

CHAPTER – 1

ACCIDENTAL DEATHS IN INDIA

Incidence and Rate of Accidental Deaths during the Decade (1997-2007)

The incidence of accidental deaths has shown a mixed trend during the decade 1997-2007 with an increase of 45.7% in the year 2007 as compared to 1997. The population growth during the corresponding period was 19.0% whereas the increase in the rate of accidental deaths during the same period was 22.5%. The percentage change of accidental deaths is presented in **Table-1.1**.

A total of 3,40,794 accidental deaths were reported in the country during 2007 (26,090 more than such deaths reported in 2006) showing an increase of 8.3% as compared to previous year. Correspondingly, 1.5% increase in the population and 6.8% increase in the rate of Accidental Deaths were reported during this year as compared to previous year. [**Table 1(A)**]

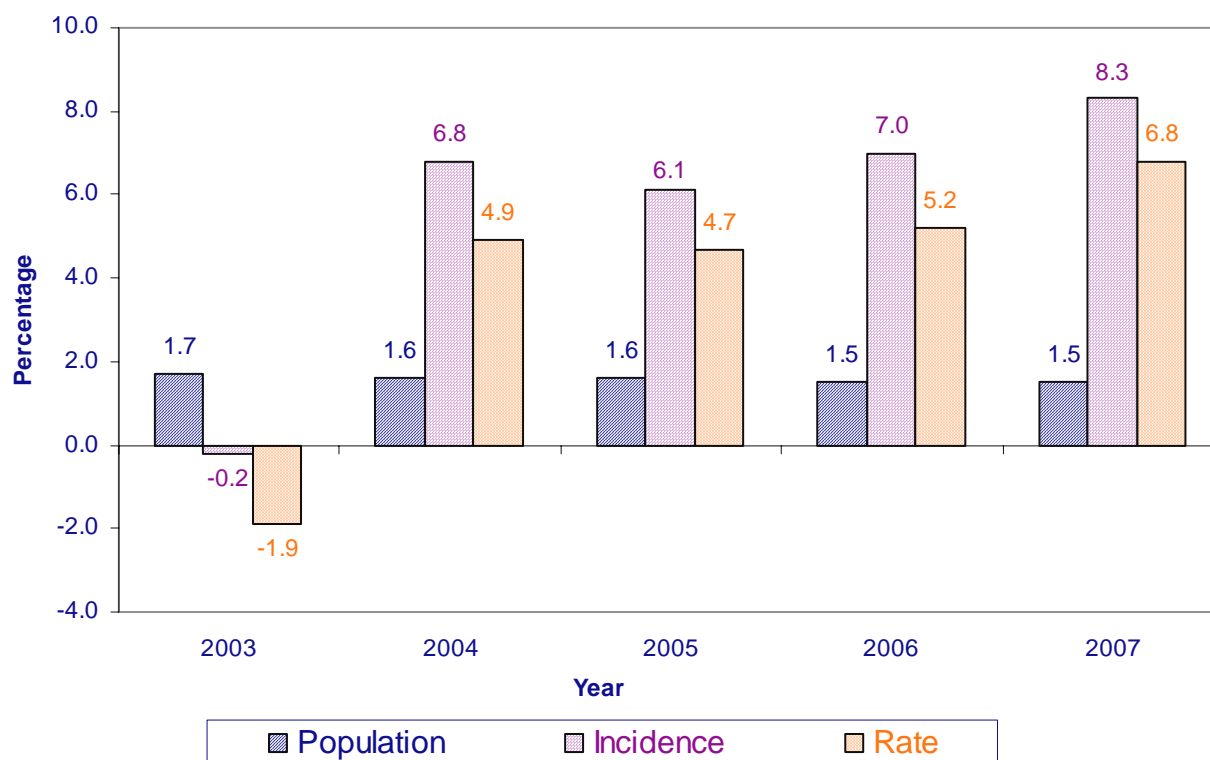
Table — 1 (A)

Percentage change in Population, Incidence and Rate of Accidental Deaths over the corresponding previous year during 2003 to 2007

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)
2003	1.7	- 0.2	- 1.9
2004	1.6	6.8	4.9
2005	1.6	6.1	4.7
2006	1.5	7.0	5.2
2007	1.5	8.3	6.8

Figure 1.1

Percentage Change in Population, Incidence and Rate of Accidental Deaths during 2003-2007 (Over Corresponding Previous Year)



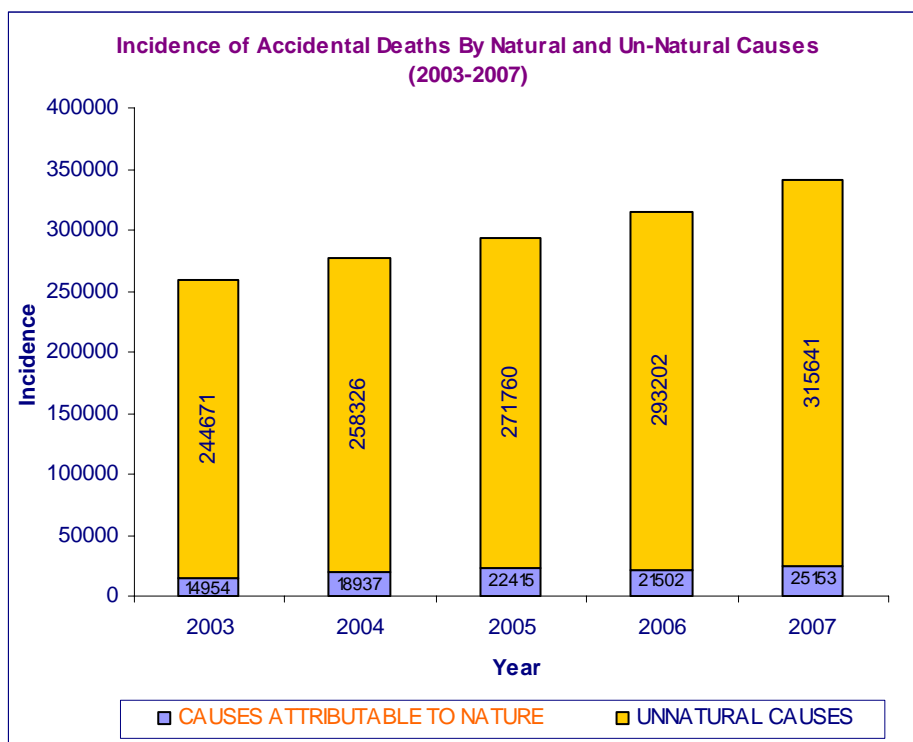
3,15,641 (92.6%) deaths were due to un-natural causes and the rest 7.4% deaths (25,153) were due to causes attributable to nature, out of total 3,40,794 accidental deaths during the year 2007. There was an increase of

17.0% in deaths due to causes attributable to nature and 7.7% in deaths due to un-natural causes as compared to 2006, resulting in an overall increase of accidental deaths by 8.3%. [Table 1(B)]

Table — 1 (B)
Incidence of Accidental Deaths by Natural & Un-Natural Causes (2003 to 2007)

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)
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
2006	21,502	-4.1	2,93,202	7.9	3,14,704	7.0
2007	25,153	17.0	3,15,641	7.7	3,40,794	8.3

Figure 1.2

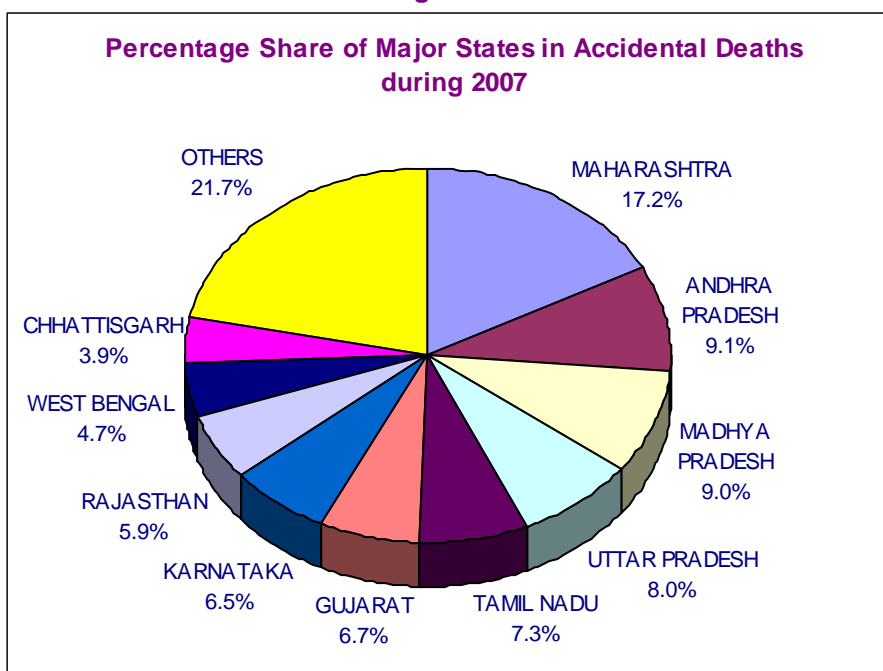


Incidence & Rate of Accidental Deaths in States, UTs and Cities (Table 1.2)

Maharashtra has reported 58,552 accidental deaths out of 3,40,794 such deaths in the country during the year and remained at the top with nearly one fifth (17.2%) of total accidental deaths reported in the country. Uttar Pradesh, the most populous State in the country with

population share of 16.6%, on the other hand, has accounted for 8.0% of accidental deaths and stood at 4th position after Maharashtra (17.2%), Andhra Pradesh (9.1%) and Madhya Pradesh (9.0%). The States of Tamil Nadu (7.3%), Gujarat (6.7%), Karnataka (6.5%) and Rajasthan (5.9%) have also reported significant shares of deaths due to accidents during 2007.

Figure 1.3



The highest **rate of accidental deaths** was reported from **D & N Haveli (104.3)** followed by Puducherry (96.8) against the National average rate of 30.0.

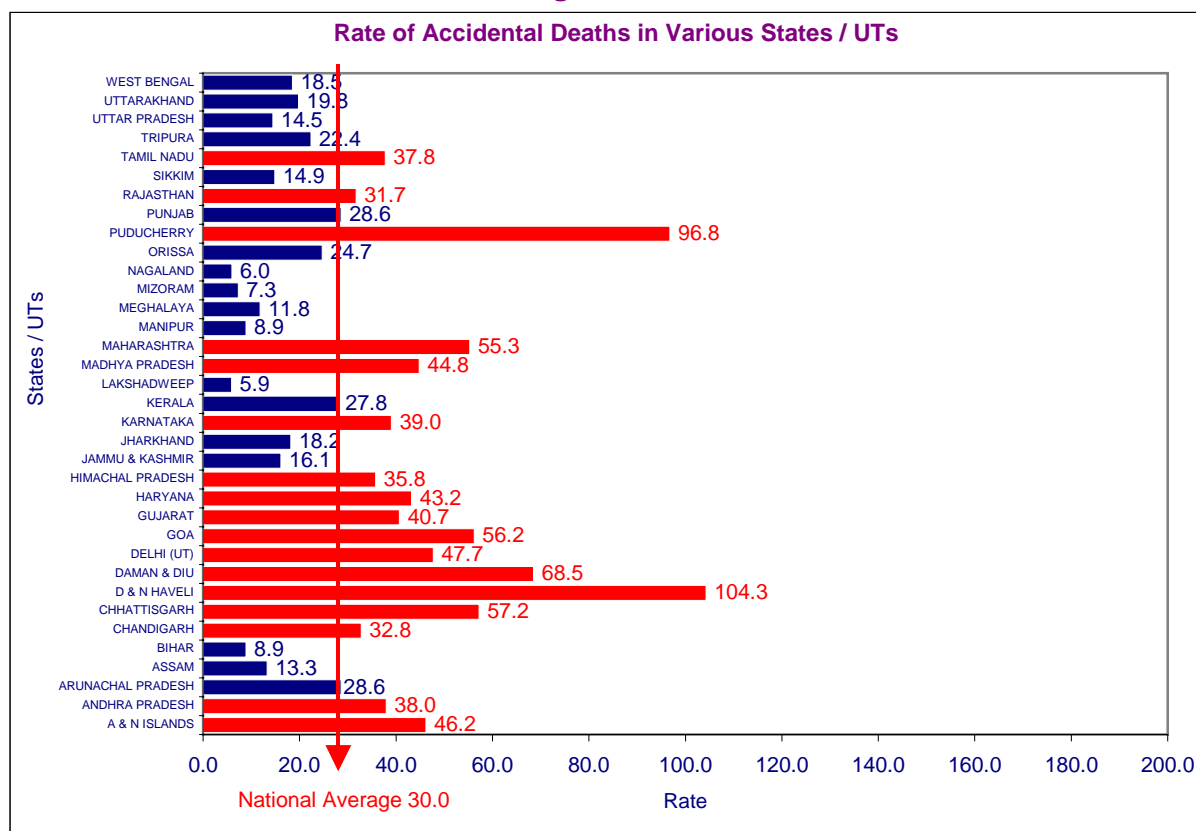
11 States & 6 UTs have constituted high risk areas reporting higher rates of 'Accidental

Deaths' than the All-India average of 30.0 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 30.0)	Sl. No.	States / UTs	Rate (less than 30.0)
1	D & N HAVELI	104.3	1	PUNJAB	28.6
2	PUDUCHERRY	96.8	2	ARUNACHAL PRADESH	28.6
3	DAMAN & DIU	68.5	3	KERALA	27.8
4	CHHATTISGARH	57.2	4	ORISSA	24.7
5	GOA	56.2	5	TRIPURA	22.4
6	MAHARASHTRA	55.3	6	UTTARAKHAND	19.8
7	DELHI (UT)	47.7	7	WEST BENGAL	18.5
8	A & N ISLANDS	46.2	8	JHARKHAND	18.2
9	MADHYA PRADESH	44.8	9	JAMMU & KASHMIR	16.1
10	HARYANA	43.2	10	SIKKIM	14.9
11	GUJARAT	40.7	11	UTTAR PRADESH	14.5
12	KARNATAKA	39.0	12	ASSAM	13.3
13	ANDHRA PRADESH	38.0	13	MEGHALAYA	11.8
14	TAMIL NADU	37.8	14	MANIPUR	8.9
15	HIMACHAL PRADESH	35.8	15	BIHAR	8.9
16	CHANDIGARH	32.8	16	MIZORAM	7.3
17	RAJASTHAN	31.7	17	NAGALAND	6.0
			18	LAKSHADWEEP	5.9

Figure 1.4



The incidence of Accidental Deaths has increased by 8.3% at National level during 2007 as compared to 2006. West Bengal has reported a major increase of 42.5% (11,331 deaths in 2006 to 16,146 deaths in 2007) followed by Nagaland (93 deaths in 2006 to 131 deaths in 2007 i.e. an increase of 40.9%) while Mizoram has shown a decline of 65.4% during 2007 as compared to 2006 (205 in 2006 to 71 in 2007). [Table (1.3)]

Males, accounting for 77.1% 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% of the total population, accidental deaths of children accounted for 6.7% 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 (60.9%) of all persons killed in accidents in country during the year. [Table (1.4)]

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

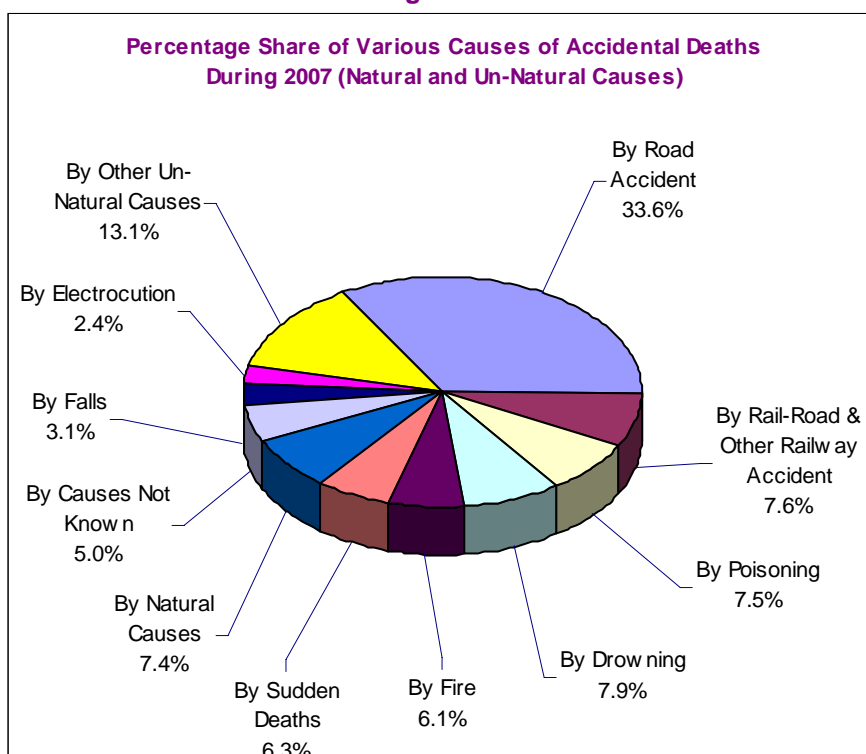
The percentage of 'Accidental Deaths' due to causes attributable to nature and those due to Un-Natural Causes were 7.4% and 92.6% respectively. The magnitude of 'Accidental Deaths' by causes attributable to nature has

increased by 17.0% and that of deaths by Un-Natural Causes has increased by 7.7% during 2007 over the year 2006.

The share of accidental deaths due to causes attributable to Nature has increased from 6.8% in 2006 to 7.4% in 2007. Share of deaths due to Un-natural causes has decreased from 93.2% in 2006 to 92.6% in 2007. The share of deaths due to causes attributable to Nature such as 'Avalanche', 'Earthquake', 'Heat Stroke', and 'Flood' and Un-Natural Causes such as 'Sudden Death due to Epileptic fits/giddiness', 'Air-crash', 'Sudden Death due to Influence of alcohol', 'Poisoning due to Spurious/poisonous liquor', 'Poisoning due to other reasons' and 'Stampede' has increased. The same has decreased due to Natural causes such as 'Torrential rains', 'Epidemic', and 'Starvation/thirst', and Un-Natural causes such as 'Sudden Death due to heart attack', 'Poisoning due to food poisoning/accidental intake of insecticides', 'Poisoning due to snakebite/animal bite', 'Suffocation', 'Explosion', 'Fire-arms' and 'Factory/machine accidents'. [Table (1D)].

The average rate of Accidental Deaths has marginally increased from 28.1 in 2006 to 30.0 in 2007.

Figure 1.5



Table—1 (D)
Incidence, Share & Rate of Accidental Deaths by Causes Attributable to Nature
and Un-Natural Causes during 2006 & 2007

Sl. No.	Cause	2006			2007			% variation of incidence in 2007 over 2006
		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)
A. CAUSES ATTRIBUTABLE TO NATURE:								
1	Avalanche	18	0.0	0.0	33	0.0	0.0	83.3
2	Cold and Exposure	694	0.2	0.1	802	0.2	0.1	15.6
3	Cyclone/Tornado	96	0.0	0.0	118	0.0	0.0	22.9
4	Starvation/Thirst	174	0.1	0.0	147	0.0	0.0	-15.5
5	Earthquake	8	0.0	0.0	14	0.0	0.0	75.0
6	Epidemic	76	0.0	0.0	47	0.0	0.0	-38.2
7	Flood	1097	0.3	0.1	1348	0.4	0.1	22.9
8	Heat Stroke	754	0.2	0.1	932	0.3	0.1	23.6
9	Landslide	274	0.1	0.0	312	0.1	0.0	13.9
10	Lightning	2387	0.8	0.2	2790	0.8	0.2	16.9
11	Torrential Rains	259	0.1	0.0	100	0.0	0.0	-61.4
12	Other causes attributable to nature	15665	5.0	1.4	18510	5.4	1.6	18.2
	Total (A)	21502	6.8	1.9	25153	7.4	2.2	17.0
B. UN-NATURAL CAUSES								
1	Air-Crash	2	0.0	0.0	11	0.0	0.0	450.0
2	Collapse of Structure:	2399	0.8	0.2	2623	0.8	0.2	9.3
	(i) House	933	0.3	0.1	1011	0.3	0.1	8.4
	(ii) Building	250	0.1	0.0	309	0.1	0.0	23.6
	(iii) Dam	34	0.0	0.0	47	0.0	0.0	38.2
	(iv) Bridge	169	0.1	0.0	171	0.1	0.0	1.2
	(v) Others	1013	0.3	0.1	1085	0.3	0.1	7.1
3	Drowning:	25571	8.1	2.3	27064	7.9	2.4	5.8
	(i) Boat Capsize	830	0.3	0.1	901	0.3	0.1	8.6
	(ii) Other Cases	24741	7.9	2.2	26163	7.7	2.3	5.7
4	Electrocution:	7619	2.4	0.7	8076	2.4	0.7	6.0
5	Explosion:	824	0.3	0.1	669	0.2	0.1	-18.8
	(i) Bomb explosion	486	0.2	0.0	270	0.1	0.0	-44.4
	(ii) Other explosion (Boilers etc.)	338	0.1	0.0	399	0.1	0.0	18.0
6	Falls:	9821	3.1	0.9	10497	3.1	0.9	6.9
	(i) Fall from Height	8259	2.6	0.7	8662	2.5	0.8	4.9
	(ii) Fall into Pit/Manhole etc.	1562	0.5	0.1	1835	0.5	0.2	17.5
7	Factory/Machine Accidents	869	0.3	0.1	836	0.2	0.1	-3.8
8	Fire:	19222	6.1	1.7	20772	6.1	1.8	8.1
	(i) Fireworks/Crackers	304	0.1	0.0	429	0.1	0.0	41.1
	(ii) Short-Circuit	962	0.3	0.1	1017	0.3	0.1	5.7
	(iii) Gas Cylinder/Stove Burst	3377	1.1	0.3	3830	1.1	0.3	13.4
	(iv) Other Fire Accidents	14579	4.6	1.3	15496	4.5	1.4	6.3
9	Fire-Arms	2161	0.7	0.2	2046	0.6	0.2	-5.3
10	Sudden Deaths:	19450	6.2	1.7	21311	6.3	1.9	9.6
	(i) Heart Attacks	12491	4.0	1.1	13184	3.9	1.2	5.5
	(ii) Epileptic Fits/Giddiness	2625	0.8	0.2	3271	1.0	0.3	24.6
	(iii) Abortions/Child Birth	759	0.2	0.1	814	0.2	0.1	7.2
	(iv) Influence of Alcohol	3575	1.1	0.3	4042	1.2	0.4	13.1
11	Killed by animals	864	0.3	0.1	1007	0.3	0.1	16.6
12	Mines or quarry disaster	409	0.1	0.0	435	0.1	0.0	6.4
13	Poisoning:	23434	7.4	2.1	25447	7.5	2.2	8.6
	(i) Food Poisoning/Accidental Intake of Insecticide	8043	2.6	0.7	8425	2.5	0.7	4.7
	(ii) Spurious/poisonous liquor	685	0.2	0.1	1251	0.4	0.1	82.6
	(iii) Leakage of poisonous gases Etc.	326	0.1	0.0	198	0.1	0.0	-39.3
	(iv) Snake Bite/Animal Bite	7945	2.5	0.7	8026	2.4	0.7	1.0
	(v) Other	6435	2.0	0.6	7547	2.2	0.7	17.3
14	Stampede	18	0.0	0.0	75	0.0	0.0	316.7
15	Suffocation	1696	0.5	0.2	1313	0.4	0.1	-22.6
16	Traffic Accidents:	131652	41.8	11.8	140560	41.2	12.4	6.8
	(i) Road Accidents	105725	33.6	9.4	114590	33.6	10.1	8.4
	(ii) Rail-Road Accidents	2353	0.7	0.2	2369	0.7	0.2	0.7
	(iii) Other Railway Accidents	23574	7.5	2.1	23601	6.9	2.1	0.1
17	Other Causes	32478	10.3	2.9	35992	10.6	3.2	10.8
18	Causes Not Known	14713	4.7	1.3	16907	5.0	1.5	14.9
	Total (B)	293202	93.2	26.2	315641	92.6	27.8	7.7
	Grand Total (A+B)	314704	100.0	28.1	340794	100.0	30.0	8.3

Causes Attributable to Nature

The age group-wise distribution of accidental deaths by causes attributable to nature is given in **Table 1.5**. Nearly 76.7% victims of causes attributable to nature were males. Age-wise, nearly 6.6% of such victims were up to 14 years of age while 54.4% were in the age-group of 15-44 years. Senior citizens (60 yrs. and above) constituted 14.7% of the total victims.

Nearly 12.3% deaths were reported from Gujarat followed by Uttar Pradesh (9.8%) and West Bengal (8.5%) (**Table-1.10**). 34.1% deaths in Uttarakhand and 20.2% deaths in Haryana and 14.4% deaths in Punjab were due to 'Cold and Exposure' only. 36.4% deaths in Nagaland were due to Starvation/thirst. 66.7% deaths in Manipur followed by 37.4% in Assam and 33.8% in Bihar were reported due to Floods, while 17.2% deaths in Punjab and 16.7% deaths in Haryana were due to 'Heat Stroke' alone. 48.1% deaths were due to 'Landslide' in Meghalaya. 55.4% deaths in Maharashtra and 42.1% deaths in Kerala were due to 'Lightning'. No deaths due to causes attributable to Nature have been reported from Goa, A & N Islands, Chandigarh, Daman & Diu, Lakshadweep and Puducherry.

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 6,36,394 cases of 'Un-Natural Accidents' caused 3,15,641 deaths and rendered 4,93,515 people injured during 2007. (Table- 1.6)**

Maharashtra accounting for 9.3% (one-eleventh) of country's population has reported almost one sixth (18.3%) of accidental deaths due to unnatural causes. Andhra Pradesh and Madhya Pradesh accounted for 9.2% deaths each during the year. (**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' (36.3%), Railway Accidents and Rail-Road accidents (8.3%), 'Drowning' (8.6%) 'Poisoning' (8.1%), 'Sudden Deaths' (6.8%) and 'Fire Accidents' (6.6%).

The number of cases of Un-natural accidents at the National level has increased by 6.7% (from 5,96,656 in 2006 to 6,36,394 in 2007) as compared to previous year. The number of persons injured has increased by 3.0% (from 4,79,294 in 2006 to 4,93,515 in 2007) and the number of persons killed in these accidents has also increased by 7.7% (from 2,93,202 in 2006 to 3,15,641 in 2007). The Accident cases due to 'Stampede' have increased by 276.5% from 17 in 2006 to 64 in 2007, while cases of 'Suffocation' have decreased by 24.4% from 1,700 in 2006 to 1,285 in 2007. [**Table (1.6)**]

The proportion of male injured and killed due to un-natural causes in the country was 81.4% and 77.2% respectively of the total such injuries and deaths (**Table-1.11**). 94.3% of injuries and 36.3% of deaths were due to Road Accidents only at the National level. Males out-numbered females in all kinds of accidental casualties except 'Fire Accidents' where 66.9% of those killed were females as compared to 33.1% males. [**Table (1.7)**]

The cause-wise analysis of un-natural deaths revealed that 76.7% deaths in Nagaland were due to 'Road Accidents', 45.9% deaths in Puducherry were attributed as Sudden Deaths, 12.4% and 8.7% deaths in Gujarat and Maharashtra were due to 'Fire Accidents', 12.4% deaths in D & N Haveli were due to 'Falls', 23.9% deaths in Goa were due to 'Drowning', 15.4% deaths in Madhya Pradesh were due to 'Poisoning'. Reasons for 26.3% deaths in Maharashtra 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 Accidental death prone areas on the basis of Percentage share of deaths
due to un-natural causes (Road Accidents and Poisoning) during 2007

Sl. No.	High Accidental death Prone Areas				
	Road Accident Deaths All-India Percentage Share = 36.3%		Sl. No.	Poisoning All-India Percentage Share = 8.1%	
	State/UT	%Share		State/UT	%Share
1	NAGALAND	76.7	1	MADHYA PRADESH	15.4
2	SIKKIM	71.2	2	ORISSA	14.2
3	JAMMU & KASHMIR	56.9	3	PUNJAB	12.7
4	MIZORAM	56.5	4	CHHATTISGARH	12.3
5	UTTARAKHAND	54.6	5	HARYANA	11.0
6	UTTAR PRADESH	50.5	6	BIHAR	10.9
7	MANIPUR	49.8	7	TAMIL NADU	10.9
8	TAMIL NADU	49.6	8	ARUNACHAL PRADESH	10.7
9	MEGHALAYA	49.4	9	WEST BENGAL	10.5
10	HIMACHAL PRADESH	49.0	10	RAJASTHAN	9.3
11	ANDHRA PRADESH	47.5	11	HIMACHAL PRADESH	8.7
12	HARYANA	45.1	12	JHARKHAND	8.5
13	ASSAM	44.0	13	SIKKIM	8.2
14	CHANDIGARH	44.0			
15	RAJASTHAN	43.5			
16	KARNATAKA	43.2			
17	BIHAR	41.0			
18	KERALA	40.6			
19	ARUNACHAL PRADESH	39.9			
20	JHARKHAND	38.5			
21	GOA	37.9			

Table – 1 (F)

High Accidental death prone areas on the basis of Percentage share of deaths due to unnatural causes (Drowning and Fire) during 2007

Sl. No.	High Accidental death Prone Areas				
	Deaths due to Drowning All-India Percentage Share = 8.6%		Sl. No.	Fire All-India Percentage Share = 6.6%	
	State/UT	%Share		State/UT	%Share
1	GOA	23.9	1	GUJARAT	12.4
2	KERALA	18.5	2	MAHARASHTRA	8.7
3	DAMAN & DIU	18.3	3	A & N ISLANDS	8.6
4	MEGHALAYA	14.9	4	D & N HAVELI	8.6
5	A & N ISLANDS	13.9	5	MADHYA PRADESH	8.5
6	MADHYA PRADESH	13.6	6	TRIPURA	8.4
7	TRIPURA	12.6	7	KARNATAKA	7.8
8	CHHATTISGARH	11.4	8	TAMIL NADU	7.8
9	ASSAM	10.8	9	JHARKHAND	7.7
10	GUJARAT	10.0	10	DAMAN & DIU	7.1
11	KARNATAKA	9.7			
12	D & N HAVELI	9.1			
13	ANDHRA PRADESH	9.0			
14	RAJASTHAN	9.0			
15	MAHARASHTRA	8.9			
16	PUDUCHERRY	8.6			

Table – 1 (G)

High Prone areas on the basis of Percentage share of deaths due to unnatural causes (Rail Road & Railways Accidents) during 2007

Sl. No.	High Accidental death Prone Areas	
	Rail-Road & Railways Accidental Deaths All-India Percentage Share = 8.3%	
	State/UT	%Share
1	WEST BENGAL	20.8
2	BIHAR	19.4
3	DELHI (UT)	13.7
4	UTTAR PRADESH	13.1
5	JHARKHAND	12.9
6	PUNJAB	12.4
7	ASSAM	12.1
8	HARYANA	11.3
9	MAHARASHTRA	9.0

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 6.1% during 2007 compared to 2006 [Table (1.6)]. The casualties in Road Accidents in the country have increased by 8.4% during 2007 as compared to 2006. Their proportion in total deaths due to Un-natural causes, however, remained almost static at 36.3% in 2007. The following statistics reveal the growing magnitude of 'Road Accidental Deaths'. [Table 1(H)] A total of 4,48,235 'Traffic Accidents' were reported during the year comprising of 4,18,657 'Road Accidents', 1,873 'Rail-Road Accidents' and 27,705 'Other Railway Accidents'. These accidents caused 1,14,590, 2,369 and 23,601 deaths respectively during the year. [Table (1.6)]

Road Accident Deaths

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

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 increased marginally from 1.3 in 2003 to 1.6 in 2007 though the number of vehicles in the country and the quantum of 'Road Accidents' have increased.

Railway Accidents & Rail-Road Accidents

1,873 cases of Rail-road accidents were reported during the year 2007 which shows a decrease of 33.8% over 2006 where 2,829 cases were reported. The cases of deaths due to Rail-Road accidents have marginally increased by 0.7% from 2,353 cases in 2006 to 2,369 in 2007. 1,933 victims (out of 2369 deaths) were males and 436 were females. [Table–1.6] 522 cases were reported in the third quarter of the year 2007 which accounted for 27.9% of the total Rail-Road accidents during the year while in 2006, 580 cases were reported in the same quarter. [(Table–1.9)]

Table – 1 (H)

Share of 'Road Accident Deaths' in Total 'Accidental Deaths' by Un-natural Causes during 2003 to 2007

Sl. No.	Year	Number of Accidental Deaths		Percentage share of 'Road Accident' Deaths in Un-Natural Total Deaths
		Road Accidents	Total Un-natural	
(1)	(2)	(3)	(4)	(5)
1	2003	84,430	2,44,671	34.5
2	2004	91,376	2,58,326	35.2
3	2005	98,254	2,71,760	36.2
4	2006	1,05,725	2,93,202	36.1
5	2007	1,14,590	3,15,641	36.3

Table – 1 (I)

Growth in No. of Vehicles and Road Accidents in India (2003-2007)

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	2003	336.4	2.0	382.9	- 1.5	84,430	0.4	66,289	12.6	1.3
2	2004	361.3	7.4	413.9	8.1	91,376	8.2	66,289*	-	1.4
3	2005	390.4	8.0	447.9	8.2	98,254	7.5	66,289*	-	1.5
4	2006	394.4	1.0	452.9	1.1	1,05,725	7.6	72,718 [@]	9.7	1.5
5	2007	418.6	6.1	465.3	2.7	1,14,590	8.4	72,718 ^{@#}	-	1.6

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.

@ as per latest data of Ministry of Road Transport & Highways (2004 - 05).

: data for the year 2006 is repeated in 2007 due to non availability.

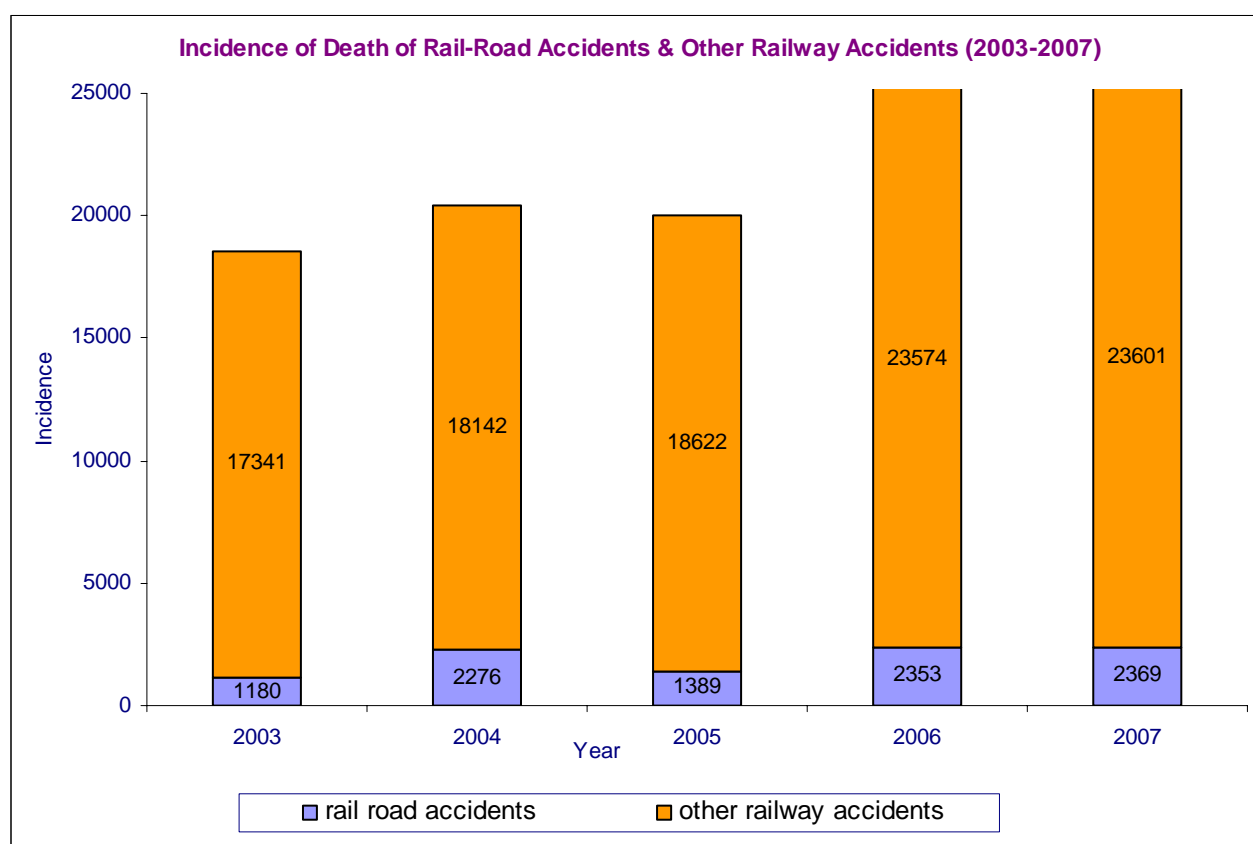


Table — 1 (J)
Incidence and Rate of Deaths due to Road Accidents During 2007
(State/UT wise)

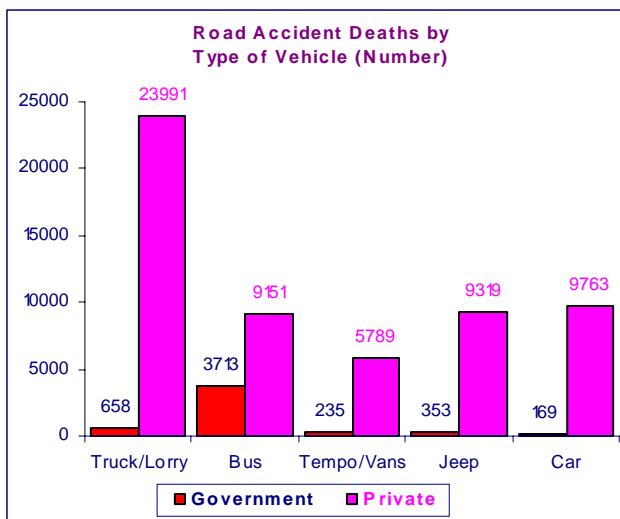
Sl. No.	State/UT	No. of cases of Road Accidents	Total Registered Motor Vehicles as on 31.03.2007# (in 000')	No. of deaths due to Road Accidents in 2007	Rate of Accidental Deaths per 000' vehicles (Col.5 / Col.4)	Rate of Deaths (Col.5/Col.3) × 100
(1)	(2)	(3)	(4)	(5)	(6)	(7)
STATES:						
1	ANDHRA PRADESH	43594	5720	13762	2.4	31.6
2	ARUNACHAL PRADESH	230	21*	108	5.1	47.0
3	ASSAM	3995	727	1604	2.2	40.2
4	BIHAR	5631	751	2804	3.7	49.8
5	CHHATTISGARH	7837	1216	2932	2.4	37.4
6	GOA	4022	436	340	0.8	8.5
7	GUJARAT	21433	7087	6293	0.9	29.4
8	HARYANA	10316	2548	4376	1.7	42.4
9	HIMACHAL PRADESH	2582	289	997	3.4	38.6
10	JAMMU & KASHMIR	5874	439	952	2.2	16.2
11	JHARKHAND	4504	1217	1760	1.4	39.1
12	KARNATAKA	46334	3977	8762	2.2	18.9
13	KERALA	39861	2792	3802	1.4	9.5
14	MADHYA PRADESH	28444	3804	6346	1.7	22.3
15	MAHARASHTRA	51975	8969	12616	1.4	24.3
16	MANIPUR	538	106	114	1.1	21.2
17	MEGHALAYA	157	73^	133	1.8	84.7
18	MIZORAM	52	42	35	0.8	67.3
19	NAGALAND	75	172	92	0.5	122.7
20	ORISSA	8214	1525	3058	2.0	37.2
21	PUNJAB	2391	3529	2155	0.6	90.1
22	RAJASTHAN	23885	3834	8145	2.1	34.1
23	SIKKIM	150	17	52	3.1	34.7
24	TAMIL NADU	59117	8575	12036	1.4	20.4
25	TRIPURA	801	76	223	2.9	27.8
26	UTTAR PRADESH	18031	6460	12555	1.9	69.6
27	UTTARAKHAND	1522	516	973	1.9	63.9
28	WEST BENGAL	13954	2548	4919	1.9	35.3
	TOTAL (STATES):	405519	67466	111944	1.7	27.6
UNION TERRITORIES:						
29	A & N ISLANDS	152	28+	23	0.8	15.1
30	CHANDIGARH	536	586	151	0.3	28.2
31	D & N HAVELI	116	35	66	1.9	56.9
32	DAMAN & DIU	60	48	29	0.6	48.3
33	DELHI (UT)	10528	4237	2122	0.5	20.2
34	LAKSHADWEEP	2	5	0	0.0	0.0
35	PUDUCHERRY	1744	313	255	0.8	14.6
	TOTAL (UTs):	13138	5252	2646	0.5	20.1
	TOTAL (ALL INDIA):	418657	72718	114590	1.6	27.4

Source: # For column 4 - 'Motor Transport Statistics of India 2004-2005' report of Transport Research wing, Ministry of Road Transport & Highways, New Delhi.

Note : * - Data relates to 1996-97; + - Data relates to 2001-02;
 ^ - Data relates to the year 2002-03.

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 Arunachal Pradesh at 5.1 followed by Bihar 3.7, Himachal Pradesh, 3.4 and Sikkim 3.1 as compared to 1.6 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 (122.7) followed by Punjab (90.1) compared to 27.4 at the National level.

Figure 1.6



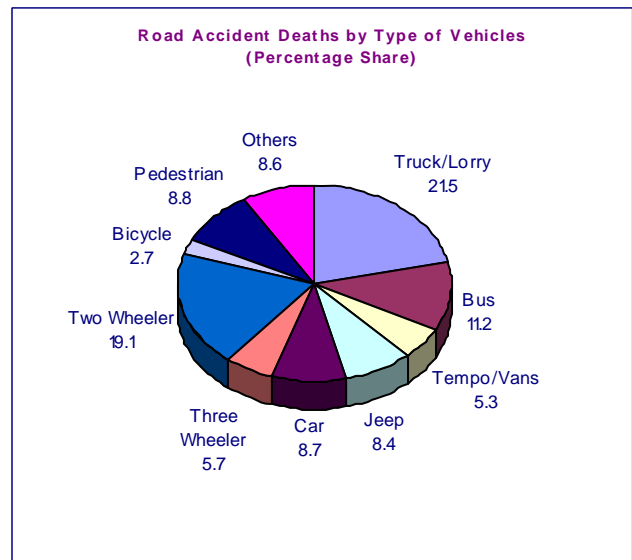
Fatal Road Accidents

Tamil Nadu and Maharashtra have accounted for 14.1% and 12.4% respectively of total 'Road Accident' cases in the country. Andhra Pradesh, Maharashtra and Uttar Pradesh have reported 12%, 11.0% and 11.0% respectively of total Road Accident Deaths in the country.

97,398 males and 17,192 females totaling 1,14,590 persons were killed during the year 2007, while traveling by various modes of

transport on roads. 24,649 persons (21.5%) of these were occupants of 'Truck or Lorry', 21,872 (19.1%) were riding on 'Two-wheelers', 12,864 (11.2%) were killed while traveling in buses and 10,125 (8.8%) 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 97.3% victims of 'Truck/Lorry', 71.1% of 'Buses', 96.0% of 'Tempo/Vans' and 97.3% 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 (13.5%) followed by Tamil Nadu (11.3%). 19.9% of 'Bus victims' and 22.9% of 'Car victims' were from Tamil Nadu only. 17.1% of 'Tempo/Van victims' and 17.3% 'Jeep' victims were from Uttar Pradesh, 31.7% of 'Three Wheeler' victims were from Andhra Pradesh, 15.4% 'Two Wheeler victims' and 17.3% Pedestrian victims were from Maharashtra alone.

Table — 1 (K)
Sex wise Road Accident Deaths by Type of Vehicle during 2007

Sl. No.	Type of Vehicle	Number of Road Accidental Deaths			%share of total vehicles
		Male	Female	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1	Truck/Lorry	21589	3060	24649	21.5
	Government	552	106	658	0.6
	Private	21037	2954	23991	20.9
2	Bus	10547	2317	12864	11.2
	Government	3000	713	3713	3.2
	Private	7547	1604	9151	8.0
3	Tempo/Vans	4928	1096	6024	5.3
	Government	190	45	235	0.2
	Private	4738	1051	5789	5.1
4	Jeep	8029	1643	9672	8.4
	Government	294	59	353	0.3
	Private	7735	1584	9319	8.1
5	Car	8301	1631	9932	8.7
	Government	140	29	169	0.1
	Private	8161	1602	9763	8.6
6	Three Wheeler	5322	1156	6478	5.7
7	Two Wheeler	19082	2790	21872	19.1
8	Bicycle	2870	235	3105	2.7
9	Pedestrian	8351	1774	10125	8.8
10	Others	8379	1490	9869	8.6
	Total	97398	17192	114590	100.0

Traffic Accidents by Month & Time of Occurrence

As per **Table 1.9**, a total of 1,19,260 'Traffic Accidents' were reported in the 2nd quarter of the year accounting for 26.7% (out of 4,48,235) 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 (39,036) and April (37,629) sharing 9.3% and 9.0% respectively. Maximum 'Rail-Road Accidents' occurred during the month of August (198). The maximum number of 'Other Railway Accidents' were reported during the months of May (2,491) and October (2,451). [**Table (1.12)**]

Tamil Nadu and Maharashtra which accounted for the maximum (14.1%) and (12.4%) Road Accidents in the country have 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 alone has reported 56.7% of 'Rail-Road accidents' in the country.

A total of 8,521 (out of 27,705) accidents accounting for 30.8% of 'Railway Accidents' (other than 'Rail-Road accidents') were reported from Maharashtra alone followed by Uttar Pradesh 2,585 (9.3%). Delhi and Puducherry are the only UTs which have recorded such accidents. A total of 905 and 6 such accidents were reported in Delhi and Puducherry UTs respectively. [**Table (1.12)**]

The distribution of 'Traffic Accidents' in each State/UT/City during the 8 classified time periods (Pahar) of the day is presented in **Table 1.13**. Maximum 'Road Accidents' (65,815) were reported during 3 p.m. to 6 p.m. (15.7%), 64,203 cases during 6 p.m. to 9 p.m. (15.3%), and least number (32,442) of these accidents (7.7%) were reported during 12 O' clock to 3 AM in the night. **The maximum 'Rail-Road Accidents' were reported during 9 AM to 12 O' clock (14.2%). The maximum number of 'Other Railway Accidents' (16.2%) 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 as per 2001 census. Mumbai has reported the maximum number of 'Accidental Deaths' (8,897) followed by Delhi (7,232) accounting for 17.6% and 14.3% respectively of the total accidental deaths reported by 35 mega cities. The rate of 'Accidental Deaths' was highest in Pune (89.4) followed by Nasik (77.6) as compared to average rate for the cities (46.9). Mumbai's share (17.6%) of accidental deaths among cities was marginally higher than that of Maharashtra (17.2%) at the national level. [Table (1.2)]

Evidently, average rate of accidental deaths in cities (46.9) was higher than the All-India rate (30.0). Except six cities viz. Amritsar, Dhanbad, Kolkata, Lucknow, Madurai and Patna all other 29 cities have reported higher rate of 'accidental deaths' than the National average. It is also interesting to note that 27 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 lowest accidental death rate of 6.2. The comparative reporting of 'accidental deaths' during 2007 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 2007

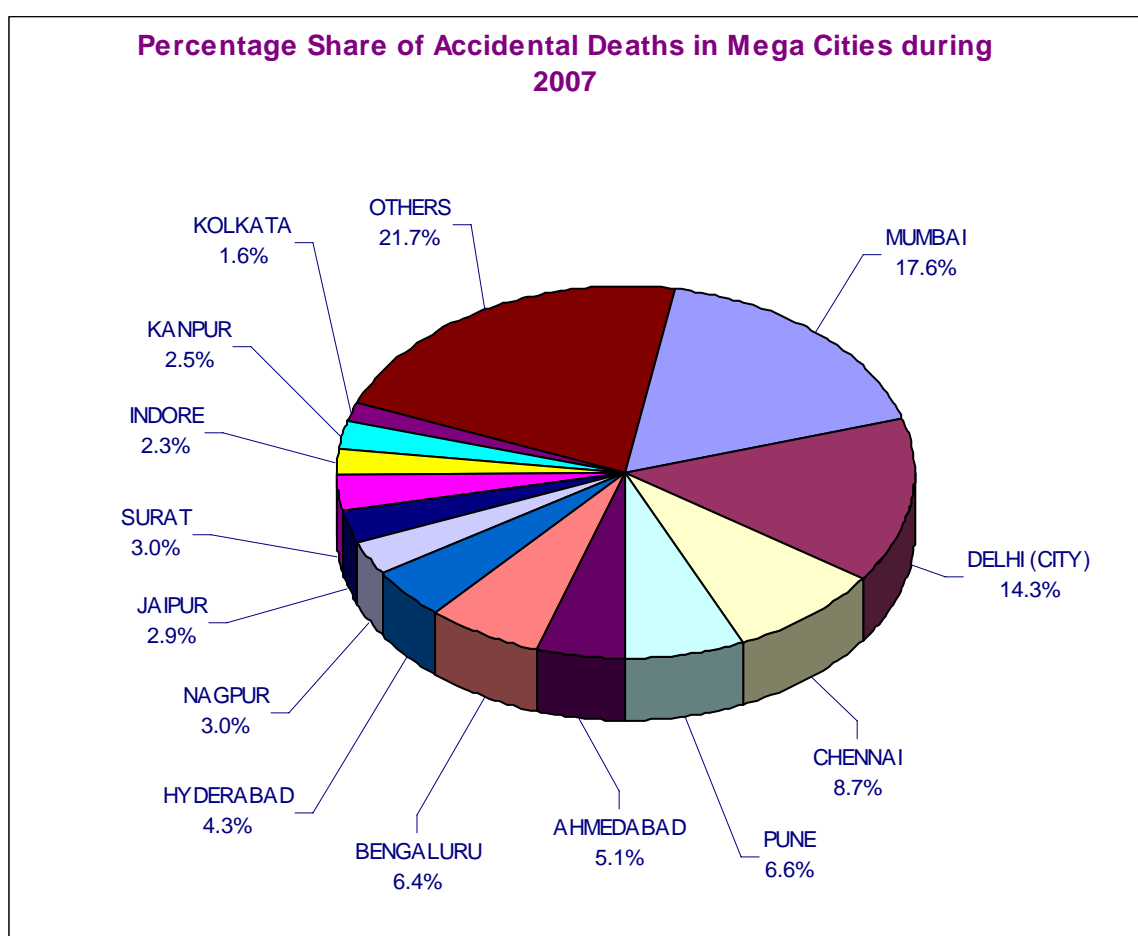
SI. No.	City	Rate in City	Rate in Parent State
(1)	(2)	(3)	(4)
1	PUNE	89.4	55.3
2	NASIK	77.6	55.3
3	NAGPUR	72.3	55.3
4	DELHI (CITY)	56.5	47.7
5	INDORE	70.0	44.8
6	FARIDABAD	59.2	43.2
7	RAJKOT	73.6	40.7
8	AHMEDABAD	56.7	40.7
9	SURAT	53.4	40.7
10	BENGALURU	57.2	39.0
11	VIJAYAWADA	58.8	38.0
12	VISHAKHAPATNAM	47.0	38.0
13	HYDERABAD	39.4	38.0
14	CHENNAI	68.3	37.8
15	COIMBATORE	38.0	37.8
16	JAIPUR	62.0	31.7
17	LUDHIANA	30.0	28.6
18	KOCHI	31.8	27.8
19	ASANSOL	37.9	18.5
20	JAMSHEDPUR	34.0	18.2
21	MEERUT	64.0	14.5
22	KANPUR	47.7	14.5
23	AGRA	46.9	14.5
24	ALLAHABAD	39.1	14.5
25	VARANASI	33.8	14.5
26	LUCKNOW	29.0	14.5
27	PATNA	21.9	8.9

Table – 1 (M)

Rate of Accidental Deaths in Metropolitan Cities during 2007

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	8.7	68.3
2.	Delhi	127.9	11.9	14.3	56.5
3.	Kolkata	132.2	12.3	1.6	6.2
4.	Mumbai	163.7	15.2	17.6	54.4

Figure – 1.8



45,955 deaths due to un-natural causes & 4,604 deaths due to causes attributable to Nature were reported from 35 cities out of total 50,559 'accidental deaths' as compared to 46,304 deaths during 2006 accounting for an increase of 9.2% during the year. 10 cities out of 35 have reported a decline in accidental deaths. Asansol city reported the maximum increase of 80.3% (from 229 to 413) while Dhanbad city has reported the maximum decline of 20.6% (from 160 to 127) in the

number of accidental deaths during the year 2007. [Table 1.3]

Though 35 cities accounted for nearly 9.5% of the country's population, they reported comparatively more deaths due to accidents (i.e. 14.8% of total accidental deaths in the country) and significantly higher rate of 46.9 as compared to 30.0 at the National level. The share of deaths in cities due to causes attributable to Nature was 18.3% while that due to un-natural causes was 14.6% at the national level.

Accidents due to Un-Natural causes in 35 cities reported an increase of 9.2% over the previous year (from 93,969 to 1,02,629) as compared to 6.7% increase at the National level (from 5,96,656 to 6,36,394). These 35 cities accounted for nearly 16.1% (1,02,629 out of 6,36,394) of accidents due to un-natural causes in the country which rendered 12.9% (63,871 out of 4,93,515) injured & 14.6% (45,955 out of 3,15,641) dead. The highest number of un-natural accidents were reported in Delhi city (12.8%) and the maximum number of deaths reported in Mumbai city (19.4%) amongst the 35 mega cities. **[Table (1.11)]**

Delhi city among 35 cities has reported the highest number of deaths by causes attributable to Nature (36.2%) followed by Ahmedabad city (27.8%) and Hyderabad city (12.5%). 100% such deaths in Lucknow were due to 'Cold and Exposure'. All such deaths in Nagpur were due to Flood. 73.3% deaths in Vijayawada were due to 'Heat Stroke'. 50.0% such deaths in Mumbai were due to 'Landslide'. 100% deaths reported in Bhopal, Kochi and Rajkot were due to 'Lightning'. **[Table (1.10)]**

18.7% and 14.7% of deaths due to un-natural causes in Vijayawada and Kochi respectively

were due to 'Drowning'. 16.1% and 15.1% respectively of un-natural deaths were due to 'Falls' in Madurai and Surat. 27.3% and 25.1% such deaths were due to 'Fire' in Rajkot and Jamshedpur. 17.3% such deaths in Meerut were due to 'Fire-Arms'. 'Sudden Deaths' accounted for 35.0% and 29.3% respectively of un-natural deaths in Rajkot and Nasik. Deaths due to 'Poisoning' accounted for 21.7% in Asansol, whereas 12.2% such deaths in Indore city were due to 'Suffocation'.

Among Un-natural causes, the share of 'Deaths' in cities due to 'Falls' (5.7%), 'Fire' (8.2%) and 'Sudden Deaths' (11.8%) was higher than their corresponding shares of 3.3%, 6.6% and 6.8% respectively at the national level. Share of deaths due to 'Drowning' (4.6%), 'Poisoning' (4.0%), deaths in Traffic Accidents (30.4%), on the other hand, were comparatively lower than their corresponding shares of 8.6%, 8.1% and 44.5% respectively at the National level. **[Table (1.11)]**

In Agra and Lucknow 85.0% and 79.7% of total un-natural accidental deaths were due to 'Road Accidents'. Delhi city alone reported 23.1% and 14.9% deaths of Pedestrian and bicycle riders reported in the 35 mega cities during 2007.
