh	330	361	488	425
3	Assam	5540	5435	5697	5081
4	Bihar	2559	3578	5971	6359
5	Chhattisgarh	10378	11208	11735	12873
6	Goa	2714	2931	3128	3167
7	Gujarat	34901	33984	35768	35722
8	Haryana	8773	9118	10288	10570
9	Himachal Pradesh	4507	4879	5332	4714
10	Jammu & Kashmir	8315	8219	7920	7597
11	Jharkhand	3520	3707	4369	4373
12	Karnataka	54061	60940	61438	63314
13	Kerala	51217	49799	48246	43857
14	Madhya Pradesh	39719	42639	45225	51054
15	Maharashtra	40838	51024	47342	52780
16	Manipur	1335	1020	1044	1216
17	Meghalaya	543	379	357	355
18	Mizoram	127	149	65	185
19	Nagaland	307	275	189	245
20	Orissa	10160	9763	11305	10378
21	Punjab	4131	4307	4430	4196
22	Rajasthan	29986	29434	31151	30857
23	Sikkim	436	391	272	246
24	Tamil Nadu	62006	64342	71099	70251
25	Tripura	1067	1368	1329	1494
26	Uttarakhand	1841	1910	1979	1765
27	Uttar Pradesh	12883	13650	14464	18056
28	West Bengal	15111	12257	13014	13246
	UTs				
1	Andaman & Nicobar Islands	329	222	313	256
2	Chandigarh	553	525	530	437
3	Dadra & Nagar Haveli	115	114	94	120
4	Daman & Diu	72	53	63	58
5	Delhi	8447	8280	7711	7343
6	Lakshadweep	5	7	2	7
7	Puducherry	1843	1693	1769	1855
	Total	**465282**	**496481**	**513340**	**523193**

(P) : Provisional

Annexure-I B

Share of States/ UTs in Total Number of Persons Injured in Road Accidents, 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	10.0	11.8	11.5	11.2
2	Arunachal Pradesh	0.1	0.1	0.1	0.1
3	Assam	1.2	1.1	1.1	1.0
4	Bihar	0.5	0.7	1.2	1.2
5	Chhattisgarh	2.2	2.3	2.3	2.5
6	Goa	0.6	0.6	0.6	0.6
7	Gujarat	7.5	6.8	7.0	6.8
8	Haryana	1.9	1.8	2.0	2.0
9	Himachal Pradesh	1.0	1.0	1.0	0.9
10	Jammu & Kashmir	1.8	1.7	1.5	1.5
11	Jharkhand	0.8	0.7	0.9	0.8
12	Karnataka	11.6	12.3	12.0	12.1
13	Kerala	11.0	10.0	9.4	8.4
14	Madhya Pradesh	8.5	8.6	8.8	9.8
15	Maharashtra	8.8	10.3	9.2	10.1
16	Manipur	0.3	0.2	0.2	0.2
17	Meghalaya	0.1	0.1	0.1	0.1
18	Mizoram	0.0	0.0	0.0	0.0
19	Nagaland	0.1	0.1	0.0	0.0
20	Orissa	2.2	2.0	2.2	2.0
21	Punjab	0.9	0.9	0.9	0.8
22	Rajasthan	6.4	5.9	6.1	5.9
23	Sikkim	0.1	0.1	0.1	0.0
24	Tamil Nadu	13.3	13.0	13.9	13.4
25	Tripura	0.2	0.3	0.3	0.3
26	Uttarakhand	0.4	0.4	0.4	0.3
27	Uttar Pradesh	2.8	2.7	2.8	3.5
28	West Bengal	3.2	2.5	2.5	2.5
	UTs				
1	Andaman & Nicobar Islands	0.1	0.0	0.1	0.0
2	Chandigarh	0.1	0.1	0.1	0.1
3	Dadra & Nagar Haveli	0.0	0.0	0.0	0.0
4	Daman & Diu	0.0	0.0	0.0	0.0
5	Delhi	1.8	1.7	1.5	1.4
6	Lakshadweep	0.0	0.0	0.0	0.0
7	Puducherry	0.4	0.3	0.3	0.4
	Total	**100**	**100**	**100**	**100**

(P) : Provisional

Annexure-I C

Total Number of Persons Killed in Road Accident in States/UTs in 2005 to 2007

Sl. No.	State	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	10534	12761	13549	13812
2	Arunachal Pradesh	87	129	95	134
3	Assam	1544	1841	1604	1807
4	Bihar	1588	2396	3482	3940
5	Chhattisgarh	2258	2374	2607	2966
6	Goa	242	303	322	318
7	Gujarat	5642	6161	6915	7070
8	Haryana	3379	4012	4415	4494
9	Himachal Pradesh	812	867	979	848
10	Jammu & Kashmir	884	989	958	950
11	Jharkhand	1919	1914	2081	1979
12	Karnataka	6904	7973	8777	8814
13	Kerala	3161	3627	3778	3901
14	Madhya Pradesh	5327	5318	6671	6670
15	Maharashtra	10259	11343	11212	12397
16	Manipur	137	159	114	151
17	Meghalaya	126	165	127	123
18	Mizoram	59	64	50	63
19	Nagaland	52	68	89	70
20	Orissa	2549	2755	3000	3079
21	Punjab	2793	3052	3363	3206
22	Rajasthan	6793	7154	8145	8388
23	Sikkim	77	70	52	79
24	Tamil Nadu	9758	11009	12036	12784
25	Tripura	209	196	223	221
26	Uttarakhand	868	975	992	1073
27	Uttar Pradesh	9955	10851	11398	13165
28	West Bengal	4727	4600	4745	4789
	UTs				
1	Andaman & Nicobar Islands	23	22	23	22
2	Chandigarh	135	142	151	148
3	Dadra & Nagar Haveli	55	45	66	65
4	Daman & Diu	24	27	29	29
5	Delhi	1862	2169	2141	2093
6	Lakshadweep	0	1	0	0
7	Puducherry	226	217	255	212
	Total	**94968**	**105749**	**114444**	**119860**

(P) : Provisional

Share of States/UTs in Total Number of Persons Killed in Road Accidents, 2005 to 2007

Sl. No.	State	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	11.1	12.1	11.8	11.5
2	Arunachal Pradesh	0.1	0.1	0.1	0.1
3	Assam	1.6	1.7	1.4	1.5
4	Bihar	1.7	2.3	3.0	3.3
5	Chhattisgarh	2.4	2.2	2.3	2.5
6	Goa	0.3	0.3	0.3	0.3
7	Gujarat	5.9	5.8	6.0	5.9
8	Haryana	3.6	3.8	3.9	3.7
9	Himachal Pradesh	0.9	0.8	0.9	0.7
10	Jammu & Kashmir	0.9	0.9	0.8	0.8
11	Jharkhand	2.0	1.8	1.8	1.7
12	Karnataka	7.3	7.5	7.7	7.4
13	Kerala	3.3	3.4	3.3	3.3
14	Madhya Pradesh	5.6	5.0	5.8	5.6
15	Maharashtra	10.8	10.7	9.8	10.3
16	Manipur	0.1	0.2	0.1	0.1
17	Meghalaya	0.1	0.2	0.1	0.1
18	Mizoram	0.1	0.1	0.0	0.1
19	Nagaland	0.1	0.1	0.1	0.1
20	Orissa	2.7	2.6	2.6	2.6
21	Punjab	2.9	2.9	2.9	2.7
22	Rajasthan	7.2	6.8	7.1	7.0
23	Sikkim	0.1	0.1	0.0	0.1
24	Tamil Nadu	10.3	10.4	10.5	10.7
25	Tripura	0.2	0.2	0.2	0.2
26	Uttarakhand	0.9	0.9	0.9	0.9
27	Uttar Pradesh	10.5	10.3	10.0	11.0
28	West Bengal	5.0	4.3	4.1	4.0
	UTs				
1	Andaman & Nicobar Islands	0.0	0.0	0.0	0.0
2	Chandigarh	0.1	0.1	0.1	0.1
3	Dadra & Nagar Haveli	0.1	0.0	0.1	0.1
4	Daman & Diu	0.0	0.0	0.0	0.0
5	Delhi	2.0	2.1	1.9	1.7
6	Lakshadweep	0.0	0.0	0.0	0.0
7	Puducherry	0.2	0.2	0.2	0.2
	Total	**100**	**100**	**100**	**100**

(P) : Provisional

Annexure-II A

Total Number of Road Accidents and Number of Road Accidents per one lakh population & ten thousand vehicles in States/UTs in 2005 to 2008

Sl. No	States/UTs	Total Road Accidents				Road Accidents per lakh population				Road Accidents per ten thousand vehicles	
		2005	2006	2007	2008(P)	2005	2006	2007	2008(P)	2005	2006(P)
1	2	3	4	5	6	7	8	9	10	11	12
	States										
1	Andhra Pradesh	37131	43559	44325	42657	46.3	54.2	54.5	51.8	57.5	60.3
2	Arunachal Pradesh	231	250	240	280	19.9	21.4	20.3	23.4	105.8	113.1
3	Assam	4258	4694	4403	4683	15.0	16.2	14.9	15.9	52.2	51.4
4	Bihar	3768	5594	7774	8991	4.2	6.2	8.4	9.6	27.9	39.1
5	Chhattisgarh	11164	11934	12296	12945	49.9	52.2	52.9	55.6	81.2	77.5
6	Goa	3577	3707	4020	4178	244.5	241.3	254.3	261.8	74.2	70.1
7	Gujarat	30515	31547	33623	33671	56.1	57.6	60.5	59.5	39.0	36.6
8	Haryana	9298	10314	11998	11596	40.4	44.8	51.3	48.0	32.6	33.4
9	Himachal Pradesh	2797	2727	2955	2756	43.6	42.4	45.5	41.8	93.0	81.8
10	Jammu & Kashmir	5664	5593	5864	5326	52.3	48.2	49.0	47.3	118.5	106.8
11	Jharkhand	5013	4980	5285	4985	17.3	17.1	17.9	16.5	36.9	33.1
12	Karnataka	40330	43411	46363	46279	72.2	77.3	81.7	80.4	74.2	69.8
13	Kerala	42295	41728	39917	37263	127.8	124.3	117.7	110.2	135.5	117.3
14	Madhya Pradesh	35123	38041	41981	43852	53.5	56.9	61.7	63.8	83.9	82.5
15	Maharashtra	72408	75413	73661	75527	69.8	72.4	69.8	70.0	72.9	68.8
16	Manipur	600	521	538	573	26.2	20.3	20.7	24.2	52.4	42.0
17	Meghalaya	428	435	300	294	17.5	17.6	12.0	11.6	46.5	41.8
18	Mizoram	96	95	77	110	10.2	9.9	8.0	11.3	20.6	18.3
19	Nagaland	226	194	239	76	10.8	9.1	11.1	3.5	13.1	10.6
20	Orissa	7593	7729	8213	8181	19.7	19.8	20.8	20.6	44.3	40.0
21	Punjab	4599	4927	5208	5115	17.8	19.0	19.8	19.1	11.9	12.2
22	Rajasthan	23115	23348	23885	23704	37.6	37.4	37.6	36.7	54.3	49.1
23	Sikkim	189	188	150	196	33.1	32.4	25.6	33.2	96.7	85.4
24	Tamil Nadu	53866	55145	59140	60409	83.1	84.5	89.8	91.4	58.2	54.8
25	Tripura	657	793	801	767	19.4	23.2	23.1	22.0	90.3	75.0
26	Uttarakhand	1332	1461	1529	1417	14.6	15.9	16.3	14.9	23.2	22.7
27	Uttar Pradesh	18325	19489	21522	25684	10.1	10.6	11.5	13.5	25.0	24.4
28	West Bengal	12597	11324	11660	12206	14.9	13.2	13.4	14.0	47.0	39.4
	UTs										
1	Andaman & Nicobar Isl	205	154	173	191	50.0	39.1	42.9	42.5	55.1	37.7
2	Chandigarh	530	517	534	482	49.7	51.0	51.5	39.3	8.6	8.0
3	Dadra & Nagar Haveli	127	103	116	116	49.4	41.5	45.5	38.8	31.8	23.1
4	Daman & Diu	62	57	60	50	29.7	31.8	32.8	21.0	12.3	10.3
5	Delhi	9351	9299	8620	8435	59.5	57.9	52.0	49.7	22.3	20.7
6	Lakshadweep	5	10	2	12	7.0	15.2	3.0	16.2	10.1	16.0
7	Puducherry	1780	1639	1744	1697	166.4	157.4	164.8	140.9	51.3	42.7
	Total	**439255**	**460920**	**479216**	484704	**39.9**	41.4	**42.4**	**42.3**	**53.9**	**51.4**

P: Provisional , * Exludes 9.5 lakh km. of roads under PMGS Yojana and JR Yojana.

Annexure-II B

Total Number of Persons Injured in Road Accident and Persons Injured per lakh of population & ten thousand vehicles in States/UTs in 2005 to 2008

Sl. No.	States/UTs	Total Number of Persons Injured				No. of Persons Injured Per Lakh of Population				No. of Persons Injured Per Ten Thousand Vehicles	
		2005	2006	2007	2008(P)	2005	2006	2007	2008(P)	2005	2006(P)
1	2	3	4	5	6	7	8	9	10	11	12
	States										
1	Andhra Pradesh	46613	58520	59213	58741	58.2	72.8	72.8	71.3	72.2	81.1
2	Arunachal Pradesh	330	361	488	425	28.4	30.9	41.2	35.5	151.2	163.3
3	Assam	5540	5435	5697	5081	19.5	18.7	19.3	17.3	68.0	59.5
4	Bihar	2559	3578	5971	6359	2.9	3.9	6.5	6.8	18.9	25.0
5	Chhattisgarh	10378	11208	11735	12873	46.4	49.0	50.5	55.3	75.5	72.7
6	Goa	2714	2931	3128	3167	185.5	190.8	197.8	198.4	56.3	55.4
7	Gujarat	34901	33984	35768	35722	64.1	62.0	64.3	63.1	44.6	39.4
8	Haryana	8773	9118	10288	10570	38.1	39.6	43.9	43.7	30.7	29.5
9	Himachal Pradesh	4507	4879	5332	4714	70.3	75.9	82.2	71.5	149.8	146.3
10	Jammu & Kashmir	8315	8219	7920	7597	76.7	70.8	66.1	67.5	174.0	157.0
11	Jharkhand	3520	3707	4369	4373	12.1	12.7	14.8	14.5	25.9	24.6
12	Karnataka	54061	60940	61438	63314	96.8	108.6	108.2	110.0	99.5	98.0
13	Kerala	51217	49799	48246	43857	154.8	148.3	142.3	129.7	164.0	139.9
14	Madhya Pradesh	39719	42639	45225	51054	60.5	63.8	66.5	74.3	94.8	92.5
15	Maharashtra	40838	51024	47342	52780	39.4	49.0	44.9	48.9	41.1	46.5
16	Manipur	1335	1020	1044	1216	58.3	39.8	40.2	51.4	116.6	82.2
17	Meghalaya	543	379	357	355	22.2	15.3	14.3	14.0	58.9	36.4
18	Mizoram	127	149	65	185	13.5	15.6	6.7	19.1	27.3	28.7
19	Nagaland	307	275	189	245	14.6	12.9	8.8	11.3	17.8	15.0
20	Orissa	10160	9763	11305	10378	26.3	25.0	28.6	26.2	59.2	50.5
21	Punjab	4131	4307	4430	4196	16.0	16.6	16.9	15.7	10.7	10.7
22	Rajasthan	29986	29434	31151	30857	48.7	47.1	49.0	47.8	70.4	61.9
23	Sikkim	436	391	272	246	76.4	67.4	46.3	41.6	223.1	177.6
24	Tamil Nadu	62006	64342	71099	70251	95.7	98.6	108.0	106.3	67.0	64.0
25	Tripura	1067	1368	1329	1494	31.6	40.0	38.3	42.8	146.7	129.3
26	Uttarakhand	1841	1910	1979	1765	20.2	20.7	21.1	18.6	32.1	29.7
27	Uttar Pradesh	12883	13650	14464	18056	7.1	7.4	7.7	9.5	17.5	17.1
28	West Bengal	15111	12257	13014	13246	17.9	14.3	15.0	15.2	56.4	42.7
	UTs										
1	Andaman & Nicobar Islands	329	222	313	256	80.2	56.3	77.7	57.0	88.4	54.4
2	Chandigarh	553	525	530	437	51.8	51.8	51.1	35.6	9.0	8.1
3	Dadra & Nagar Haveli	115	114	94	120	44.7	46.0	36.9	40.1	28.8	25.5
4	Daman & Diu	72	53	63	58	34.4	29.6	34.4	24.4	14.2	9.6
5	Delhi	8447	8280	7711	7343	53.7	51.5	46.6	43.3	20.2	18.5
6	Lakshadweep	5	7	2	7	7.0	10.6	3.0	9.5	10.1	11.2
7	Puducherry	1843	1693	1769	1855	172.2	162.6	167.2	154.1	53.1	44.1
	Total	**465282**	**496481**	**513340**	**523193**	**42.2**	**44.6**	**45.4**	45.7	**57.1**	**55.4**

P: Provisional, * Excludes 9.5 lakh km. of roads under PMGS Yojana and JR Yojana.

Annexure-II C

Total Number of Persons Killed in Road Accident and Persons Killed per lakh of population & per ten thousand vehicles in States/UTs in 2005 to 2008

Sl. No.	States/UTs	Number of Persons Killed				Number of Persons Killed Per Lakh Population				Number of Persons Killed per ten thousand Vehicles	
		2005	2006	2007	2008(P)	2005	2006	2007	2008(P)	2005	2006(P)
1	2	3	4	5	6	7	8	9	10	11	12
	States										
1	Andhra Pradesh	10534	12761	13549	13812	13.1	15.9	16.7	16.8	16.3	17.7
2	Arunachal Pradesh	87	129	95	134	7.5	11.0	8.0	11.2	39.9	58.4
3	Assam	1544	1841	1604	1807	5.4	6.3	5.4	6.1	18.9	20.1
4	Bihar	1588	2396	3482	3940	1.8	2.6	3.8	4.2	11.7	16.7
5	Chhattisgarh	2258	2374	2607	2966	10.1	10.4	11.2	12.7	16.4	15.4
6	Goa	242	303	322	318	16.5	19.7	20.4	19.9	5.0	5.7
7	Gujarat	5642	6161	6915	7070	10.4	11.2	12.4	12.5	7.2	7.1
8	Haryana	3379	4012	4415	4494	14.7	17.4	18.9	18.6	11.8	13.0
9	Himachal Pradesh	812	867	979	848	12.7	13.5	15.1	12.9	27.0	26.0
10	Jammu & Kashmir	884	989	958	950	8.2	8.5	8.0	8.4	18.5	18.9
11	Jharkhand	1919	1914	2081	1979	6.6	6.6	7.0	6.6	14.1	12.7
12	Karnataka	6904	7973	8777	8814	12.4	14.2	15.5	15.3	12.7	12.8
13	Kerala	3161	3627	3778	3901	9.6	10.8	11.1	11.5	10.1	10.2
14	Madhya Pradesh	5327	5318	6671	6670	8.1	8.0	9.8	9.7	12.7	11.5
15	Maharashtra	10259	11343	11212	12397	9.9	10.9	10.6	11.5	10.3	10.3
16	Manipur	137	159	114	151	6.0	6.2	4.4	6.4	12.0	12.8
17	Meghalaya	126	165	127	123	5.1	6.7	5.1	4.9	13.7	15.8
18	Mizoram	59	64	50	63	6.3	6.7	5.2	6.5	12.7	12.3
19	Nagaland	52	68	89	70	2.5	3.2	4.1	3.2	3.0	3.7
20	Orissa	2549	2755	3000	3079	6.6	7.1	7.6	7.8	14.9	14.3
21	Punjab	2793	3052	3363	3206	10.8	11.7	12.8	12.0	7.2	7.6
22	Rajasthan	6793	7154	8145	8388	11.0	11.5	12.8	13.0	15.9	15.0
23	Sikkim	77	70	52	79	13.5	12.1	8.9	13.4	39.4	31.8
24	Tamil Nadu	9758	11009	12036	12784	15.1	16.9	18.3	19.3	10.5	10.9
25	Tripura	209	196	223	221	6.2	5.7	6.4	6.3	28.7	18.5
26	Uttarakhand	868	975	992	1073	9.5	10.6	10.6	11.3	15.1	15.2
27	Uttar Pradesh	9955	10851	11398	13165	5.5	5.9	6.1	6.9	13.6	13.6
28	West Bengal	4727	4600	4745	4789	5.6	5.4	5.5	5.5	17.6	16.0
	UTs										
1	Andaman & Nicobar Islands	23	22	23	22	5.6	5.6	5.7	4.9	6.2	5.4
2	Chandigarh	135	142	151	148	12.7	14.0	14.6	12.1	2.2	2.2
3	Dadra & Nagar Haveli	55	45	66	65	21.4	18.1	25.9	21.7	13.8	10.1
4	Daman & Diu	24	27	29	29	11.5	15.1	15.8	12.2	4.7	4.9
5	Delhi	1862	2169	2141	2093	11.8	13.5	12.9	12.3	4.4	4.8
6	Lakshadweep	0	1	0	0	0.0	1.5	0.0	0.0	0.0	1.6
7	Puducherry	226	217	255	212	21.1	20.8	24.1	17.6	6.5	5.6
	Total	**94968**	**105749**	**114444**	**119860**	**8.6**	**9.5**	**10.1**	**10.5**	**11.7**	**11.8**

P: Provisional, * Excludes 9.5 lakh km. of roads under PMGS Yojana and JR Yojana

Annexure-III A

Total Number of Road Accidents on National Highways* and length of National Highways in 2005 to 2008

Sl. No.	States/UTs	Total Number of Road Accidents as on 31st December				Length of National Highways as on 31st March (in km)			
		2005	2006	2007	2008(P)	2005	2006	2007	2008
1	2	3	4	5	6	7	8	9	10
	States								
1	Andhra Pradesh	9799	15188	13040	12327	4472	4472	4472	4472
2	Arunachal Pradesh	17	109	67	101	392	392	392	1992
3	Assam	2533	2758	2334	2683	2836	2836	2836	2836
4	Bihar	1688	2695	3159	3862	3537	3537	3642	3642
5	Chhattisgarh	4167	4608	3421	4001	2184	2184	2184	2184
6	Goa	1254	1225	1398	1593	269	269	269	269
7	Gujarat	7846	7030	7253	7025	2871	2871	3245	3245
8	Haryana	3217	3492	4042	3990	1468	1468	1512	1512
9	Himachal Pradesh	1178	1086	1947	1080	1208	1208	1208	1409
10	Jammu & Kashmir	2035	2013	2385	2365	823	823	1245	1245
11	Jharkhand	1739	1849	1718	1860	1805	1805	1805	1805
12	Karnataka	13106	13212	13310	12949	3843	3843	3843	3843
13	Kerala	11585	10619	11000	9997	1440	1440	1440	1457
14	Madhya Pradesh	6420	11216	10468	10359	5200	5200	4670	4670
15	Maharashtra	13643	14448	13563	13866	4176	4176	4176	4176
16	Manipur	391	310	307	292	959	959	959	959
17	Meghalaya	244	294	153	186	810	810	810	810
18	Mizoram	43	32	23	58	927	927	927	927
19	Nagaland	90	98	121	36	494	494	494	494
20	Orissa	3305	3589	3699	3635	3704	3704	3704	3704
21	Punjab	1884	1811	2240	1903	1557	1557	1557	1557
22	Rajasthan	7728	7960	8218	7811	5585	5585	5585	5585
23	Sikkim	41	51	38	47	62	62	62	62
24	Tamil Nadu	17695	17763	19910	19158	4183	4183	4462	4628
25	Tripura	307	383	445	270	400	400	400	400
26	Uttarakhand	623	647	788	818	1991	1991	5874	5874
27	Uttar Pradesh	9156	7892	8105	9795	5599	5599	1991	2042
28	West Bengal	6296	5082	4343	4621	2325	2325	2377	2578
	UTs								
1	Andaman & Nicobar Islands	15	0	0	37	300	300	300	300
2	Chandigarh	67	86	99	89	24	24	24	24
3	Dadra & Nagar Haveli	0	0	0	0	0	0	0	0
4	Daman & Diu	0	0	0	0	0	0	0	0
5	Delhi	1057	1826	956	875	72	72	72	72
6	Lakshadweep	0	0	0	0	0	0	0	0
7	Puducherry	825	786	372	306	53	53	53	53
	Total	**129994**	**140158**	**138922**	**137995**	**65569**	**65569**	**66590**	**68826**

* Includes Expressways

Annexure- III B

Total Number of Persons Killed in Road Accidents on National Highways* in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	3284	5034	4370	4172
2	Arunachal Pradesh	7	55	23	28
3	Assam	1041	1199	983	1245
4	Bihar	749	1198	1555	1868
5	Chhattisgarh	814	749	790	1002
6	Goa	112	113	143	134
7	Gujarat	1474	1661	1812	1857
8	Haryana	1309	1615	1765	1775
9	Himachal Pradesh	296	354	585	258
10	Jammu & Kashmir	306	377	404	487
11	Jharkhand	847	592	746	882
12	Karnataka	2467	2828	2921	2838
13	Kerala	1216	1309	1453	1403
14	Madhya Pradesh	1005	1697	1857	1909
15	Maharashtra	3193	3567	3148	3662
16	Manipur	102	100	63	81
17	Meghalaya	73	110	77	73
18	Mizoram	19	22	12	35
19	Nagaland	18	40	49	31
20	Orissa	1051	1322	1389	1472
21	Punjab	1217	1140	1346	1149
22	Rajasthan	2734	3028	3059	3495
23	Sikkim	16	20	12	15
24	Tamil Nadu	3659	3982	4430	4417
25	Tripura	103	92	124	65
26	Uttarakhand	492	510	504	634
27	Uttar Pradesh	5040	4492	4580	5210
28	West Bengal	2365	1951	2026	2115
	UTs				
1	Andaman & Nicobar Islands	0	0	0	6
2	Chandigarh	28	29	45	36
3	Dadra & Nagar Haveli	…	0	0	0
4	Daman & Diu	0	0	0	0
5	Delhi	274	518	286	278
6	Lakshadweep	…	0	0	0
7	Puducherry	128	116	55	38
	Total	**35439**	**39820**	**40612**	**42670**

(P): Provisional

*: Includes Expressways

Annexure- III C

Total Number of Persons Injured in Road Accidents on National Highways* in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	13787	19494	17263	15600
2	Arunachal Pradesh	36	136	110	128
3	Assam	3285	3143	3351	2840
4	Bihar	951	1630	2306	2520
5	Chhattisgarh	3778	2620	3058	3850
6	Goa	879	1028	1179	1263
7	Gujarat	7173	7051	7445	7239
8	Haryana	3051	3171	3571	3701
9	Himachal Pradesh	1891	1925	2955	1697
10	Jammu & Kashmir	2915	3346	4390	3112
11	Jharkhand	1032	1083	898	609
12	Karnataka	17697	17334	16704	17682
13	Kerala	12954	12162	13369	12104
14	Madhya Pradesh	6327	12294	10706	11566
15	Maharashtra	11186	13613	11440	13061
16	Manipur	966	609	582	614
17	Meghalaya	403	182	258	256
18	Mizoram	31	40	18	125
19	Nagaland	99	130	99	153
20	Orissa	4294	4235	5082	4296
21	Punjab	1805	1372	1828	1156
22	Rajasthan	10258	9999	10240	10273
23	Sikkim	106	68	40	36
24	Tamil Nadu	23720	21173	24330	22059
25	Tripura	552	677	760	511
26	Uttarakhand	836	877	1045	896
27	Uttar Pradesh	6219	5552	5939	6820
28	West Bengal	7555	5287	4607	4400
	UTs				
1	Andaman & Nicobar Islands	33	27	0	55
2	Chandigarh	53	98	132	83
3	Dadra & Nagar Haveli	…	0	0	0
4	Daman & Diu	0	0	0	0
5	Delhi	895	1566	800	697
6	Lakshadweep	0	0	0	0
7	Puducherry	815	885	375	291
	Total	**145582**	**152807**	**154880**	**149693**

(P): Provisional

*: Includes Expressways

Annexure- IV A

Total Number of Road Accidents on State Highways in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	10026	10953	9979	10634
2	Arunachal Pradesh	111	82	88	115
3	Assam	947	946	1010	849
4	Bihar	1076	1702	1971	1499
5	Chhattisgarh	3543	3356	3265	3814
6	Goa	400	421	536	610
7	Gujarat	10133	9071	9630	10167
8	Haryana	2917	3202	3752	3611
9	Himachal Pradesh	787	792	845	597
10	Jammu & Kashmir	1060	1286	745	971
11	Jharkhand	1580	1438	1766	968
12	Karnataka	8062	10004	15034	15723
13	Kerala	7669	5444	7215	6452
14	Madhya Pradesh	9454	12115	10645	9875
15	Maharashtra	11831	11957	13402	13307
16	Manipur	100	111	137	173
17	Meghalaya	105	109	79	79
18	Mizoram	9	26	36	31
19	Nagaland	77	54	58	19
20	Orissa	1466	2088	2198	1964
21	Punjab	1147	1434	1047	1497
22	Rajasthan	2380	2175	2870	2581
23	Sikkim	101	34	26	36
24	Tamil Nadu	17042	17013	17848	24912
25	Tripura	73	211	306	438
26	Uttarakhand	416	464	335	269
27	Uttar Pradesh	4975	5961	7396	8130
28	West Bengal	5040	3591	3170	3237
	UTs				
1	Andaman & Nicobar Islands	0	0	0	0
2	Chandigarh	0	0	0	100
3	Dadra & Nagar Haveli	0	0	0	0
4	Daman & Diu	0	0	0	0
5	Delhi	1300	1592	1133	919
6	Lakshadweep	0	0	0	0
7	Puducherry	0	0	386	395
	Total	**103827**	**107632**	**116908**	**123972**

(P): Provisional

Annexure- IV B

Total Number of Persons Killed on State Highways in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	3208	3399	3345	3742
2	Arunachal Pradesh	38	43	38	78
3	Assam	274	293	315	276
4	Bihar	385	709	814	962
5	Chhattisgarh	650	577	726	862
6	Goa	17	40	47	49
7	Gujarat	2026	2105	2575	2539
8	Haryana	1168	1375	1525	1550
9	Himachal Pradesh	201	213	338	157
10	Jammu & Kashmir	165	238	125	141
11	Jharkhand	563	473	679	376
12	Karnataka	1571	1963	2885	3000
13	Kerala	651	489	778	767
14	Madhya Pradesh	1719	1534	1789	1628
15	Maharashtra	2972	3389	3971	4056
16	Manipur	12	25	30	49
17	Meghalaya	32	33	34	34
18	Mizoram	5	13	25	20
19	Nagaland	11	19	19	18
20	Orissa	538	710	803	625
21	Punjab	659	780	747	846
22	Rajasthan	842	774	1077	1035
23	Sikkim	40	8	8	12
24	Tamil Nadu	2862	3418	3731	5165
25	Tripura	27	46	74	128
26	Uttarakhand	201	261	194	150
27	Uttar Pradesh	2821	3258	3456	4210
28	West Bengal	1890	1667	1162	1210
	UTs				
1	Andaman & Nicobar Islands	0	0	0	0
2	Chandigarh	0	0	0	28
3	Dadra & Nagar Haveli	0	0	0	0
4	Daman & Diu	0	0	0	0
5	Delhi	330	463	319	307
6	Lakshadweep	0	0	0	0
7	Puducherry	0	0	59	61
	Total	**25878**	**28315**	**31688**	**34081**

(P): Provisional

Annexure- IV C

Total Number of Persons Injured on State Highways in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	12799	14857	13760	15045
2	Arunachal Pradesh	161	130	228	163
3	Assam	1262	1173	1084	1018
4	Bihar	708	1097	1620	1498
5	Chhattisgarh	3015	2259	2969	3696
6	Goa	278	332	360	480
7	Gujarat	11411	10527	10881	11218
8	Haryana	2977	3097	3497	3577
9	Himachal Pradesh	1100	1289	1145	1145
10	Jammu & Kashmir	1101	1939	1148	1333
11	Jharkhand	1378	1210	1128	355
12	Karnataka	11652	15474	20673	21671
13	Kerala	8936	6678	8186	7395
14	Madhya Pradesh	10331	12123	11111	11731
15	Maharashtra	12154	13209	13880	14886
16	Manipur	224	203	322	378
17	Meghalaya	112	170	78	78
18	Mizoram	10	47	35	31
19	Nagaland	99	86	49	32
20	Orissa	2238	2931	3093	2631
21	Punjab	969	1486	1156	1707
22	Rajasthan	3359	2465	3860	3442
23	Sikkim	232	41	20	17
24	Tamil Nadu	21598	20324	22021	28192
25	Tripura	30	335	474	870
26	Uttarakhand	620	615	373	314
27	Uttar Pradesh	3600	3991	4506	5966
28	West Bengal	6045	3921	5196	3567
	UTs				
1	Andaman & Nicobar Islands	0	0	0	0
2	Chandigarh	0	0	0	87
3	Dadra & Nagar Haveli	0	0	0	0
4	Daman & Diu	0	0	0	0
5	Delhi	1150	1402	1002	730
6	Lakshadweep	0	0	0	0
7	Puducherry	0	0	404	455
	Total	**119549**	**123411**	**134259**	**143708**

(P): Provisional

Annexure-V

Total Number of Road Accidents in States/UTs Classified According to Cause of Accidents in 2008

Sl. No.	States/UTs	Fault of Driver			Fault of Cyclist			Fault of Pedestrian		
		Total No. of Accidents	No. of Persons		Total No. of Accidents	No. of Persons		Total No. of Accidents	No. of Persons	
			Killed	Injured		Killed	Injured		Killed	Injured
1	2	3	4	5	6	7	8	9	10	11
1	Andhra Pradesh	31727	9608	42221	291	106	620	735	211	649
2	Arunachal Pradesh	78	42	127	0	0	0	5	2	3
3	Assam	4425	1688	4964	70	39	31	126	62	56
4	Bihar	4583	2058	3079	194	112	124	162	53	132
5	Chhattisgarh	8154	1774	8342	209	11	213	195	45	184
6	Goa	3019	259	2193	102	3	73	113	9	102
7	Gujarat	29437	6267	31569	940	138	836	2266	447	2072
8	Haryana	8966	3482	8279	159	85	199	142	85	170
9	Himachal Pradesh	2390	757	4171	12	6	18	38	9	48
10	Jammu & Kashmir	4279	813	6169	0	0	0	0	0	0
11	Jharkhand	3544	1384	2940	10	2	7	25	16	18
12	Karnataka	41251	7516	56130	144	33	170	232	42	193
13	Kerala	36604	3778	43256	17	2	15	119	16	107
14	Madhya Pradesh	39673	6065	45578	339	40	399	612	80	769
15	Maharashtra	59837	10528	44064	368	82	379	351	79	299
16	Manipur	305	58	643	0	0	0	0	0	0
17	Meghalaya	179	71	278	18	6	9	10	4	8
18	Mizoram	95	59	160	0	0	0	1	1	0
19	Nagaland	13	7	25	0	0	0	0	0	0
20	Orissa	4755	1821	5873	60	28	61	122	81	110
21	Punjab	3818	2336	2939	38	26	29	9	3	5
22	Rajasthan	22732	8071	29615	55	52	111	69	19	74
23	Sikkim	56	30	74	0	0	0	0	0	0
24	Tamil Nadu	53467	11071	62952	742	152	692	1126	271	1301
25	Tripura	556	158	1189	7	7	1	0	0	0
26	Uttarakhand	1165	824	1395	25	24	35	0	0	0
27	Uttar Pradesh	11860	5861	7086	1098	664	857	904	547	705
28	West Bengal	5555	2519	3528	322	172	197	410	156	441
	UTs									
1	A & N Islands	185	22	248	0	0	0	1	0	1
2	Chandigarh	477	145	435	0	0	0	0	0	0
3	Dadra & Nagar Haveli	116	65	120	0	0	0	0	0	0
4	Daman & Diu	46	25	57	0	0	0	0	0	0
5	Delhi	0	0	0	0	0	0	0	0	0
6	Lakshadweep	10	0	6	0	0	0	0	0	0
7	Puducherry	1661	198	1832	5	2	3	9	6	3
	Total	385018	89360	421537	5225	1792	5079	7782	2244	7450

Annexure-V (contd)

Total Number of Road Accidents in States/UTs Classified According to Cause of Accidents in 2008

Sl. No.	States/UTs	Defect in Condition of Motor Vehicle			Defect in Road Condition			Weather Condition			All Other Causes *		
		Total No. of Accidents	No. of Persons		Total No. of	No. of Persons		Total No. of	No. of Persons		Total No. of	No. of Persons	
			Killed	Injured		Killed	Injured		Killed	Injured		Killed	Injured
1	2	12	13	14	15	16	17	18	19	20	21	22	23
1	Andhra Pradesh	715	181	1218	1108	412	1449	657	246	866	7424	3048	11718
2	Arunachal Pradesh	67	21	121	37	15	41	30	18	29	63	36	104
3	Assam	0	0	0	0	0	0	0	0	0	62	18	30
4	Bihar	521	202	409	382	196	338	151	72	120	2998	1247	2157
5	Chhattisgarh	706	146	657	206	51	171	264	82	207	3211	857	3099
6	Goa	84	1	52	20	1	19	10	0	11	830	45	717
7	Gujarat	118	22	155	75	12	138	32	6	34	803	178	918
8	Haryana	189	64	182	167	55	142	184	88	178	1789	635	1420
9	Himachal Pradesh	43	17	80	24	7	27	3	0	2	246	52	368
10	Jammu & Kashmir	11	3	4	48	8	105	1	0	1	987	126	1318
11	Jharkhand	377	106	316	80	50	76	22	10	16	927	411	1000
12	Karnataka	396	84	450	308	102	489	220	39	289	3728	998	5593
13	Kerala	317	70	254	25	11	19	0	0	0	181	24	206
14	Madhya Pradesh	625	105	853	308	43	506	243	32	279	2052	305	2670
15	Maharashtra	895	183	598	528	86	358	52	18	38	13496	1421	7044
16	Manipur	126	42	234	14	21	56	66	16	154	62	14	129
17	Meghalaya	12	1	8	1	0	1	11	14	0	63	27	51
18	Mizoram	11	3	25	0	0	0	0	0	0	3	0	0
19	Nagaland	24	22	70	0	0	0	0	0	0	39	41	150
20	Orissa	589	224	764	740	288	988	323	119	402	1592	518	2180
21	Punjab	64	39	70	87	56	61	71	48	52	1028	698	1040
22	Rajasthan	14	2	12	158	50	192	13	1	35	663	193	818
23	Sikkim	60	21	81	0	0	0	22	9	15	58	19	76
24	Tamil Nadu	486	116	782	498	143	458	120	28	155	3970	1003	3911
25	Tripura	34	10	66	0	0	0	0	0	0	170	46	238
26	Uttarakhand	43	53	74	35	61	40	18	10	22	131	101	199
27	Uttar Pradesh	1103	659	920	668	218	438	738	316	813	9313	4900	7237
28	West Bengal	832	355	487	578	220	511	778	214	715	3731	1153	7367
	UTs												
1	A & N Islands	1	0	3	0	0	0	1	0	1	3	0	3
2	Chandigarh	0	0	0	0	0	0	0	0	0	5	3	2
3	Dadra & Nagar Haveli	0	0	0	0	0	0	0	0	0	0	0	0
4	Daman & Diu	0	0	0	0	0	0	0	0	0	4	4	1
5	Delhi #	0	0	0	0	0	0	0	0	0	8435	2093	7343
6	Lakshadweep	0	0	0	0	0	0	0	0	0	2	0	1
7	Puducherry	0	0	0	0	0	0	0	0	0	22	6	17
	Total	8463	2752	8945	6095	2106	6623	4030	1386	4434	68091	20220	69125

* : Includes Fault of Driver of other vehicles, Fault of Passengers, Poor light condition, Falling of boulders, Neglect of civic bodies, Stray animals, other causes and causes not known.

#: Data pertaining to Delhi is clubbed with All Other Causes due to non-submission of break-up.

Annexure-VI

Accidents Caused due to Over-loading/Over-Crowding/Load Protruding, 2008

Sl. No.	State	Accidents caused due to Overloading/Overcrowding			Accidents Caused due to Load Protruding			Total Accidents in the State/UT		
		No. of Accidents	No. of Persons		No. of Accidents	No. of Persons		No. of Accidents	No. of Persons	
		Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
1	2	3	4	5	6	7	8	9	10	11
1	Andhra Pradesh	11815	3306	16960	4784	1592	6768	42657	13812	58741
2	Arunachal Pradesh	53	17	62	0	0	0	280	134	425
3	Assam	1157	422	1421	83	27	112	4683	1807	5081
4	Bihar	3194	1522	1641	8	166	579	8991	3940	6359
5	Chhattisgarh	1843	469	1895	1074	216	1131	12945	2966	12873
6	Goa	158	33	77	118	13	63	4178	318	3167
7	Gujarat	2700	627	3231	1418	255	1538	33671	7070	35722
8	Haryana	3600	1580	3799	364	124	416	11596	4494	10570
9	Himachal Pradesh	1974	582	3492	144	47	203	2756	848	4714
10	Jammu & Kashmir	2192	324	2140	488	96	823	5326	950	7597
11	Jharkhand	1015	409	700	78	24	70	4985	1979	4373
12	Karnataka	10395	2194	15047	4149	770	5349	46279	8814	63314
13	Kerala	962	93	1018	191	21	215	37263	3901	43857
14	Madhya Pradesh	14298	2231	15546	2955	414	3574	43852	6670	51054
15	Maharashtra	9368	2618	8676	2901	784	3029	75527	12397	52780
16	Manipur	253	77	510	114	12	229	573	151	1216
17	Meghalaya	0	0	0	12	16	9	294	123	355
18	Mizoram	45	36	77	5	6	0	110	63	185
19	Nagaland	9	3	36	0	0	0	76	70	245
20	Orissa	2625	964	3383	752	304	1116	8181	3079	10378
21	Punjab	1692	1039	1293	814	581	706	5115	3206	4196
22	Rajasthan	2739	1049	3917	313	135	491	23704	8388	30857
23	Sikkim	50	28	34	59	26	107	196	79	246
24	Tamil Nadu	18825	3266	22303	1325	192	1704	60409	12784	70251
25	Tripura	587	176	1131	180	45	363	767	221	1494
26	Uttarakhand	362	268	529	488	325	456	1417	1073	1765
27	Uttar Pradesh	6415	3101	4024	2941	1613	2218	25684	13165	18056
28	West Bengal	2888	978	3772	734	200	546	12206	4789	13246
	UTs									
1	Andaman & Nicobar Islands	89	14	113	8	0	9	191	22	256
2	Chandigarh	0	0	0	0	0	0	482	148	437
3	Dadra & Nagar Haveli#	0	0	0	0	0	0	116	65	120
4	Daman & Diu	0	0	0	0	0	0	50	29	58
5	Delhi#	0	0	0	0	0	0	8435	2093	7343
6	Lakshadweep	0	0	0	0	0	0	12	0	7
7	Puducherry	13	2	13	0	0	0	1697	212	1855
	Total	**101316**	**27428**	**116840**	**26500**	**8004**	**31824**	**484704**	**119860**	**523193**

: Break-up not available.

Annexure-VII

Road Accidents classified according to types of vehicles and objects primarily responsible, 2008

Sl. No.	States/UTs	Two-Wheelers				Auto-Rickshaws				Cars, Jeeps, Taxis			
		Total	Fatal	Killed	Injured	Total	Fatal	Killed	Injured	Total	Fatal	Killed	Injured
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	States												
1	Andhra Pradesh	7896	1922	2157	8072	7739	1580	1958	11095	6194	1394	1655	6735
2	Arunachal Pradesh	51	14	15	48	17	3	5	20	99	33	48	123
3	Assam	619	223	232	488	218	33	43	299	985	304	330	1023
4	Bihar	1009	383	399	664	262	82	91	208	1936	680	823	1625
5	Chhattisgarh	3346	494	550	3393	295	36	36	378	2514	360	442	2684
6	Goa	1816	157	162	1417	74	2	2	74	782	29	33	554
7	Gujarat	6854	1042	1128	6562	3613	479	566	4634	5807	995	1212	6531
8	Haryana	1225	286	335	1570	457	127	177	356	2882	877	1010	2549
9	Himachal Pradesh	603	83	95	839	52	3	2	87	951	202	300	1696
10	Jammu & Kashmir	919	119	119	1005	170	12	14	254	992	117	139	1276
11	Jharkhand	1024	292	334	915	137	46	51	144	1031	314	364	977
12	Karnataka	11118	1803	1824	12344	4132	453	506	5622	8606	1115	1254	10595
13	Kerala	12327	903	929	12082	5163	236	253	6244	8902	925	1002	10971
14	Madhya Pradesh	12893	1027	1095	13986	1786	100	101	2226	9421	1106	1333	11073
15	Maharashtra	15602	2307	2231	9455	6201	575	670	4389	19662	1822	2357	10552
16	Manipur	145	22	22	203	25	3	3	55	113	19	26	194
17	Meghalaya	33	10	11	31	5	2	2	16	85	16	18	85
18	Mizoram	16	5	5	18	5	2	2	6	26	9	16	92
19	Nagaland	6	5	4	6	8	7	3	16	12	10	3	5
20	Orissa	1617	491	502	1669	320	84	88	461	1424	390	487	1934
21	Punjab	706	355	379	561	95	49	49	95	1173	571	629	1036
22	Rajasthan	5150	1187	1296	5563	704	147	178	991	6507	1741	2052	7838
23	Sikkim	15	1	2	10	0	0	0	0	95	16	26	124
24	Tamil Nadu	12276	1974	2092	13933	3299	456	491	4480	9132	1569	1738	11277
25	Tripura	79	24	24	62	111	22	25	135	194	37	52	552
26	Uttarakhand	187	71	86	166	21	10	14	20	408	189	295	619
27	Uttar Pradesh	4347	1926	2231	2892	470	166	275	543	5361	2288	2666	3940
28	West Bengal	1497	643	699	1078	551	170	113	591	2129	648	628	2414
	UTs												
1	Andaman & Nicobar Islands	61	6	6	69	26	1	1	26	51	4	4	44
2	Chandigarh	94	21	22	80	27	6	6	26	233	48	50	237
3	Dadra & Nagar Haveli	40	24	25	25	5	3	3	3	11	3	3	33
4	Daman & Diu	11	6	6	8	3	2	2	16	10	3	3	13
5	Delhi	1157	144	147	1161	250	29	29	267	2261	223	238	2342
6	Lakshadweep	8	0	0	5	2	0	0	1	1	0	0	0
7	Puducherry	741	64	66	927	122	4	4	159	245	28	28	225
	Total	105488	18034	19230	101307	36365	4930	5763	43937	100235	18085	21264	101968

Annexure-VII (contd.)

Road Accidents classified according to types of vehicles and objects* primarily responsible, 2008

		Buses				Trucks, Tempos/MAVs & Tractors				Other Motor Vehicles				Other Vehicles/Objects			
		Total	Fatal	Killed	Injured	Total	Fatal	Killed	Injured	Total	Fatal	Killed	Injured	Total	Fatal	Killed	Injured
1	2	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	States																
1	Andhra Pradesh	3052	1064	1130	4873	10569	3958	4396	13038	4116	1420	1560	10729	3091	895	956	4199
2	Arunachal Pradesh	18	6	15	69	40	16	26	75	55	18	25	90	0	0	0	0
3	Assam	968	357	387	1481	1193	434	476	968	442	162	220	705	258	128	119	117
4	Bihar	988	354	419	931	3120	1293	1489	1917	1398	589	624	874	278	133	95	140
5	Chhattisgarh	864	185	213	1241	3525	925	1031	3030	1804	485	569	1595	597	115	125	552
6	Goa	278	13	24	293	567	20	22	385	70	2	2	72	591	71	73	372
7	Gujarat	1777	356	475	2406	9233	1943	2251	9279	2153	558	635	2157	4234	759	803	4153
8	Haryana	698	296	328	696	3218	1248	1415	2770	1397	583	589	1544	1719	654	640	1085
9	Himachal Pradesh	311	54	130	846	537	139	197	829	299	84	121	414	3	3	3	3
10	Jammu & Kashmir	612	94	212	1533	1257	184	242	1601	1375	167	223	1928	1	1	1	0
11	Jharkhand	561	238	249	445	1652	739	766	1207	478	158	168	630	102	42	47	55
12	Karnataka	5056	960	1136	9387	12729	2526	2939	19329	3262	725	866	4332	1376	266	289	1705
13	Kerala	4996	706	786	7813	4075	563	617	4821	1635	278	293	1774	165	21	21	152
14	Madhya Pradesh	3663	539	681	6156	11069	2256	2556	12963	3303	623	691	3066	1717	210	213	1584
15	Maharashtra	3898	446	550	3736	15649	3102	3044	12271	8713	929	1528	5897	5802	1608	2017	6480
16	Manipur	77	20	24	319	154	33	59	321	59	12	17	124	0	0	0	0
17	Meghalaya	33	8	11	144	82	46	53	47	32	5	11	19	24	16	17	13
18	Mizoram	36	22	25	40	6	6	6	9	21	9	9	20	0	0	0	0
19	Nagaland	19	13	38	151	13	8	8	35	11	8	14	24	7	6	0	8
20	Orissa	861	277	318	1952	3051	1274	1329	3267	633	199	220	782	275	123	135	313
21	Punjab	601	325	387	645	1552	901	1042	1219	601	424	478	244	387	215	242	396
22	Rajasthan	2154	670	834	6096	6882	2557	2995	7587	2288	935	1028	2756	19	4	5	26
23	Sikkim	**1**	1	**0**	25	36	9	5	10	49	5	46	77	0	0	0	0
24	Tamil Nadu	7002	1545	1740	9427	9716	2189	2523	11278	4907	1315	1411	5457	14077	2765	2789	14399
25	Tripura	74	20	23	175	141	41	45	320	165	46	52	248	3	0	0	2
26	Uttarakhand	186	99	249	368	448	262	322	426	145	79	98	126	22	7	9	40
27	Uttar Pradesh	2150	920	1012	1714	7170	3478	3693	4598	2878	1325	1398	1823	3308	1549	1890	2546
28	West Bengal	1841	553	768	3082	3695	1497	1612	3563	1537	667	623	1911	956	493	346	607
	UTs																
1	Andaman & Nicobar Island	20	1	1	76	27	7	7	28	6	3	3	13	0	0	0	0
2	Chandigarh	45	20	20	37	58	33	34	43	24	16	16	13	1	0	0	1
3	Dadra & Nagar Haveli	7	4	4	9	44	22	24	40	9	6	6	10	0	0	0	0
4	Daman & Diu	1	0	0	2	19	14	14	12	6	4	4	7	0	0	0	0
5	Delhi	865	249	255	738	1579	504	547	1229	178	41	44	154	2145	825	833	1452
6	Lakshadweep	1	0	0	1	0	0	0	0	**0**	0	**0**	0	0	0	0	0
7	Puducherry	179	50	51	158	407	61	63	386	0	0	0	0	3	0	0	0
	Total	43893	10465	12495	67065	113513	32288	35848	118901	44049	11880	13592	49615	41161	10909	11668	40400

Note: Cars includes jeeps & taxis, Two-Wheelers includes Motor cycle, Scooter & Moped.
Other Vehicles/Objects incluses Cycle, Cycle rickshaws, Hand drawn vehicle, Pedestrian, Animal, Tree, Level crossing & Other fixed objects

Annexure - VIII

Accidents caused due to Intake of Alcohol/Drugs and Exceeding Lawful Speed by drivers in States/Uts 2008

Sl. No.	State	Accidents caused due to intake of alcohol/drugs			Accident caused due to Exceeded Lawful Speed		
		No. of Accidents	No. of Persons		No. of Accidents	No. of Persons	
		Total	Killed	Injured	Total	Killed	Injured
1	2	3	4	5	6	7	8
1	Andhra Pradesh	1591	619	2283	23445	7471	30831
2	Arunachal Pradesh	25	15	30	49	32	160
3	Assam	530	414	438	2849	843	3429
4	Bihar	1944	839	1400	2380	1008	1928
5	Chhattisgarh	855	222	910	6149	1347	6186
6	Goa	42	0	28	2977	271	2216
7	Gujarat	540	64	468	19922	4373	21656
8	Haryana	427	181	399	6541	2580	6444
9	Himachal Pradesh	34	9	81	1373	388	2207
10	Jammu & Kashmir	378	48	492	3228	603	4441
11	Jharkhand	725	296	683	1348	633	1130
12	Karnataka	513	156	648	28646	5678	40190
13	Kerala	67	11	68	20663	2317	24129
14	Madhya Pradesh	1899	277	2025	24049	4034	29830
15	Maharashtra	2169	896	3172	46821	8704	38680
16	Manipur	105	6	199	108	22	181
17	Meghalaya	9	3	13	144	69	205
18	Mizoram	18	7	43	56	35	77
19	Nagaland	9	5	5	27	25	96
20	Orissa	819	333	814	3225	1330	4369
21	Punjab	130	101	98	2242	1478	2077
22	Rajasthan	1132	353	1325	12350	4736	16911
23	Sikkim	52	19	78	90	28	126
24	Tamil Nadu	363	88	308	25909	5703	30949
25	Tripura	23	6	69	570	175	1111
26	Uttarakhand	9	22	25	883	575	895
27	Uttar Pradesh	4155	2021	2753	5363	2803	4156
28	West Bengal	1555	668	2223	3803	1670	4280
	UTs						
1	Andaman & Nicobar Islands	23	2	31	97	15	135
2	Chandigarh	4	0	0	65	20	52
3	Dadra & Nagar Haveli	0	0	0	116	65	120
4	Daman & Diu	1	1	0	6	5	8
5	Delhi#	0	0	0	0	0	0
6	Lakshadweep	0	0	0	8	0	5
7	Puducherry	4	-	1	1687	210	1847
	Total	**20150**	**7682**	**21110**	**247189**	**59246**	**281057**

This Table is to be used in conjunction with Table V

ANNEXURE -IX

Percentage share in Total Registered Motor Vehicles in India as on 31st March

1	2	3	4
States/UT	**2004**	**2005**	**2006**
Andhra Pradesh	7.9	7.9	8.1
Arunachal Pradesh	0.0	0.0	0.0
Assam	1.0	1.0	1.0
Bihar	1.0	1.7	1.6
Chhattisgarh	1.7	1.7	1.7
Goa	0.6	0.6	0.6
Gujarat	9.7	9.6	9.6
Haryana	3.5	3.5	3.4
Himachal Pradesh	0.4	0.4	0.4
Jammu & Kashmir	0.6	0.6	0.6
Jharkhand	1.7	1.7	1.7
Karnataka	5.5	6.7	6.9
Kerala	3.8	3.8	4.0
Madhya Pradesh	5.2	5.1	5.1
Maharashtra	12.3	12.2	12.2
Manipur	0.1	0.1	0.1
Meghalaya	0.1	0.1	0.1
Mizoram	0.1	0.1	0.1
Nagaland	0.2	0.2	0.2
Orissa	2.1	2.1	2.2
Punjab	4.9	4.8	4.5
Rajasthan	5.3	5.2	5.3
Sikkim	0.0	0.0	0.0
Tamil Nadu	11.8	11.4	11.2
Tripura	0.1	0.1	0.1
Uttarakhand	0.7	0.7	0.7
Uttar Pradesh	8.9	9.0	8.9
West Bengal	3.5	3.3	3.2
TOTAL STATES	**92.8**	**93.5**	**93.7**
A & N Islands	0.0	0.0	0.0
Chandigarh	0.8	0.8	0.7
D & N Haveli	0.0	0.0	0.0
Daman & Diu	0.1	0.1	0.1
Delhi	5.8	5.1	5.0
Lakshadweep	0.0	0.0	0.0
Puducherry	0.4	0.4	0.4
TOTAL Uts	**7.2**	**6.5**	**6.3**
Total	**100**	**100**	**100**

Annexure-X

Total Number of Fatal Road Accidents in States/UTs in 2005 to 2008

Sl. No.	States/UTs	2005	2006	2007	2008(P)
1	2	3	4	5	6
	States				
1	Andhra Pradesh	9126	11378	11885	12233
2	Arunachal Pradesh	63	87	81	90
3	Assam	1420	1627	1483	1641
4	Bihar	1462	2315	3074	3514
5	Chhattisgarh	2049	2288	2496	2600
6	Goa	220	290	300	294
7	Gujarat	4922	5435	5958	6132
8	Haryana	3010	3483	3980	4071
9	Himachal Pradesh	549	577	659	568
10	Jammu & Kashmir	660	646	717	694
11	Jharkhand	1784	1784	2078	1829
12	Karnataka	6093	7092	7875	7848
13	Kerala	2956	3390	3465	3632
14	Madhya Pradesh	4620	4846	5457	5861
15	Maharashtra	8867	9796	9802	10789
16	Manipur	115	127	103	109
17	Meghalaya	106	125	107	103
18	Mizoram	52	53	44	53
19	Nagaland	48	60	74	57
20	Orissa	2279	2456	2726	2838
21	Punjab	2447	2724	2664	2840
22	Rajasthan	5815	6252	7036	7241
23	Sikkim	53	40	31	32
24	Tamil Nadu	8843	10055	11034	11813
25	Tripura	188	187	195	190
26	Uttarakhand	622	758	773	717
27	Uttar Pradesh	8832	9592	10256	11652
28	West Bengal	4073	3896	4232	4671
	UTs				
1	Andaman & Nicobar Islands	17	18	21	22
2	Chandigarh	133	134	142	144
3	Dadra & Nagar Haveli	51	43	61	62
4	Daman & Diu	21	24	29	29
5	Delhi	1771	2129	2081	2015
6	Lakshadweep	0	1	0	0
7	Puducherry	224	209	242	207
	Total	**83491**	**93917**	**101161**	**106591**

(P) : Provisional

Annexure- XI

Total Number of Accidents , Number of Persons Killed and Number of Persons Injured in Road Accidents in Urban & Rural Areas, 2008

Sl. No.	States/UTs	Urban			Rural			Total		
		Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
1	2	3	4	5	6	7	8	9	10	11
	States									
1	Andhra Pradesh	15320	4659	18890	27337	9153	39851	42657	13812	58741
2	Arunachal Pradesh	212	104	337	68	30	88	280	134	425
3	Assam	2776	1023	2723	1907	784	2358	4683	1807	5081
4	Bihar	3661	1488	2604	5330	2452	3755	8991	3940	6359
5	Chhattisgarh	5849	1047	5417	7096	1919	7456	12945	2966	12873
6	Goa	1935	150	1372	2243	168	1795	4178	318	3167
7	Gujarat	14500	2139	14741	19171	4931	20981	33671	7070	35722
8	Haryana	4043	1450	2966	7553	3044	7604	11596	4494	10570
9	Himachal Pradesh	1077	231	1641	1679	617	3073	2756	848	4714
10	Jammu & Kashmir	2874	423	3577	2452	527	4020	5326	950	7597
11	Jharkhand	2044	853	1841	2941	1126	2532	4985	1979	4373
12	Karnataka	21713	3210	24061	24566	5604	39253	46279	8814	63314
13	Kerala	14561	1618	17181	22702	2283	26676	37263	3901	43857
14	Madhya Pradesh	22927	2803	24088	20925	3867	26966	43852	6670	51054
15	Maharashtra	46895	4512	20556	28632	7885	32224	75527	12397	52780
16	Manipur	409	117	863	164	34	353	573	151	1216
17	Meghalaya	117	32	137	177	91	218	294	123	355
18	Mizoram	67	45	146	43	18	39	110	63	185
19	Nagaland	54	43	125	22	27	120	76	70	245
20	Orissa	3820	1343	4810	4361	1736	5568	8181	3079	10378
21	Punjab	1942	1119	1561	3173	2087	2635	5115	3206	4196
22	Rajasthan	8582	2405	9856	15122	5983	21001	23704	8388	30857
23	Sikkim	68	18	46	128	61	200	196	79	246
24	Tamil Nadu	24302	6318	32197	36107	6466	38054	60409	12784	70251
25	Tripura	218	52	296	549	169	1198	767	221	1494
26	Uttarakhand	704	435	679	713	638	1086	1417	1073	1765
27	Uttar Pradesh	11611	6006	8349	14073	7159	9707	25684	13165	18056
28	West Bengal	5813	2756	6258	6393	2033	6988	12206	4789	13246
	UTs									
1	Andaman & Nicobar Islands	120	12	176	71	10	80	191	22	256
2	Chandigarh	416	133	369	66	15	68	482	148	437
3	Dadra & Nagar Haveli	30	8	34	86	57	86	116	65	120
4	Daman & Diu	13	6	20	37	23	38	50	29	58
5	Delhi	8435	2093	7343	0	0	0	8435	2093	7343
6	Lakshadweep	0	0	0	12	0	7	12	0	7
7	Puducherry	901	67	944	796	145	911	1697	212	1855
	Total	**228009**	**48718**	**216204**	**256695**	**71142**	**306989**	**484704**	**119860**	**523193**