

## CHAPTER – 1

### ACCIDENTAL DEATHS IN INDIA

#### Incidence and Rate of Accidental Deaths During the Decade (1995-2005)

The incidence of accidental deaths has shown a mixed trend during the decade 1995-2005 with an increase of over 32.2 per cent in the year 2005 as compared to 1995. The population growth during the corresponding period was 20.4 per cent whereas the increase in the rate of accidental deaths during the same period was 9.9 per cent. The

percentage change of accidental deaths are presented in **Table-1.1**.

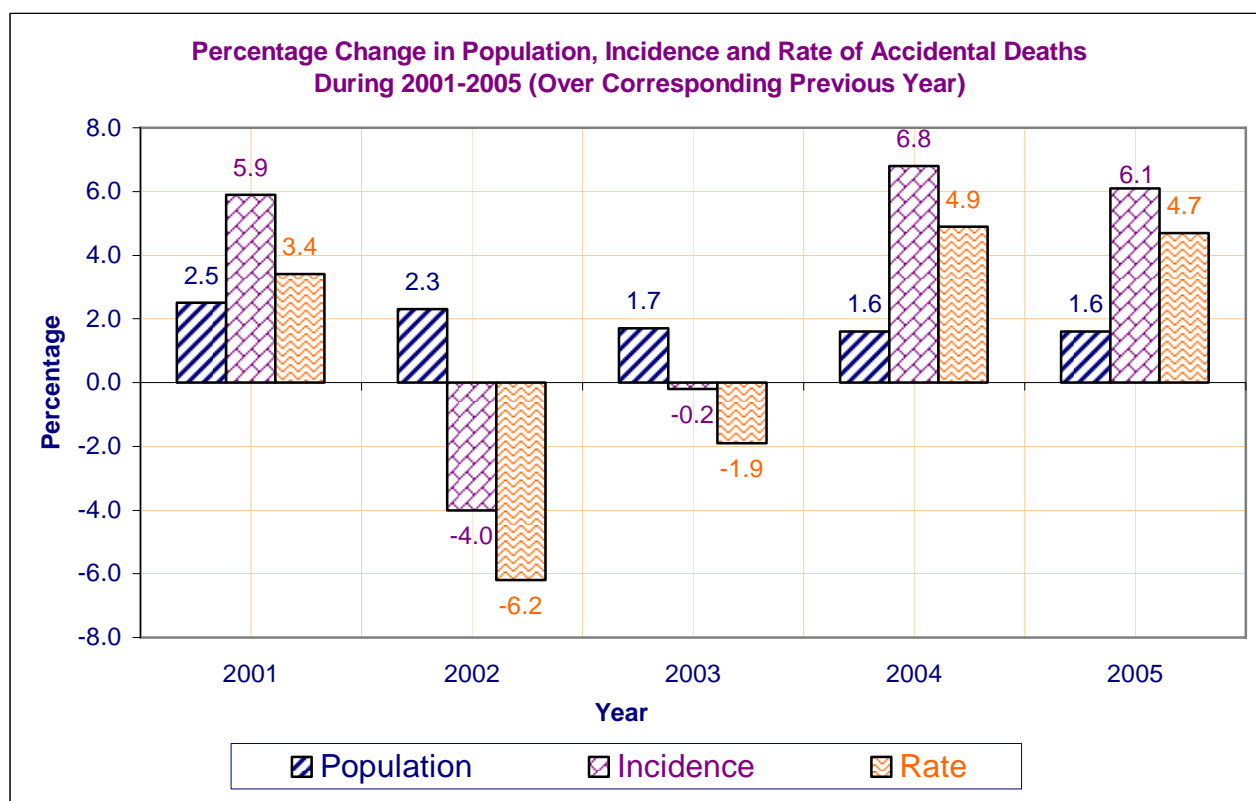
A total of 2,94,175 accidental deaths were reported in the country during 2005 (16912 more than such deaths reported in 2004) showing an increase of 6.1 per cent as compared to previous year. Correspondingly, 1.6 per cent increase in the population and 4.7 per cent increase in the rate of Accidental Deaths were reported during this year as compared to previous year [**Table 1(A)**].

**Table — 1 (A)**

**Percentage change in Population, Incidence and Rate of Accidental Deaths over the corresponding previous year during 2001 to 2005**

Year	Percentage Change in Population over the Previous Year	Percentage Change in Accidental Deaths over the Previous Year	Percentage Change in Rate of Accidental Deaths over the previous Year
(1)	(2)	(3)	(4)
2001	2.5	5.9	3.4
2002	2.3	- 4.0	- 6.2
2003	1.7	- 0.2	- 1.9
2004	1.6	6.8	4.9
2005	1.6	6.1	4.7

**Figure 1.1**



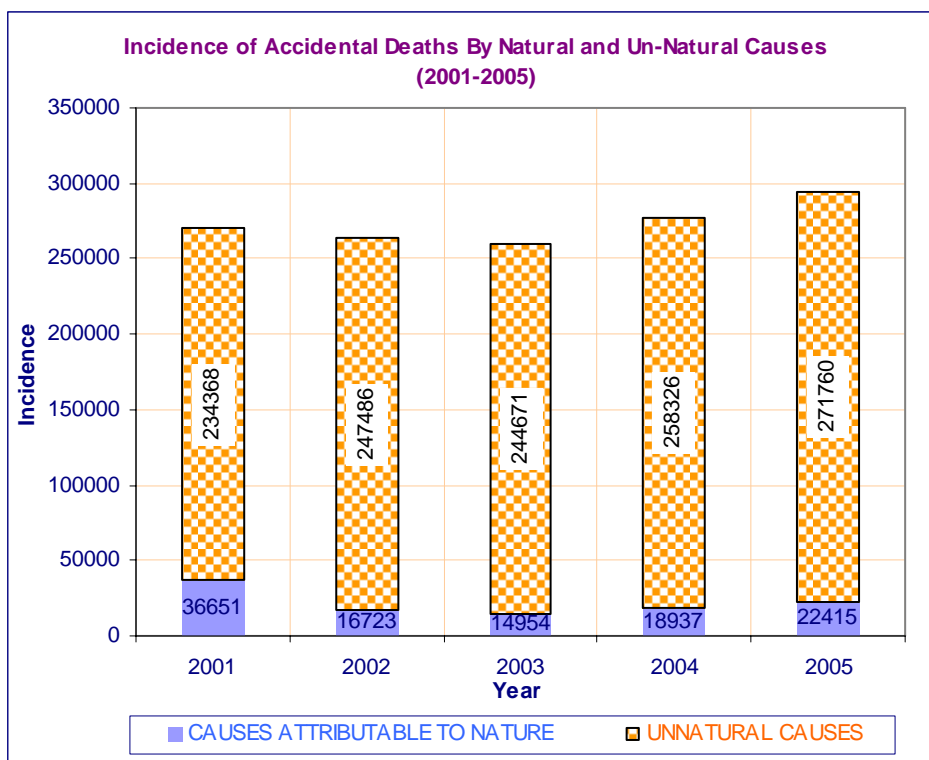
2,71,760 (92.4%) deaths were due to un-natural causes and the rest 7.6% deaths (22,415) were due to causes attributable to nature, out of total 2,94,175 accidental deaths during the year 2005. There was an increase of

18.4% in deaths due to causes attributable to nature and an increase of 5.2 per cent in deaths due to un-natural causes as compared to 2004, resulting in an overall increase of accidental deaths by 6.1 per cent [Table 1(B)].

**Table — 1 (B)**  
**Incidence of Accidental Deaths by Natural & Un-Natural Causes**  
**(2001 to 2005)**

Year	Causes Attributable to Nature		Un-Natural Causes		Total Accidental Deaths	
	Incidence	% change over previous year	Incidence	% change over previous year	Incidence	% change over previous year
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2001	36,651	111.1	2,34,368	- 1.7	2,71,019	5.9
2002	16,723	- 54.4	2,43,399	5.6	2,60,122	- 4.0
2003	14,954	- 10.6	2,44,671	- 1.1	2,59,625	- 0.2
2004	18,937	26.6	2,58,326	5.6	2,77,263	6.8
2005	22,415	18.4	2,71,760	5.2	2,94,175	6.1

**Figure 1.2**

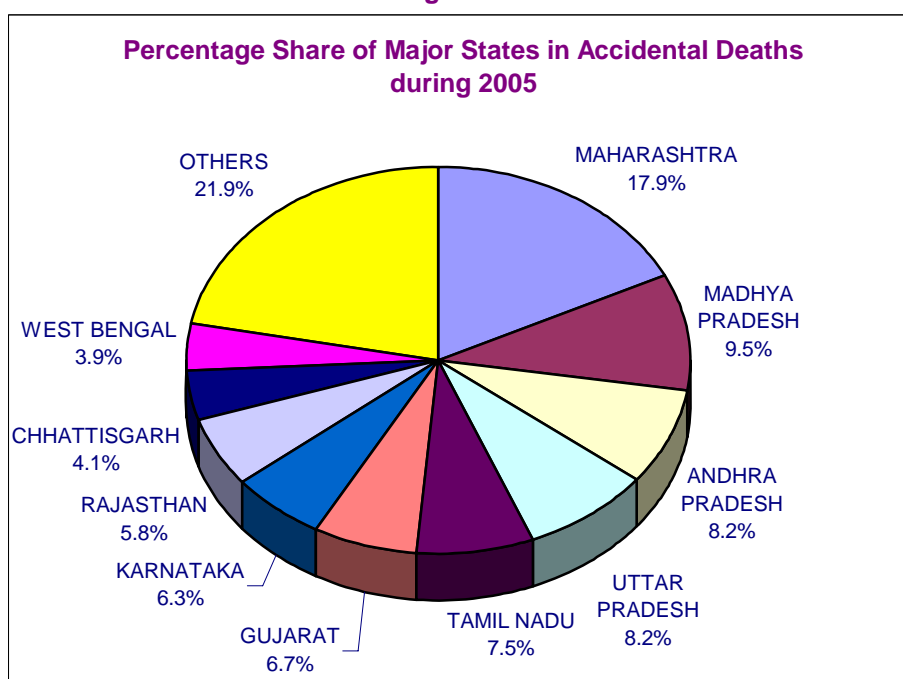


**Incidence & Rate of Accidental Deaths in States, UTs and Cities (Table 1.2)**

Maharashtra has reported 52,649 accidental deaths out of 2,94,175 such deaths in the country during the year and remained at the top with nearly one fifth (17.9%) of total accidental deaths reported in the country. On the other hand, Uttar Pradesh, the most populous State

in the country with population share of 16.4%, has accounted for 8.2% of accidental deaths and stood at 3rd position jointly with Andhra Pradesh (8.2%) after Maharashtra (17.9%) and Madhya Pradesh (9.5%). The States of Tamil Nadu, Gujarat (7.5% and 6.7%) have also reported significant shares of deaths due to accidents during 2005.

**Figure 1.3**



The highest rate of accidental deaths was reported from **A & N Islands (736.6)** followed by Pondicherry (89.8) against the National average rate of 26.7.

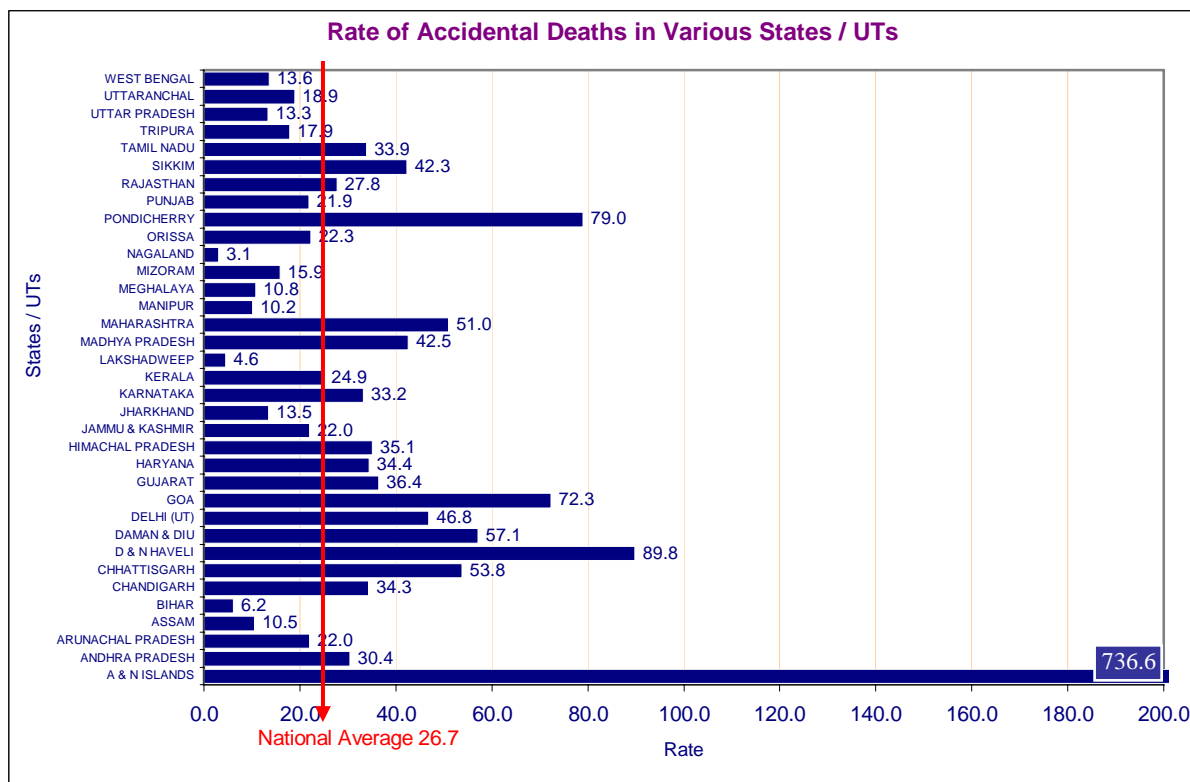
12 States & 6 UTs have constituted high risk areas reporting higher rates of 'Accidental

Deaths' than the All-India average of 26.7 deaths per one lakh of population. The grouping of the States/UTs as more accident prone and less accident prone on the basis of their rates of accidental deaths vis-a-vis the All-India average rate is presented in **Table – 1(C)**.

**Table — 1 (C)**  
**State/UT-wise Rate of Accidental Deaths in Comparison to All India (Rate)**

More Accident Prone			Less Accident Prone		
Sl. No.	States / UTs	Rate (more than 26.7)	Sl. No.	States / UTs	Rate (less than 26.7)
1.	A & N ISLANDS	736.6	1.	KERALA	24.9
2.	D & N HAVELI	89.8	2.	ORISSA	22.3
3.	PONDICHERRY	79.0	3.	ARUNACHAL PRADESH	22.0
4.	GOA	72.3	4.	JAMMU & KASHMIR	22.0
5.	DAMAN & DIU	57.1	5.	PUNJAB	21.9
6.	CHHATTISGARH	53.8	6.	UTTARANCHAL	18.9
7.	MAHARASHTRA	51.0	7.	TRIPURA	17.9
8.	DELHI (UT)	46.8	8.	MIZORAM	15.9
9.	MADHYA PRADESH	42.5	9.	WEST BENGAL	13.6
10.	SIKKIM	42.3	10.	JHARKHAND	13.5
11.	GUJARAT	36.4	11.	UTTAR PRADESH	13.3
12.	HIMACHAL PRADESH	35.1	12.	MEGHALAYA	10.8
13.	HARYANA	34.4	13.	ASSAM	10.5
14.	CHANDIGARH	34.3	14.	MANIPUR	10.2
15.	TAMIL NADU	33.9	15.	BIHAR	6.2
16.	KARNATAKA	33.2	16.	LAKSHADWEEP	4.3
17.	ANDHRA PRADESH	30.4	17.	NAGALAND	3.1
18.	RAJASTHAN	27.8			

**Figure 1.4**



**The incidence of Accidental Deaths has increased by 6.1 per cent at National level during 2005 as compared to 2004.** Jharkhand has reported a major increase of 145 percent (1597 deaths in 2004 to 3912 deaths in 2005) followed by A & N Islands (1835 deaths in 2004 to 2858 deaths in 2005 i.e. an increase of 55.7%) while Pondicherry has shown a decline of 34.3 per cent during 2005 as compared to 2004(1241 in 2004 to 815 in 2005) . **[Table (1.3)]**

Males, accounting for 76.4 per cent of total victims, were at a greater risk from accidents than females. Though the children's population (up to 14 years age) as per census 2001 was 30.4 per cent of the total population, accidental deaths of children accounted for 7.2 per cent of total such deaths.

Most of the victims of accidents were aged between 15 to 44 years. This group of people has accounted for nearly two-third (60.6%) of all persons killed in accidents in country during the year. **[Table (1.4)]**

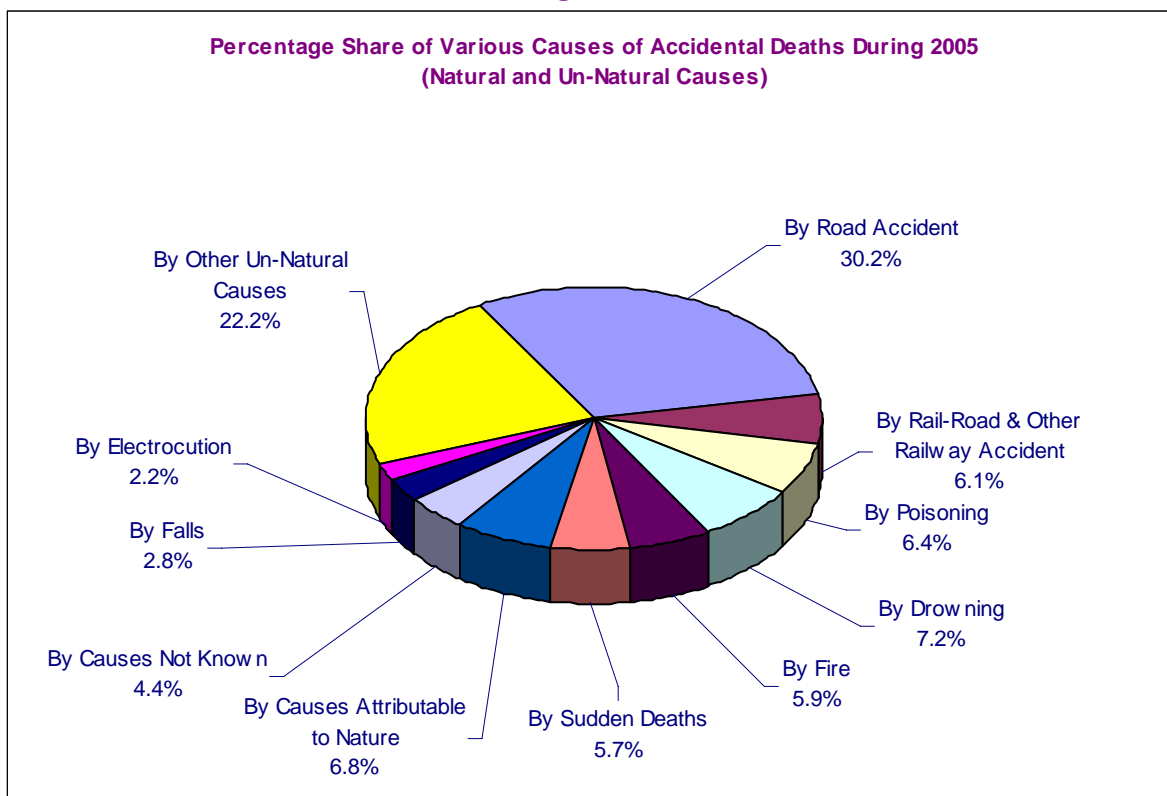
**Causes of Accidental Deaths — [Table 1(D)]**

The percentage of 'Accidental Deaths' due to causes attributable to nature and those due to Un-Natural Causes were 7.6% and 92.4% respectively. The magnitude of 'Accidental Deaths' by causes attributable to nature has increased by 18.4% and that of deaths by Un-Natural Causes has increased by 5.2 per cent during 2005 over the year 2004.

The share of accidental deaths due to causes attributable to Nature has increased from 6.8% in 2004 to 7.6% in 2005. Share of deaths due to Un-natural causes has decreased from 93.2% in 2004 to 92.4% in 2005. The share of deaths due to causes attributable to Nature such as 'Avalanche', 'Starvation' 'Earthquake', 'Heat Stroke', Land Slide' and 'Torrential Rains' and Un-Natural Causes such as 'Collapse of Structure', 'Drowning', 'Falls', 'Stamped' and 'Suffocation' has increased. The same has decreased due to Un-Natural causes such as 'Factory/Machine Accidents' 'Fire' and 'Traffic Accidents' etc.**[Table (1D)]**

**The average rate of Accidental Deaths has marginally increased from 25.5 in 2004 to 26.7 in 2005.**

**Figure 1.5**



**Table — 1 (D)**  
**Incidence, Share & Rate of Accidental Deaths By Causes Attributable to Nature**  
**and Un-Natural Causes**  
**During 2004 & 2005**

Sl. No.	Cause	2004			2005			% variation of incidence in 2005 over 2004
		No.	% share (w.r.t. All India)	Rate	No.	% share (w.r.t. All India)	Rate	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>A. CAUSES ATTRIBUTABLE TO NATURE:</b>								
1	Avalanche	9	0.0	0.0	238	0.1	0.0	2544.4
2	Cold and Exposure	570	0.2	0.1	646	0.2	0.1	13.3
3	Cyclone/Tornado	1512	0.5	0.1	1438	0.5	0.1	-4.9
4	Starvation/Thirst	134	0.0	0.0	163	0.1	0.0	21.6
5	Earthquake	44	0.0	0.0	724	0.2	0.1	1545.5
6	Epidemic	69	0.0	0.0	103	0.0	0.0	49.3
7	Flood	754	0.3	0.1	785	0.3	0.1	4.1
8	Heat Stroke	756	0.3	0.1	1075	0.4	0.1	42.2
9	Landslide	357	0.1	0.0	590	0.2	0.1	65.3
10	Lightning	1842	0.7	0.2	2064	0.7	0.2	12.1
11	Torrential Rains	133	0.0	0.0	557	0.2	0.1	318.8
12	Other causes attributable to nature	12757	4.6	1.2	14032	4.8	1.3	10.0
	<b>Total (A)</b>	<b>18937</b>	<b>6.8</b>	<b>1.7</b>	<b>22415</b>	<b>7.6</b>	<b>2.0</b>	<b>18.4</b>
<b>B. UN-NATURAL CAUSES</b>								
1	Air-Crash	23	0.0	0.0	6	0.0	0.0	-73.9
2	<b>Collapse of Structure:</b>	<b>2169</b>	<b>0.8</b>	<b>0.2</b>	<b>2718</b>	<b>0.9</b>	<b>0.2</b>	<b>25.3</b>
	(i) House	788	0.3	0.1	917	0.3	0.1	16.4
	(ii) Building	184	0.1	0.0	253	0.1	0.0	37.5
	(iii) Dam	25	0.0	0.0	32	0.0	0.0	28.0
	(iv) Bridge	31	0.0	0.0	234	0.1	0.0	654.8
	(v) Others	1141	0.4	0.1	1282	0.4	0.1	12.4
3	<b>Drowning:</b>	<b>21190</b>	<b>7.6</b>	<b>2.0</b>	<b>23571</b>	<b>8.0</b>	<b>2.1</b>	<b>11.2</b>
	(i) Boat Capsize	562	0.2	0.1	759	0.3	0.1	35.1
	(ii) Other Cases	20628	7.4	1.9	22812	7.8	2.1	10.6
4	Electrocution:	6224	2.2	0.6	6987	2.4	0.6	12.3
5	<b>Explosion:</b>	<b>601</b>	<b>0.2</b>	<b>0.1</b>	<b>643</b>	<b>0.2</b>	<b>0.1</b>	<b>7.0</b>
	(i) Bomb explosion	260	0.1	0.0	304	0.1	0.0	16.9
	(ii) Other explosion (Boilers etc.)	341	0.1	0.0	339	0.1	0.0	-0.6
6	<b>Falls:</b>	<b>8448</b>	<b>3.0</b>	<b>0.8</b>	<b>9132</b>	<b>3.1</b>	<b>0.8</b>	<b>8.1</b>
	(i) Fall from Height	7108	2.6	0.7	7698	2.6	0.7	8.3
	(ii) Fall into Pit/Manhole etc.	1340	0.5	0.1	1434	0.5	0.1	7.0
7	Factory/Machine Accidents	715	0.3	0.1	671	0.2	0.1	-6.2
8	<b>Fire:</b>	<b>18445</b>	<b>6.7</b>	<b>1.7</b>	<b>19093</b>	<b>6.5</b>	<b>1.7</b>	<b>3.5</b>
	(i) Fireworks/Crackers	213	0.1	0.0	237	0.1	0.0	11.3
	(ii) Short-Circuit	1038	0.4	0.1	895	0.3	0.1	-13.8
	(iii) Gas Cylinder/Stove Burst	3357	1.2	0.3	3439	1.2	0.3	2.4
	(iv) Other Fire Accidents	13837	5.0	1.3	14522	4.9	1.3	5.0
9	Fire-Arms	2283	0.8	0.2	2254	0.8	0.2	-1.3
10	<b>Sudden Deaths:</b>	<b>17413</b>	<b>6.3</b>	<b>1.6</b>	<b>18519</b>	<b>6.3</b>	<b>1.7</b>	<b>6.4</b>
	(i) Heart Attacks	10870	3.9	1.0	11622	4.0	1.1	6.9
	(ii) Epileptic Fits/Giddiness	2521	0.9	0.2	2838	1.0	0.3	12.6
	(iii) Abortions/Child Birth	692	0.2	0.1	696	0.2	0.1	0.6
	(iv) Influence of Alcohol	3330	1.2	0.3	3363	1.1	0.3	1.0
11	Killed by animals	788	0.3	0.1	847	0.3	0.1	7.5
12	Mines or quarry disaster	456	0.2	0.0	456	0.2	0.0	0.0
13	<b>Poisoning:</b>	<b>22035</b>	<b>7.9</b>	<b>2.0</b>	<b>20800</b>	<b>7.1</b>	<b>1.9</b>	<b>-5.6</b>
	(i) Food Poisoning/Accidental Intake of Insecticide	8049	2.9	0.7	7390	2.5	0.7	-8.2
	(ii) Spurious/poisonous liquor	653	0.2	0.1	724	0.2	0.1	10.9
	(iii) Leakage of poisonous gases Etc.	171	0.1	0.0	249	0.1	0.0	45.6
	(iv) Snake Bite/Animal Bite	6218	2.2	0.6	7078	2.4	0.6	13.8
	(v) Other	6944	2.5	0.6	5359	1.8	0.5	-22.8
14	Stampede	31	0.0	0.0	346	0.1	0.0	1016.1
15	Suffocation	1218	0.4	0.1	1549	0.5	0.1	27.2
16	<b>Traffic Accidents:</b>	<b>111794</b>	<b>40.3</b>	<b>10.3</b>	<b>118265</b>	<b>40.2</b>	<b>10.7</b>	<b>5.8</b>
	(i) Road Accidents	91376	33.0	8.4	98254	33.4	8.9	7.5
	(ii) Rail-Road Accidents	2276	0.8	0.2	1389	0.5	0.1	-39.0
	(iii) Other Railway Accidents	18142	6.5	1.7	18622	6.3	1.7	2.6
17	Other Causes	30409	11.0	2.8	31389	10.7	2.8	3.2
18	Causes Not Known	14084	5.1	1.3	14514	4.9	1.3	3.1
	<b>Total (B)</b>	<b>258326</b>	<b>93.2</b>	<b>23.8</b>	<b>271760</b>	<b>92.4</b>	<b>24.6</b>	<b>5.2</b>
	<b>Grand Total (A+B)</b>	<b>277263</b>	<b>100.0</b>	<b>25.5</b>	<b>294175</b>	<b>100.0</b>	<b>26.7</b>	<b>6.1</b>

Note : — (dash) stands for very negligible figure (less than 0.1)

## Causes Attributable to Nature

The age group-wise distribution of accidental deaths by causes attributable to nature is given in **Table 1.5**. Nearly 73.4 per cent victims of causes attributable to nature were males. Age-wise, nearly 8.7 per cent were up to 14 years of age while 53.6 per cent were in the age-group of 15-44 years. Senior citizens (60 yrs. and above) constituted 15.0 per cent of the total victims.

Nearly 11.6 per cent deaths were reported from Gujarat followed by Uttar Pradesh(11.0%) and Madhya Pradesh (8.8%) (**Table 1.10**). The reasons for accidental deaths in Mizoram could not be specified. 39.8% deaths in Haryana and 23.5% deaths in Meghalaya were due to 'Cold and Exposure' only. 99.9% deaths in A & N Islands were due to 'Cyclone/Tornado'. 62.1 percent deaths in Jammu & Kashmir due to Earthquake. 42.2% deaths in Tamil Nadu and 19.8% deaths in Maharashtra were reported due to Floods, while 39.7% deaths in West Bengal and 25.4% deaths in Tripura were due to 'Heat Stroke' alone. Haryana reported 19.4% deaths due to Starvation/Thirst under causes attributable to Nature. 93.3% deaths were due to 'Landslide' in Nagaland. 100% deaths in Manipur and 45.7% deaths in Tamilnadu were due to 'Lightning'. No deaths have been reported from in Chandigarh, Daman & Diu and Lakshadweep due to causes attributable to Nature.

## Un-natural Causes

It is generally accepted that accidents due to 'Un-Natural Causes' are preventable in nature and can be reduced by effective safety measures — safety consciousness, effective human interventions, etc. **A total of 5,74,850 cases of 'Un-Natural Accidents' caused 2,71,760 deaths and rendered 4,70,923 people injured during 2005 (Table- 1.6).**

Maharashtra accounting for 9.4 % (one-eleventh) of country's population has reported almost one fifth (18.9%) of accidental deaths due to unnatural causes. Madhya Pradesh accounting for only 5.9% of the country's population has reported 9.6% per cent of such deaths (**Table-1.11**).

The age-group-wise distribution of Accidental Deaths in the country by various Un-Natural Causes along with their share in total deaths is

presented in **Table 1.7**. The 'Accidental Deaths' due to Un-Natural Causes were mainly on account of 'Road Accidents' (36.2%), 'Drowning' (8.7%) 'Poisoning' (7.7%), , Railway Accidents and Rail-Road accidents (7.4%), 'Fire Accidents' (7.0%) and 'Sudden Deaths' (6.8%).

The number of cases of Un-natural accidents at the National level has increased by 7.1 per cent (from 5,36,762 in 2004 to 5,74,850 in 2005) as compared to previous year. The number of persons injured has increased by 9.1 per cent (from 4,31,712 in 2004 to 4,70,923 in 2005) and the number of persons killed in these accidents has also increased by 5.2 per cent (from 2,58,326 in 2004 to 2,71,760 in 2005). The Accident cases due to 'Stampede' have increased by 129.6 per cent from 27 in 2004 to 62 in 2005, while cases of Air Crash have decreased by 64.3 per cent from 14 in 2004 to 5 in 2005 [**Table (1.6)**].

The proportion of male injured and killed due to un-natural causes in the country was 83.3 per cent and 76.7 per cent respectively of the total deaths (**Table-1.11**). 95.1 per cent of injuries and 36.2 per cent of deaths were due to Road Accidents only at the National level. Males outnumbered females in all kinds of accidental casualties except 'Fire Accidents' where 67.7 per cent females were killed in these accidents compared to 32.3 per cent males and 'Stampede' in which 57.8% of the victims were females . [**Table (1.7)**]

The cause-wise analysis of un-natural deaths revealed that 84.0 per cent deaths in Nagaland were due to 'Road Accidents', 41.6 per cent deaths in Pondicherry were attributed as Sudden Deaths, 13.3% and 13.0% deaths in Jharkhand and Gujarat were due to 'Fire Accidents', 18.1 per cent deaths in Sikkim were due to 'Falls', 100 per cent deaths in lakshadweep were due to 'Drowning', 16.1 per cent deaths in Madhya Pradesh were due to Poisoning and 6.3% deaths in Mizoram were due to Electrocutation. Reasons for 31.0% deaths in Tripura could not be specified [**Table (1.11)**].

The details of States and UTs categorized as high prone areas (percentage share exceeding the All-India share) on the basis of the percentage share of deaths on these counts, are presented in **Table 1 (E)**.

**Table – 1 (E)**  
**High Prone areas on the basis of Percentage share of deaths**  
**due to unnatural causes (Road Accidents and Poisoning) during 2005**

Sl. No.	High Prone Areas				
	Road Accident Deaths All-India Percentage Share = 36.2%		Sl. No.	Poisoning All-India Percentage Share = 7.7%	
	State/UT	%Share		State/UT	%Share
1.	NAGALAND	84.0	1.	MADHYA PRADESH	16.1
2.	TAMIL NADU	64.1	2.	CHHATTISGARH	14.5
3.	JAMMU & KASHMIR	63.6	3.	ORISSA	12.7
4.	MANIPUR	53.7	4.	HARYANA	10.2
5.	UTTARANCHAL	53.3	5.	KARNATAKA	9.2
6.	ASSAM	51.2	6.	UTTARANCHAL	9.2
7.	MEGHALAYA	49.4	7.	JHARKHAND	8.8
8.	ANDHRA PRADESH	47.1	8.	SIKKIM	8.4
9.	BIHAR	46.7			
10.	UTTAR PRADESH	45.5			
11.	HIMACHAL PRADESH	44.8			
12.	RAJASTHAN	43.0			
13.	HARYANA	42.3			
14.	KARNATAKA	41.0			
15.	ARUNACHAL PRADESH	39.6			
16.	WEST BENGAL	39.4			
17.	CHANDIGARH	39.2			
18.	KERALA	38.7			
19.	ORISSA	38.6			
20.	JHARKHAND	38.1			
21.	TRIPURA	37.2			
22.	MIZORAM	36.6			

**Table – 1 (F)**

**High Prone areas on the basis of Percentage share of deaths due to unnatural causes (Drowning and Fire) during 2005**

Sl. No.	High Prone Areas				
	Deaths due to Drowning All-India Percentage Share = 8.7%		Sl. No.	Fire All-India Percentage Share = 7.0%	
	State/UT	%Share		State/UT	%Share
1.	LAKSHADWEEP	100	1.	JHARKHAND	13.3
2.	GOA	22.1	2.	GUJARAT	13.0
3.	DAMAN & DIU	22.0	3.	MAHARASHTRA	9.3
4.	KERALA	18.6	4.	ANDHRA PRADESH	8.7
5.	MADHYA PRADESH	15.3	5.	TAMIL NADU	8.4
6.	TRIPURA	12.8	6.	KARNATAKA	7.9
7.	CHHATTISGARH	10.7	7.	CHANDIGARH	7.9
8.	SIKKIM	10.6	8.	MADHYA PRADESH	7.4
9.	PONDICHERRY	10.2	9.	D & N HAVELI	7.1
10.	MAHARASHTRA	10.1			
11.	RAJASTHAN	9.7			
12.	GUJARAT	9.7			
13.	JHARKHAND	9.5			
14.	KARNATAKA	9.5			
15.	MEGHALAYA	8.9			

**Table – 1 (G)**

**High Prone areas on the basis of Percentage share of deaths due to unnatural causes (Rail Road & Railways Accidents) during 2005**

Sl. No.	High Prone Areas	
	Rail Road & Railways Accidental Deaths All-India Percentage Share = 7.4%	
	State/UT	%Share
1.	WEST BENGAL	23.7
2.	BIHAR	20.9
3.	HARYANA	17.8
4.	DELHI (UT)	13.1
5.	ASSAM	11.9
6.	UTTAR PRADESH	11.8
7.	MAHARASHTRA	9.3

## Traffic Accidents

Traffic Accidents comprising of (i) Road Accidents (ii) Rail-Road Accidents and (iii) Other Railway Accidents were the major contributors of accidental deaths by Un-natural causes. 'Road Accidents' in the country have increased by 7.5 per cent during 2005 compared to 2004 [Table (1.6)]. There has been proportionate increase of 7.7% in the casualties in Road Accidents in the country

therein, their percentage variations over previous year and the rate of accidental deaths per thousand vehicles during the last five years are presented in Table – 1(I). It is observed that the rate of deaths per thousand vehicles has remain same (1.5) in 2005 as in 2001 though the number of vehicles in the country and the quantum of 'Road Accidents' have increased.

Table – 1 (H)

Share of 'Road Accident Deaths' in Total 'Accidental Deaths' by Un-natural Causes during 2001 to 2005

Sl. No.	Year	Number of Accidental Deaths		% share in Un-Natural Total Deaths
		On Road	Total Un-natural	
(1)	(2)	(3)	(4)	(5)
1.	2001	80,262	2,34,368	34.2
2.	2002	84,059	2,43,399	34.5
3.	2003	84,430	2,44,671	34.5
4.	2004	91,376	2,58,326	35.2
5.	2005	98,254	2,71,760	36.2

during 2005 as compared to 2004. Their proportion in total deaths due to Un-natural causes, also increase slightly to 36.1 in 2005. The following statistics reveal the growing magnitude of 'Road Accident Deaths' [Table 1(H)]. A total of 4,14,397 'Traffic Accidents' were reported during the year comprising of 3,90,378 'Road Accidents' 2537 'Rail-Road Accidents' and 21,482 'Other Railway Accident'. These accidents caused 98,254, 1389 and 18,622 deaths respectively during the year [Table (1.6)].

### Road Accident Deaths

The number of vehicles, number of road accidents along with casualties & injuries

### Railway Accident & Rail-Road Accidents

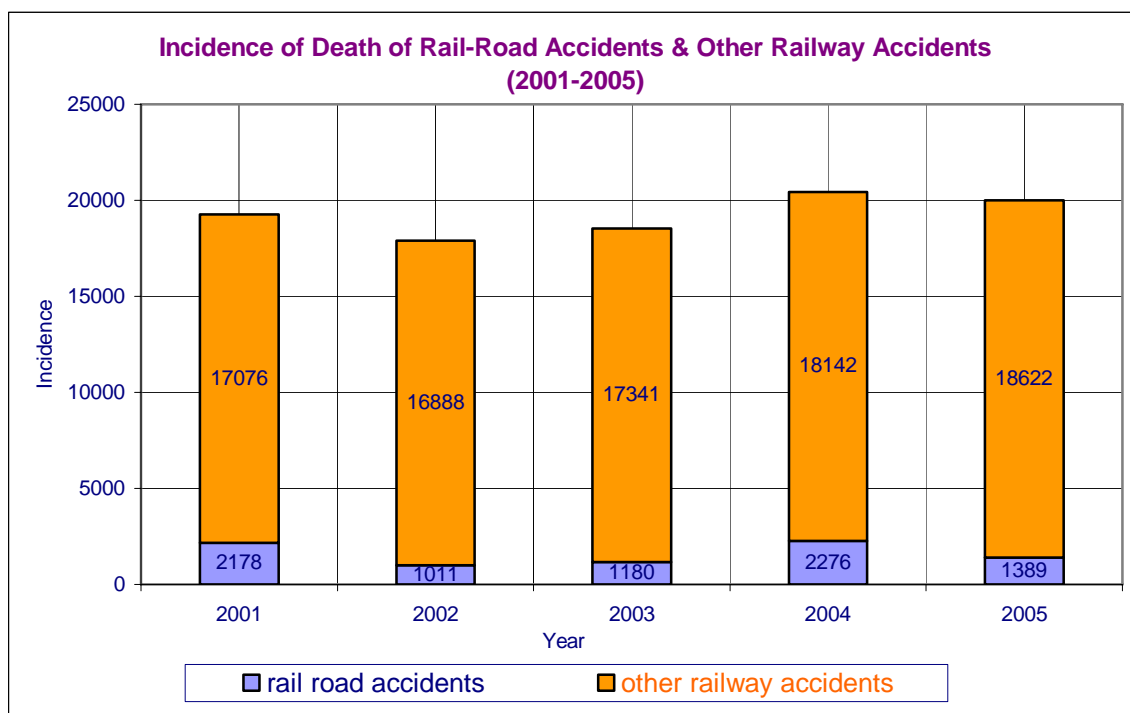
2537 cases of Rail-road accidents were reported during the year 2005 which accounted for 1.8% decrease over 2004 where 2583 cases were reported. The cases of deaths due to Rail-Road accidents have decreased by 39% from 2276 cases in 2004 to 1389 in 2005. 1123 were males (out of 1389 deaths) and 266 were female victims (Table – 1.6). 593 cases were reported in the first quarter of the year 2005 which accounted for 23.4% of the total Rail-Road accidents during the year while in 2004 699 cases were reported in the same quarter (Table – 1.9).

Table – 1 (I)

Growth in no. of Vehicles and Road Accidents in India (2001-2005)

Sl. No.	Year	Road Accidents (in thousand)	% variation over previous year	Persons injured (in thousand)	% variation over previous Year	Persons killed (in nos.)	% variation over previous Year	No. of vehicles (in thousand)	% variation over previous Year	Rate of Deaths per thousand Vehicles (Col.7/ Col.9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	2001	323.7	5.0	353.1	3.8	80,262	0.2	54,991	12.6	1.5
2.	2002	335.7	3.7	388.9	10.1	81873	2.0	58,863	7.0	1.4
3.	2003	336.4	2.0	382.9	- 1.5	84,430	0.4	66,289	12.6	1.3
4.	2004	361.3	7.4	413.9	8.1	91,376	8.2	66,289*	-	1.4
5.	2005	390.4	8.0	447.9	8.2	98,254	7.5	66289*	-	1.5

Source : For Col.9, Motor Transport Statistics of India-2002-2003, Transport Research Wing, Ministry of Road Transport & Highways, New Delhi.  
\* : data for the year 2003 is repeated in 2004 also due to non availability.



**Table — 1 (J)**  
**Incidence and Rate of Deaths Due to Road Accidents During 2005**  
**(State, UT & City-wise)**

Sl. No.	State/UT	No. of cases of Road Accidents	Total Registered Motor Vehicles as on 31.03.2005 (in 000')	No. of deaths due to Road Accidents in 2005	Rate of Accidental Deaths per 000' vehicles (Col.5 / Col.4)	Rate of Deaths (Col.5/Col.3) x100
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>STATES:</b>						
1	ANDHRA PRADESH	37289	5011	10944	2.2	29.3
2	ARUNACHAL PRADESH	237	21*	89	4.2	37.6
3	ASSAM	3656	596§	1456	2.4	39.8
4	BIHAR	3746	1121	2148	1.9	57.3
5	CHHATTISGARH	5996	1076	2325	2.2	38.8
6	GOA	1069	397	258	0.6	24.1
7	GUJARAT	18541	6508	5264	0.8	28.4
8	HARYANA	7682	2249	3282	1.5	42.7
9	HIMACHAL PRADESH	2401	268	854	3.2	35.6
10	JAMMU & KASHMIR	5669	398	857	2.2	15.1
11	JHARKHAND	2739	984§	1282	1.3	46.8
12	KARNATAKA	40273	3738	6876	1.8	17.1
13	KERALA	42295	2315§	3161	1.4	7.5
14	MADHYA PRADESH	21474	3460	5361	1.5	25.0
15	MAHARASHTRA	46586	8134	10613	1.3	22.8
16	MANIPUR	600	97	138	1.4	23.0
17	MEGHALAYA	330	73	122	1.7	37.0
18	MIZORAM	71	37	52	1.4	73.2
19	NAGALAND	53	187	42	0.2	79.2
20	ORISSA	7593	1360	2895	2.1	38.1
21	PUNJAB	2152	3308	1622	0.5	75.4
22	RAJASTHAN	23115	3488	6793	1.9	29.4
23	SIKKIM	189	14	77	5.5	40.7
24	TAMIL NADU	75480	8005	13961	1.7	18.5
25	TRIPURA	662	57§	204	3.6	30.8
26	UTTAR PRADESH	14689	5928	9860	1.7	67.1
27	UTTARANCHAL	1332	447	869	1.9	65.2
28	WEST BENGAL	12181	2366	4364	1.8	35.8
	<b>TOTAL (STATES):</b>	<b>378100</b>	<b>61643</b>	<b>95769</b>	<b>1.6</b>	<b>25.3</b>
<b>UNION TERRITORIES:</b>						
29	A & N ISLANDS	206	28§	23	0.8	11.2
30	CHANDIGARH	528	386**	134	0.3	25.4
31	D & N HAVELI	127	13*	55	4.2	43.3
32	DAMAN & DIU	57	44	24	0.5	42.1
33	DELHI (UT)	9580	3877§	2023	0.5	21.1
34	LAKSHADWEEP	0	5	0	0.0	-
35	PONDICHERRY	1780	293	226	0.8	12.7
	<b>TOTAL (UTs):</b>	<b>12278</b>	<b>4646</b>	<b>2485</b>	<b>0.5</b>	<b>20.2</b>
	<b>TOTAL (ALL INDIA):</b>	<b>390378</b>	<b>66289</b>	<b>98254</b>	<b>1.5</b>	<b>25.2</b>

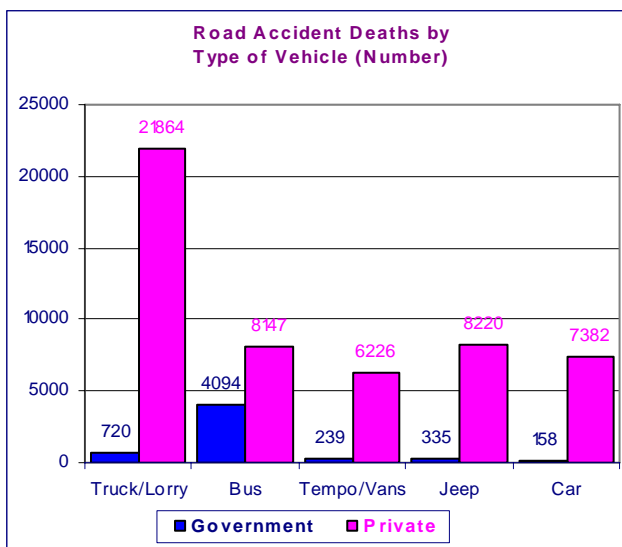
**Source:** For column 4 - 'Motor Transport Statistics of India 2002-2003' report of Transport Research wing, Ministry of Road Transport & Highways, New Delhi.

**Note:** \* - Data relates to 1996-97; \*\* - Data relates to 1997-98;  
§ - Data relates to the year 1999-2002.

The rate of Road Accident Deaths per thousand registered motor vehicles in each State/UT is presented in **Table-1(J)**. It is observed that the

rate of Accidental Deaths per thousand vehicles was highest in Sikkim at 5.5 followed by D & N Haveli 4.2, Arunachal Pradesh 4.2, Tripura 3.6 and Himachal Pradesh 3.2 as compared to 1.5 at the National level although the States of Maharashtra and Tamil Nadu had the highest and the second highest number of registered vehicles in the country. The rate of deaths per 100 cases of road accidents was highest in Nagaland (79.2) followed by Punjab (75.4) compared to 25.2 at the National level.

**Figure 1.6**



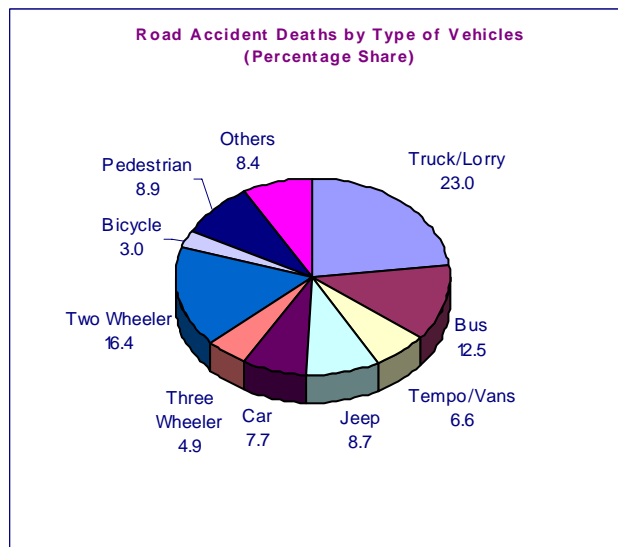
**Fatal Road Accidents**

Tamil Nadu and Maharashtra have accounted for 19.3 per cent and 11.9 per cent respectively of total 'Road Accident' cases in the country. Tamil Nadu and Andhra Pradesh have reported 14.2 per cent and 11.1 per cent respectively of total Road Accident Deaths in the country.

83,209 males and 15,045 females totaling 98,254 were killed during the year, while travelling by various modes of transport on roads. 22,584 persons (23.0%) of these were

occupants of 'Truck or Lorry', 16,109 (16.4%) were riding on 'Two-wheelers', 12,241 (12.5%) were killed while traveling in buses and 8,762 (8.9%) were pedestrians [Table (1.7) & (1.8)].

**Figure 1.7**



Although break-up of total Government and Private vehicles are not available, it is pertinent to note that 96.8 per cent victims of 'Truck/Lorry' 66.6 per cent of 'Buses', 96.3 per cent of 'Tempo/Vans' and 96.9 per cent of 'Jeeps and Cars' involved in accidents, were traveling in private vehicles.

The number of persons who died of 'Truck/Lorry' accidents was highest in Andhra Pradesh (14.2%) followed by Tamil Nadu (13.8%). 24.6% of 'Bus victims', 24.0% of 'Tempo/Van victims', 22.2% of 'Car victims' were killed in Tamil Nadu only. 28.4% of 'Three Wheeler' victims were from Andhra Pradesh only. 17.3% 'Jeep' victims', 15.1% 'Two Wheeler victims' and 14.0% Pedestrian were from Maharashtra alone.

**Table — 1 (K)**  
**Sex wise Road Accident Deaths by Type of Vehicle during 2005**

Sl. No.	Type of Vehicle	Number of Road Accidental Deaths			
		Male	Female	Total	%share of total vehicles
(1)	(2)	(3)	(4)	(5)	(6)
<b>1</b>	<b>Truck/Lorry</b>	<b>19605</b>	<b>2979</b>	<b>22584</b>	<b>23.0</b>
	Government	630	90	720	0.7
	Private	18975	2889	21864	22.3
<b>2</b>	<b>Bus</b>	<b>9961</b>	<b>2280</b>	<b>12241</b>	<b>12.5</b>
	Government	3385	709	4094	4.2
	Private	6576	1571	8147	8.3
<b>3</b>	<b>Tempo/Vans</b>	<b>5376</b>	<b>1089</b>	<b>6465</b>	<b>6.6</b>
	Government	161	78	239	0.2
	Private	5215	1011	6226	6.3
<b>4</b>	<b>Jeep</b>	<b>7167</b>	<b>1388</b>	<b>8555</b>	<b>8.7</b>
	Government	292	43	335	0.3
	Private	6875	1345	8220	8.4
<b>5</b>	<b>Car</b>	<b>6244</b>	<b>1296</b>	<b>7540</b>	<b>7.7</b>
	Government	133	25	158	0.2
	Private	6111	1271	7382	7.5
6	Three Wheeler	3932	867	4799	4.9
<b>7</b>	<b>Two Wheeler</b>	<b>14016</b>	<b>2093</b>	<b>16109</b>	<b>16.4</b>
8	Bicycle	2735	188	2923	3.0
<b>9</b>	<b>Pedestrian</b>	<b>7121</b>	<b>1641</b>	<b>8762</b>	<b>8.9</b>
10	Others	7052	1224	8276	8.4
	<b>Total</b>	<b>83209</b>	<b>15045</b>	<b>98254</b>	<b>100.0</b>

#### Traffic Accidents By Month & Time of Occurrence

As per **Table 1.9**, a total of 1,14,144 'Traffic Accidents' were reported in the 2<sup>nd</sup> quarter of the year accounting for 27.5 per cent (out of 414397) of total traffic accidents during the year. The month-wise break-up of accidents for each State/UT/City are presented in **Table-1.12**.

The month-wise distribution of 'Road Accidents' has also shown more accidents during May (40,126) and March (36,287) sharing 10.3 per cent and 9.3 per cent respectively. Maximum 'Rail-Road Accidents' occurred during the month of June and August (247 Each). The maximum numbers of 'Other Railway Accidents' were reported during the months of June (1962) and October (1900) [**Table (1.12)**]

Tamil Nadu, which accounted for the maximum (19.3%) Road Accidents in the country has also reported the maximum number of Road Accidents during each month of the year at national level. Delhi has reported the maximum number of 'Road Accidents' among UTs which is 2.5% at the National level. West Bengal has

reported 44.5 per cent of 'Rail-Road accidents' in the country.

A total of 7,495 (out of 21,482) accidents accounting for 34.9% of 'Railway Accidents' (other than 'Rail-Road accidents') were reported from Maharashtra only followed by Uttar Pradesh 2252, (10.5%). Delhi is the only UT which has recorded such accidents. A total of 807 such accidents were reported in Delhi UT. [**Table (1.12)**]

The distribution of 'Traffic Accidents' in each State/UT/City during the 8 classified time periods (Prahara) of the day is presented in **Table 1.13**. Maximum 'Road Accidents' (63,565) were reported during 3 p.m. to 6 p.m. (16.3%), 62,915 cases during office hour i.e., 9 a.m. to 12 noon. (16.1%) and least number (28,387) of these accidents (7.3%) were reported during 12 O' clock to 3 AM in the night. The maximum Rail-Road Accidents were reported during 9 AM 1200 noon to (16.6%). The maximum number of 'Other Railway Accidents' (15.7%) were also reported during 9 A.M to 1200 noon. [**Table (1.13)**]

## Accidental Deaths in Cities

The term 'mega city' refers to cities which have a population of over 10 lakhs. Mumbai has reported the maximum number of 'Accidental Deaths' (9468) followed by Delhi (6670) accounting for 21.7 per cent and 15.3 per cent respectively. The rate of 'Accidental Deaths' was highest in Surat (66.6) followed by Nasik (65.7) as compared to average rate for the cities (40.4). Mumbai's share (21.7%) of Accidental Deaths among cities was higher than that of Maharashtra (17.9%) at the national level [Table (1.2)].

Evidently, average rate of Accidental Deaths in cities (40.4) was higher than the All-India rate (26.7). Except eleven cities viz. Agra, Amritsar, Asansol, Bhopal, Coimbatore, Hyderabad,

Kolkata, Lucknow, Ludhiana, Madurai and Patna all other 24 cities have reported higher rate of 'Accidental Deaths' than the National average. It is also interesting to note that 23 out of 35 cities have reported higher rate of 'Accidental Deaths' as compared to their parent State's rate. The same is reflected in **Table 1(L)**.

Kolkata, the second largest city in terms of population (12.3% of the population of all mega cities) among 35 cities after Mumbai (15.2%), reported the comparatively lower accidental death rate of 9.1. The lowest accidental death rate was reported from Patna 3.3. The comparative reporting of 'Accidental Deaths' during 2005 in the top four-mega cities is presented in **Table 1(M)**.

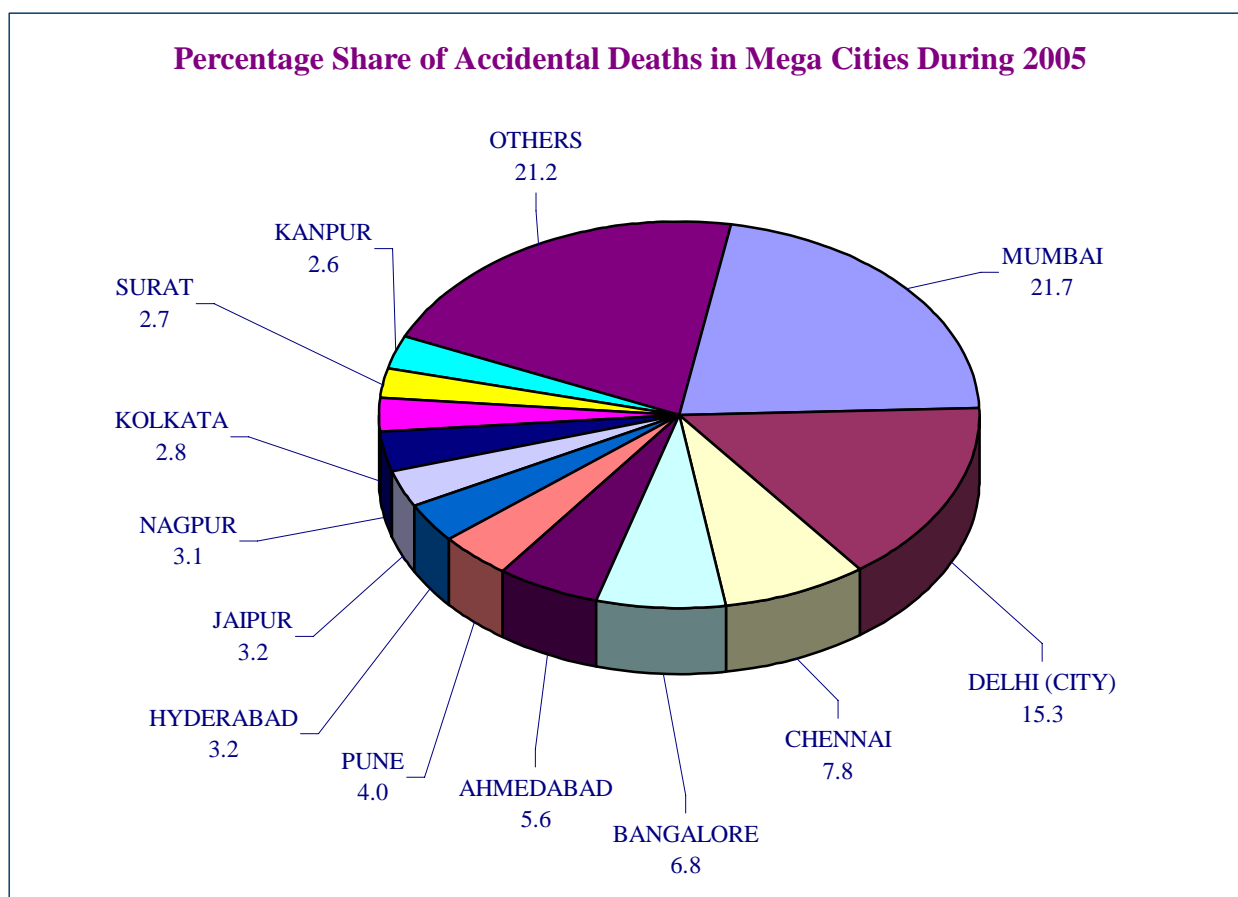
**Table – 1 (L)**  
**Rate of Accidental Deaths in Cities**  
**(with rate higher than parent state) during 2005**

Sl. No.	City	Rate in City	Rate in Parent State
(1)	(2)	(3)	(4)
1.	Mumbai	57.8	51.0
2.	Nagpur	63.7	51.0
3.	Nasik	65.7	51.0
4.	Delhi (City)	52.1	46.8
5.	Ahmedabad	53.9	36.4
6.	Rajkot	66.6	36.4
7.	Surat	41.8	36.4
8.	Vadodara	37.6	36.4
9.	Jaipur	60.8	27.8
10.	Bangalore	52.3	33.2
11.	Vijayawada	51.8	30.4
12.	Vishakhapatnam	39.1	30.4
13.	Kochi	28.8	24.9
14.	Chennai	53.2	33.9
15.	Asansol	17.0	13.6
16.	Agra	15.1	13.3
17.	Allahabad	44.9	13.3
18.	Kanpur	42.5	13.3
19.	Meerut	53.1	13.3
20.	Lucknow	21.4	13.3
21.	Varanasi	28.8	13.3
22.	Dhanbad	39.0	13.5
23.	Jamshedpur	34.0	13.5

**Table – 1 (M)**  
**Rate of Accidental Deaths in Metropolitan Cities during 2005**

Sl. No	City	Estimated Mid-Year Population (In Lakhs)	Share of Population In Cities (percent)	Share of Deaths In Cities (percent)	Rate (No. of Deaths Per one Lakh Population)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Chennai	64.3	6.0	7.8	53.2
2.	Delhi	127.9	11.9	15.3	52.1
3.	Kolkata	132.2	12.3	2.8	9.1
4.	Mumbai	163.7	15.2	21.7	57.8

**Figure-1.8**



Out of 43,600 'Accidental Deaths', 39,660 deaths due to un-natural causes & 3,940 deaths due to causes attributable to Nature were reported from 35 cities as compared to 39,615 deaths during 2004 accounting for an increase of 10.0 per cent during the year. 16 cities out of 35 have reported a decline in accidental deaths. Figures of Lucknow city were not received in the year 2004. Ahmedabad city reported the maximum increase of 105.4% (from 1187 to 2438) while Agra city has reported the maximum decline of 57.5 per cent (from 468 to 199) in the

number of accidental deaths during the year 2005 [Table 1.3].

Though, 35 cities accounted for nearly 9.9 per cent of the country's population, they reported comparatively more deaths due to accidents (i.e. 14.8 per cent of total accidental deaths in the country) and significantly higher rate of 40.4 as compared to 26.7 at the National level. The share of deaths in cities due to causes attributable to Nature was 17.6 per cent while that due to un-natural causes was 14.6 per cent at the national level.

Accidents due to Un-Natural causes in 35 cities reported an increase of 1.9 per cent over the previous year (from 89,344 to 91052) as compared to 7.1 per cent increase at the National level (from 5,36,762 to 5,74,850). These 35 cities accounted for nearly 15.8 per cent (91,052 out of 5,74,850) of accidents due to un-natural causes in the country which rendered 11.8 per cent (55,691 out of 4,70,923) injured & 14.6 per cent (39,660 out of 2,71,760) dead. Mumbai city alone accounted for 13.9 per cent of un-natural accidents and nearly 23.0 per cent of deaths due to these accidents in 35 mega cities. **[Table (1.11)]**

Ahmedabad among 35 cities has reported the highest number of deaths by causes attributable to Nature (30.9%) followed by Delhi city (29.3%). Agra were reported 43.8% deaths due to 'Cyclone/Tornado' . 24.1% deaths in Hyderabad due to 'Starvation/Thirst'. 100.0% deaths in Pune were due to flood. 71.4% deaths in Patna were due to 'Heat Stroke'. **[Table (1.10)].**

Delhi city has accounted for 14.6 per cent of Deaths due to un-natural causes - 'Other Railway Accidents'. Jamshedpur alone shared 26.5 per cent of deaths due to Fire, Surat shared 15.7% deaths due to Falls. Rajkot and Nasik accounted for 35.8 per cent and 25.4% of 'Sudden Deaths'. 20.4% deaths in Patana were due to Poisoning.

Among Un-natural causes, the share of 'Deaths' in cities due to 'Falls' (5.7%), 'Fire' (8.6%) and 'Sudden Deaths' (10.7%) was higher than their corresponding shares of 3.4%, 7.0% and 6.8% at the national level. On the other hand, share of deaths due to 'Drowning' (4.9%), 'Poisoning' (4.3%), deaths in Traffic Accidents (30.8%) were comparatively lower at 8.7%, 7.7% and 43.5% respectively than the National level **[Table (1.11)].**

In Lucknow and Madurai, 92.1% of total un-natural accidental deaths were due to 'Road Accidents' alone. Nearly one-fifth (19.0%) Pedestrian and 18.5% deaths of Bicycle riders were reported from Delhi city alone.

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