

CHAPTER – 1

ACCIDENTAL DEATHS IN INDIA

Incidence and Rate of Accidental Deaths during the Decade (1998-2008)

The incidence of accidental deaths has shown a mixed trend during the decade 1998-2008 with an increase of 32.5% in the year 2008 as compared to 1998. The population growth during the corresponding period was 18.8% whereas the increase in the rate of accidental deaths during the same period was 11.6%. The percentage change of accidental deaths is presented in **Table-1.1**.

A total of 3,42,309 accidental deaths were reported in the country during 2008 (1,515 more than such deaths reported in 2007) showing an increase of 0.4% as compared to previous year. Correspondingly, 1.4% increase in the population and 1.0% decrease in the rate of Accidental Deaths were reported during this year as compared to previous year. [**Table-1(A)**]

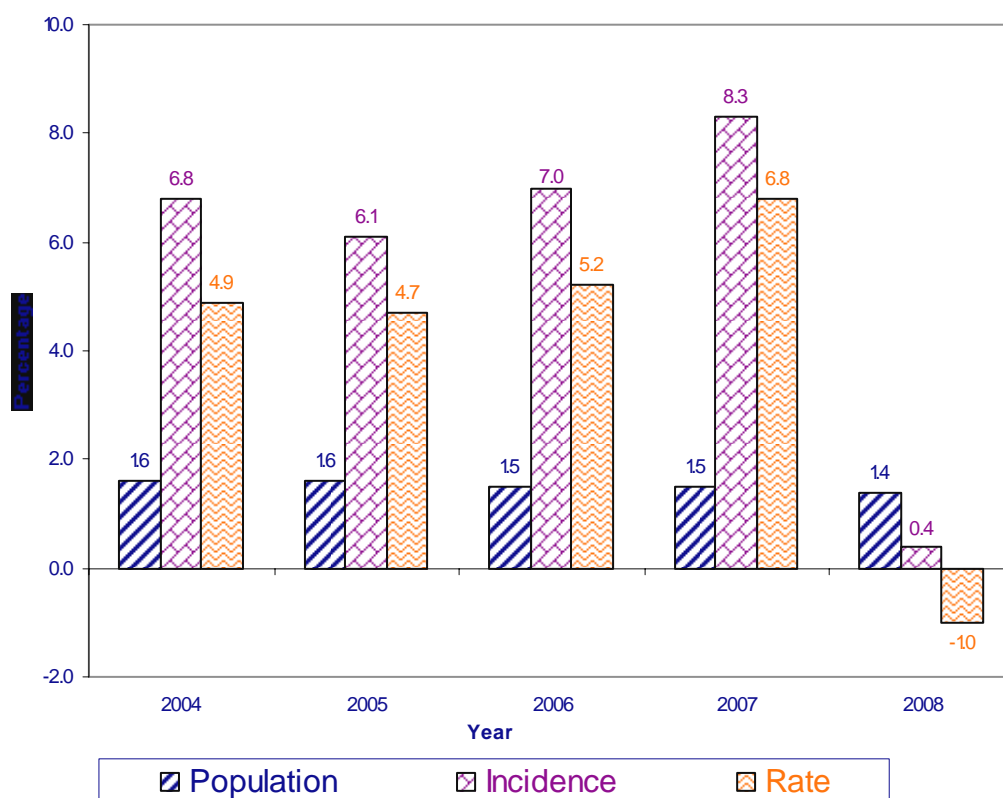
Table — 1 (A)

Percentage change in Population, Incidence and Rate of Accidental Deaths over the corresponding previous year during 2004 to 2008

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)
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
2008	1.4	0.4	-1.0

Figure 1.1

Percentage Change in Population, Incidence and Rate of Accidental Deaths during 2004-2008 (Over Corresponding Previous Year)



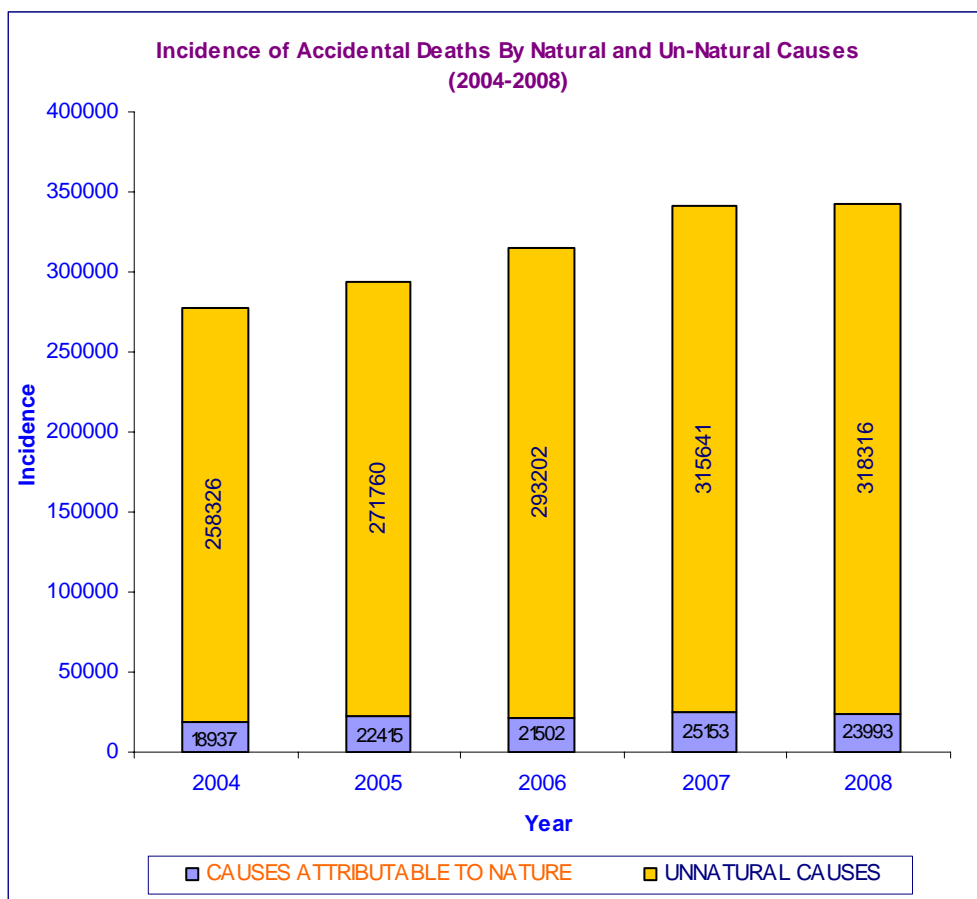
3,18,316 (93.0%) deaths were due to un-natural causes and the rest 7.0% deaths (23,993) were due to causes attributable to nature, out of total 3,42,309 accidental deaths during the year 2008. There was a decline of

4.6% in deaths due to causes attributable to nature and an increase of 0.8% in deaths due to un-natural causes as compared to 2007, resulting in an overall increase of accidental deaths by 0.4%. [Table-1(B)]

Table — 1 (B)
Incidence of Accidental Deaths by Natural & Un-Natural Causes (2004 to 2008)

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)
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
2008	23,993	-4.6	3,18,316	0.8	3,42,309	0.4

Figure 1.2

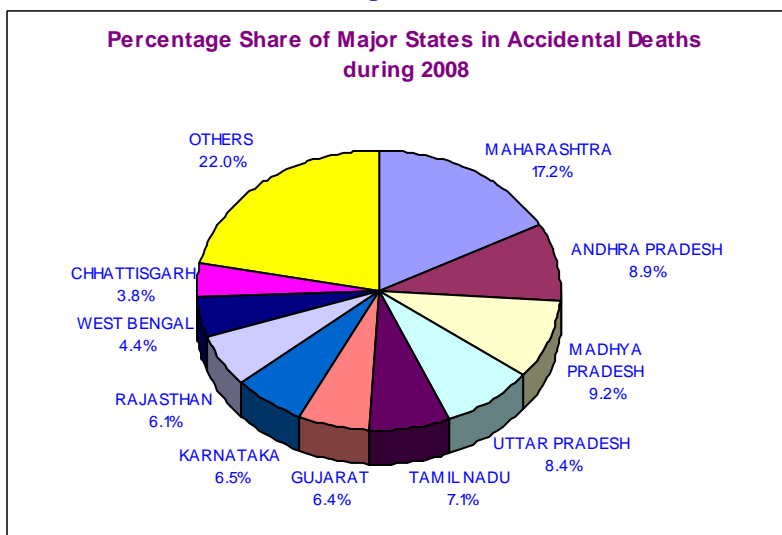


Incidence & Rate of Accidental Deaths in States, UTs and Cities (Table-1.2)

Maharashtra has reported 58,755 accidental deaths out of 3,42,309 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 8.4% of accidental deaths and stood at 4th position after Maharashtra (17.2%), Madhya Pradesh (9.2%) and Andhra Pradesh (8.9%). The States of Tamil Nadu (7.1%), Karnataka (6.5%), Gujarat (6.4%) and Rajasthan (6.1%) have also reported significant shares of deaths due to accidents during 2008.

Figure 1.3



The highest **rate of accidental deaths** was reported from **D & N Haveli and Puducherry (97.0 each)** against the National average rate of 29.7.

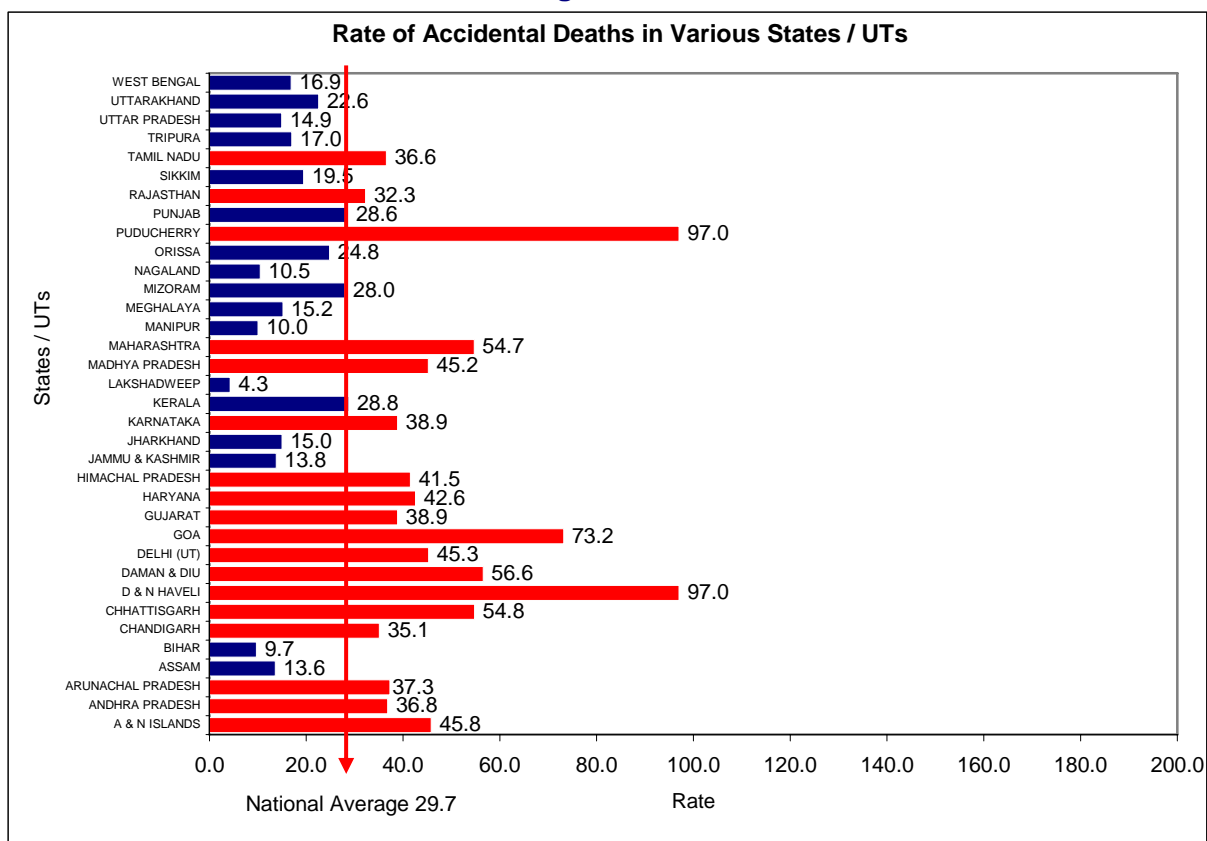
12 States & 6 UTs have constituted high risk areas reporting higher rates of 'Accidental

Deaths' than the All-India average of 29.7 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-à-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 29.7)	Sl. No.	States / UTs	Rate (less than 29.7)
1	D & N HAVELI	97.0	1	KERALA	28.8
2	PUDUCHERRY	97.0	2	PUNJAB	28.6
3	GOA	73.2	3	MIZORAM	28.0
4	DAMAN & DIU	56.6	4	ORISSA	24.8
5	CHHATTISGARH	54.8	5	UTTARAKHAND	22.6
6	MAHARASHTRA	54.7	6	SIKKIM	19.5
7	A & N ISLANDS	45.8	7	TRIPURA	17.0
8	DELHI (UT)	45.3	8	WEST BENGAL	16.9
9	MADHYA PRADESH	45.2	9	MEGHALAYA	15.2
10	HARYANA	42.6	10	JHARKHAND	15.0
11	HIMACHAL PRADESH	41.5	11	UTTAR PRADESH	14.9
12	GUJARAT	38.9	12	JAMMU & KASHMIR	13.8
13	KARNATAKA	38.9	13	ASSAM	13.6
14	ARUNACHAL PRADESH	37.3	14	NAGALAND	10.5
15	ANDHRA PRADESH	36.8	15	MANIPUR	10.0
16	TAMIL NADU	36.6	16	BIHAR	9.7
17	CHANDIGARH	35.1	17	LAKSHADWEEP	4.3
18	RAJASTHAN	32.3			

Figure 1.4



The incidence of Accidental Deaths has increased by 0.4% at National level during 2008 as compared to 2007. Mizoram has reported a major increase of 288.7% (71 deaths in 2007 to 276 deaths in 2008) followed by Nagaland (131 deaths in 2007 to 230 deaths in 2008 i.e. an increase of 75.6%) while Lakshadweep has shown a decline of 25.0% during 2008 as compared to 2007 (4 in 2007 to 3 in 2008). [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 (61.5%) of all persons killed in accidents in country during the year. [Table-1.4]

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

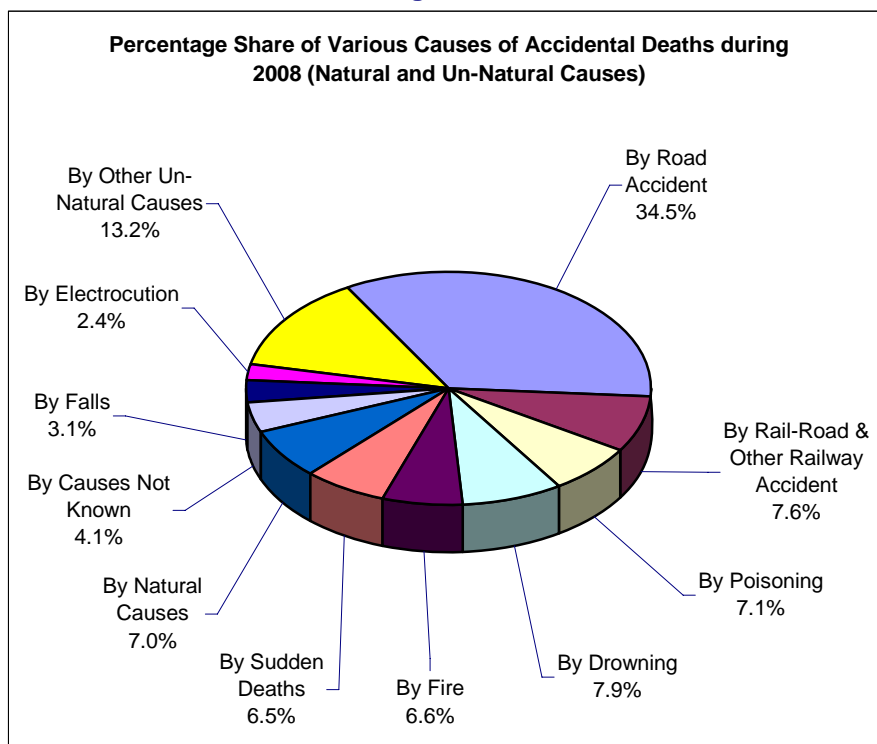
The percentage of 'Accidental Deaths' due to causes attributable to nature and those due to Un-Natural Causes were 7.0% and 93.0% respectively. The magnitude of 'Accidental

Deaths' by causes attributable to nature has decreased by 4.6% and that of deaths by Un-Natural Causes has increased by 0.8% during 2008 over the year 2007.

The share of accidental deaths due to causes attributable to Nature has decreased from 7.4% in 2007 to 7.0% in 2008. Share of deaths due to un-natural causes has increased from 92.6% in 2007 to 93.0% in 2008. Under causes attributable to nature, the share of deaths due to 'Starvation/Thirst' has increased whereas the share of causes such as 'Flood', 'Heat Stroke', 'Lightning' and 'Other Natural Causes' has decreased as compared to their share in the year 2007. The share of causes not attributable to nature has increased for causes such as 'Road Accidents', 'Fire Accidents' and 'Heart Attacks' whereas the share of causes such as 'Food Poisoning/Accidental Intake of Insecticide', 'Snake Bite/Animal Bite' and 'Epileptic Fits/Giddiness' and 'Fire Arms' has decreased as compared to the previous year. [Table-1(D)].

The average rate of Accidental Deaths has marginally decreased from 30.0 in 2007 to 29.7 in 2008.

Figure 1.5



Table—1 (D)
Incidence, Share & Rate of Accidental Deaths by Causes Attributable to Nature
and Un-Natural Causes during 2007 & 2008

Sl. No.	Cause	2007			2008			% variation of incidence in 2008 over 2007
		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	33	0.0	0.0	47	0.0	0.0	42.4
2	Cold and Exposure	802	0.2	0.1	836	0.2	0.1	4.2
3	Cyclone/Tornado	118	0.0	0.0	99	0.0	0.0	-16.1
4	Starvation/Thirst	147	0.0	0.0	227	0.1	0.0	54.4
5	Earthquake	14	0.0	0.0	6	0.0	0.0	-57.1
6	Epidemic	47	0.0	0.0	73	0.0	0.0	55.3
7	Flood	1348	0.4	0.1	861	0.3	0.1	-36.1
8	Heat Stroke	932	0.3	0.1	616	0.2	0.1	-33.9
9	Landslide	312	0.1	0.0	340	0.1	0.0	9.0
10	Lightning	2790	0.8	0.2	2553	0.7	0.2	-8.5
11	Torrential Rains	100	0.0	0.0	148	0.0	0.0	48.0
12	Other causes attributable to nature	18510	5.4	1.6	18187	5.3	1.6	-1.7
	Total (A)	25153	7.4	2.2	23993	7.0	2.1	-4.6
B. UN-NATURAL CAUSES								
1	Air-Crash	11	0.0	0.0	19	0.0	0.0	72.7
2	Collapse of Structure:	2623	0.8	0.2	2833	0.8	0.2	8.0
	(i) House	1011	0.3	0.1	1173	0.3	0.1	16.0
	(ii) Building	309	0.1	0.0	249	0.1	0.0	-19.4
	(iii) Dam	47	0.0	0.0	66	0.0	0.0	40.4
	(iv) Bridge	171	0.1	0.0	93	0.0	0.0	-45.6
	(v) Others	1085	0.3	0.1	1252	0.4	0.1	15.4
3	Drowning:	27064	7.9	2.4	27206	7.9	2.4	0.5
	(i) Boat Capsize	901	0.3	0.1	979	0.3	0.1	8.7
	(ii) Other Cases	26163	7.7	2.3	26227	7.7	2.3	0.2
4	Electrocution:	8076	2.4	0.7	8067	2.4	0.7	-0.1
5	Explosion:	669	0.2	0.1	792	0.2	0.1	18.4
	(i) Bomb explosion	270	0.1	0.0	490	0.1	0.0	81.5
	(ii) Other explosion (Boilers etc.)	399	0.1	0.0	302	0.1	0.0	-24.3
6	Falls:	10497	3.1	0.9	10637	3.1	0.9	1.3
	(i) Fall from Height	8662	2.5	0.8	8757	2.6	0.8	1.1
	(ii) Fall into Pit/Manhole etc.	1835	0.5	0.2	1880	0.5	0.2	2.5
7	Factory/Machine Accidents	836	0.2	0.1	858	0.3	0.1	2.6
8	Fire:	20772	6.1	1.8	22454	6.6	1.9	8.1
	(i) Fireworks/Crackers	429	0.1	0.0	342	0.1	0.0	-20.3
	(ii) Short-Circuit	1017	0.3	0.1	1098	0.3	0.1	8.0
	(iii) Gas Cylinder/Stove Burst	3830	1.1	0.3	3628	1.1	0.3	-5.3
	(iv) Other Fire Accidents	15496	4.5	1.4	17386	5.1	1.5	12.2
9	Fire-Arms	2046	0.6	0.2	1639	0.5	0.1	-19.9
10	Sudden Deaths:	21311	6.3	1.9	22738	6.6	2.0	6.7
	(i) Heart Attacks	13184	3.9	1.2	14397	4.2	1.2	9.2
	(ii) Epileptic Fits/Giddiness	3271	1.0	0.3	3182	0.9	0.3	-2.7
	(iii) Abortions/Child Birth	814	0.2	0.1	851	0.2	0.1	4.5
	(iv) Influence of Alcohol	4042	1.2	0.4	4308	1.3	0.4	6.6
11	Killed by animals	1007	0.3	0.1	827	0.2	0.1	-17.9
12	Mines or quarry disaster	435	0.1	0.0	371	0.1	0.0	-14.7
13	Poisoning:	25447	7.5	2.2	24261	7.1	2.1	-4.7
	(i) Food Poisoning/Accidental Intake of Insecticide	8425	2.5	0.7	7829	2.3	0.7	-7.1
	(ii) Spurious/poisonous liquor	1251	0.4	0.1	1358	0.4	0.1	8.6
	(iii) Leakage of poisonous gases Etc.	198	0.1	0.0	247	0.1	0.0	24.7
	(iv) Snake Bite/Animal Bite	8026	2.4	0.7	7825	2.3	0.7	-2.5
	(v) Other	7547	2.2	0.7	7002	2.0	0.6	-7.2
14	Stampede	75	0.0	0.0	434	0.1	0.0	478.7
15	Suffocation	1313	0.4	0.1	1496	0.4	0.1	13.9
16	Traffic Accidents:	140560	41.2	12.4	144587	42.2	12.5	2.9
	(i) Road Accidents	114590	33.6	10.1	118239	34.5	10.3	3.2
	(ii) Rail-Road Accidents	2369	0.7	0.2	2222	0.6	0.2	-6.2
	(iii) Other Railway Accidents	23601	6.9	2.1	24126	7.0	2.1	2.2
17	Other Causes	35992	10.6	3.2	35135	10.3	3.0	-2.4
18	Causes Not Known	16907	5.0	1.5	13962	4.1	1.2	-17.4
	Total (B)	315641	92.6	27.8	318316	93.0	27.6	0.8
	Grand Total (A+B)	340794	100.0	30.0	342309	100.0	29.7	0.4

Causes Attributable to Nature

The age group-wise distribution of accidental deaths by causes attributable to nature is given in **Table-1.5**. 76.3% victims of causes attributable to nature were males. Age-wise, 6.1% of such victims were up to 14 years of age while 54.9% were in the age-group of 15-44 years. 24.5% such victims were in the age-group 45-59 years. Senior citizens (60 yrs. and above) constituted 14.5% of the total victims.

11.8% deaths were reported from Uttar Pradesh followed by West Bengal (10.4%), Karnataka (9.5%) and Rajasthan (9.4%) (**Table-1.10**). 20.3% deaths in Haryana and 17.8% deaths in Punjab were due to 'Cold and Exposure' only. 50.0% deaths in Manipur were due to 'Starvation/thirst'. 22.7% deaths in Bihar followed by 21.7% deaths in Maharashtra were reported due to 'Floods'. 50.0% deaths in Manipur, 26.3% deaths in Nagaland and 22.0% deaths in Uttarakhand were due to 'Landslide' alone. 'Lightning' accounted for 77.7% deaths in Chhattisgarh, 75.6% deaths in Kerala, 61.6% deaths in Maharashtra, 53.5% deaths in Madhya Pradesh and 30.3% deaths in Orissa. No deaths due to causes attributable to Nature have been reported from Goa, 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 6,32,102 cases of 'Un-Natural Accidents' caused 3,18,316 deaths and rendered 4,98,124 people injured during 2008. (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. Madhya Pradesh and Andhra Pradesh accounted for 9.7% and 9.1% deaths respectively 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' (37.1%), Railway Accidents and Rail-Road accidents (8.3%), 'Drowning' (8.5%), 'Poisoning' (7.6%), 'Fire Accidents' and 'Sudden Deaths' (7.1% each).

The number of cases of Un-natural accidents at the National level has decreased by 0.7% (from 6,36,394 in 2007 to 6,32,102 in 2008) as compared to previous year. The number of persons injured has increased by 0.9% (from 4,93,515 in 2007 to 4,98,124 in 2008) and the number of persons killed in these accidents has also increased by 0.8% (from 3,15,641 in 2007 to 3,18,316 in 2008). The Accident cases due to 'Air Crash' have increased by 100% from 6 in 2007 to 12 in 2008 and 'Stampede' cases increased by 64.1% from 64 in 2007 to 105 in 2008, while cases of 'Killed by animals' have decreased by 20.2% from 1,136 in 2007 to 907 in 2008. [**Table-1.6**]

The proportion of male injured and killed due to un-natural causes in the country was 81.5% and 77.1% respectively of the total such injuries and deaths (**Table-1.11**). 94.2% of injuries and 37.1% 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 67.2% of those killed were females as compared to 32.8% males. [**Table-1.7**]

The cause-wise analysis of un-natural deaths revealed that 72.5% deaths in Sikkim were due to 'Road Accidents', 54.1% deaths in Puducherry were attributed as 'Sudden Deaths', 66.7% and 33.3% deaths in Lakshadweep were due to 'Fire Accidents' and 'Drowning' respectively, 14.0% deaths in A & N Islands were due to 'Falls', 17.1% deaths in Kerala were due to 'Drowning', 15.7% deaths in Meghalaya were due to 'Poisoning' and 11.2% deaths in Manipur were due to 'Explosion'. [**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 2008

Sl. No.	High Accidental death Prone Areas				
	Road Accident Deaths All-India Percentage Share = 37.1%		Sl. No.	Poisoning All-India Percentage Share = 7.6%	
	State/UT	%Share		State/UT	%Share
1	SIKKIM	72.5	1	MEGHALAYA	15.7
2	JAMMU & KASHMIR	69.3	2	MADHYA PRADESH	15.2
3	NAGALAND	60.4	3	HIMACHAL PRADESH	13.4
4	TAMIL NADU	54.0	4	PUNJAB	11.5
5	UTTARAKHAND	53.1	5	WEST BENGAL	11.3
6	MANIPUR	51.4	6	CHHATTISGARH	11.0
7	ANDHRA PRADESH	49.0	7	ORISSA	9.9
8	HARYANA	48.0	8	ARUNACHAL PRADESH	9.3
9	BIHAR	47.2	9	KARNATAKA	9.1
10	UTTAR PRADESH	46.8	10	UTTARAKHAND	9.1
11	TRIPURA	46.5	11	RAJASTHAN	9.0
12	RAJASTHAN	44.7	12	A & N ISLANDS	8.1
13	ASSAM	44.6	13	TAMIL NADU	8.0
14	KARNATAKA	43.8	14	GUJARAT	7.7
15	JHARKHAND	43.6			
16	MIZORAM	43.3			
17	ARUNACHAL PRADESH	43.0			
18	MEGHALAYA	42.5			
19	KERALA	40.0			
20	CHANDIGARH	38.9			
21	WEST BENGAL	38.1			

Table – 1 (F)
High Accidental death prone areas on the basis of Percentage share of deaths due to unnatural causes (Drowning, Fire and Sudden Deaths) during 2008

Sl. No.	High Accidental death Prone Areas				
	Deaths due to Drowning All-India Percentage Share = 8.5%		Sl. No.	Fire All-India Percentage Share = 7.1%	
	State/UT	%Share		State/UT	%Share
1	LAKSHADWEEP	33.3	1	LAKSHADWEEP	66.7
2	KERALA	17.1	2	GUJARAT	13.3
3	GOA	15.0	3	MAHARASHTRA	9.4
4	A & N ISLANDS	14.0	4	MADHYA PRADESH	9.0
5	DAMAN & DIU	13.2	5	TAMIL NADU	8.1
6	MADHYA PRADESH	12.4	6	KARNATAKA	7.9
7	MIZORAM	11.7	7	BIHAR	7.5
8	CHHATTISGARH	11.3	Sl. No.	Sudden Deaths All-India Percentage Share = 7.1%	
9	KARNATAKA	10.8		State/UT	%Share
10	ASSAM	10.2	1	PUDUCHERRY	54.1
11	D & N HAVELI	10.1	2	KERALA	15.6
12	TRIPURA	10.1	3	TRIPURA	14.5
13	UTTARAKHAND	9.8	4	MAHARASHTRA	14.3
14	GUJARAT	9.6	5	CHANDIGARH	13.9
15	PUDUCHERRY	9.1	6	D & N HAVELI	13.5
16	ANDHRA PRADESH	8.9	7	DAMAN & DIU	12.1
17	JHARKHAND	8.7	8	PUNJAB	11.3
18	MAHARASHTRA	8.7	9	GUJARAT	10.8
			10	HIMACHAL PRADESH	10.1
			11	A & N ISLANDS	9.1
			12	MEGHALAYA	8.0
			13	HARYANA	7.6
			14	UTTARAKHAND	7.3

Table – 1 (G)
High Prone areas on the basis of Percentage share of deaths due to unnatural causes (Rail Road & Railways Accidents) during 2008

Sl. No.	High Accidental death Prone Areas	
	Rail-Road & Railways Accidental Deaths All-India Percentage Share = 8.3%	
	State/UT	%Share
1	WEST BENGAL	20.0
2	BIHAR	16.8
3	DELHI (UT)	15.9
4	UTTAR PRADESH	14.8
5	JHARKHAND	13.4
6	PUNJAB	13.2
7	ASSAM	11.7
8	HARYANA	11.4
9	MAHARASHTRA	8.7

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 decreased by 0.7% during 2008 compared to 2007 [Table-1.6]. The casualties in Road Accidents in the country have increased by 3.2% during 2008 as compared to 2007. Their proportion in total deaths due to Un-natural causes has increased from 36.3% to 37.1% in 2008. The following statistics reveal the growing magnitude of 'Road Accidental Deaths'. [Table-1(H)] A total of 4,45,468 'Traffic Accidents' were reported during the year comprising of 4,15,855 'Road Accidents', 2,134 'Rail-Road Accidents' and 27,479 'Other Railway Accidents'. These accidents caused 1,18,239, 2,222 and 24,126 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 decreased marginally from 1.4 in 2004 to 1.3 in 2008 even as the number of vehicles in the country have increased and the quantum of 'Road Accidents' has decreased.

Railway Accidents & Rail-Road Accidents

2,134 cases of 'Rail-Road Accidents' were reported during the year 2008 which shows an increase of 13.9% over 2007 where 1,873 cases were reported. The cases of deaths due to 'Rail-Road Accidents' have decreased by 6.2% from 2,369 cases in 2007 to 2,222 in 2008. 1,823 victims (out of 2,222 deaths) were males and 399 were females. [Table-1.6] 561 cases were reported in the third quarter of the year 2008 which accounted for 26.3% of the total 'Rail-Road Accidents' during the year while in 2007, 522 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 2004 to 2008

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	2004	91,376	2,58,326	35.2
2	2005	98,254	2,71,760	36.2
3	2006	1,05,725	2,93,202	36.1
4	2007	1,14,590	3,15,641	36.3
5	2008	1,18,239	3,18,316	37.1

Table – 1 (I)

Growth in Number of Vehicles and Road Accidents in India (2004-2008)

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	2004	361.3	7.4	413.9	8.1	91,376	8.2	66,289*	–	1.4
2	2005	390.4	8.0	447.9	8.2	98,254	7.5	66,289*	–	1.5
3	2006	394.4	1.0	452.9	1.1	1,05,725	7.6	72,718 [@]	9.7	1.5
4	2007	418.6	6.1	465.3	2.7	1,14,590	8.4	72,718 [#]	–	1.6
5	2008	415.8	– 6.7	469.1	0.8	1,18,239	3.2	89,618 [@]	23.2	1.3

Source : for Col.9, Motor Transport Statistics of India, Transport Research Wing, Ministry of Road Transport & Highways, New Delhi.

* : data for the year 2003 is repeated in 2004 and 2005 due to non availability.

@ : as per latest data of Ministry of Road Transport & Highways.

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

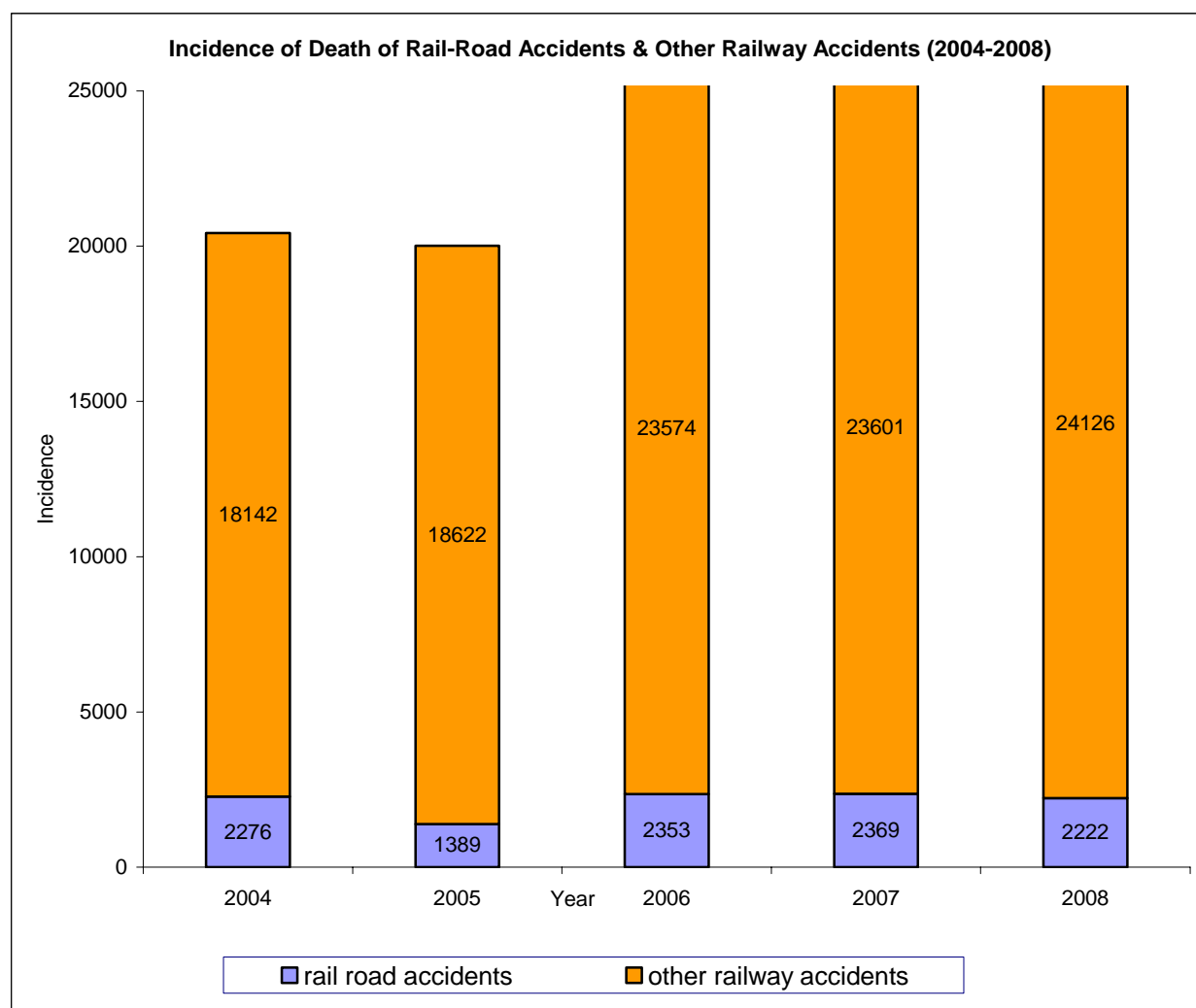


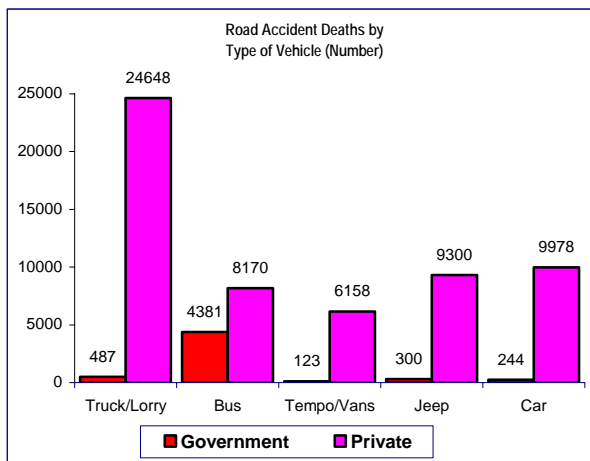
Table — 1 (J)
Incidence and Rate of Deaths due to Road Accidents during 2008
(State/UT wise)

Sl. No.	State/UT	No. of cases of Road Accidents	Total Registered Motor Vehicles as on 31.03.2008 [#] (in 000 ['])	No. of deaths due to Road Accidents in 2008	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)
STATES:						
1	ANDHRA PRADESH	42106	7218	14158	2.0	33.6
2	ARUNACHAL PRADESH	261	22	125	5.7	47.9
3	ASSAM	4262	914	1721	1.9	40.4
4	BIHAR	6180	1432	3471	2.4	56.2
5	CHHATTISGARH	8769	1541	3243	2.1	37.0
6	GOA	4179	529	333	0.6	8.0
7	GUJARAT	21027	8622	6386	0.7	30.4
8	HARYANA	11241	3087	4680	1.5	41.6
9	HIMACHAL PRADESH	1982	334	798	2.4	40.3
10	JAMMU & KASHMIR	5426	524	981	1.9	18.1
11	JHARKHAND	3259	1505	1574	1.0	48.3
12	KARNATAKA	46252	6220	8814	1.4	19.1
13	KERALA	37238	3559	3934	1.1	10.6
14	MADHYA PRADESH	34316	4609	7514	1.6	21.9
15	MAHARASHTRA	49679	10966	12957	1.2	26.1
16	MANIPUR	502	124	133	1.1	26.5
17	MEGHALAYA	191	104	149	1.4	78.0
18	MIZORAM	87	52	78	1.5	89.7
19	NAGALAND	126	184	116	0.6	92.1
20	ORISSA	8184	1932	3104	1.6	37.9
21	PUNJAB	2394	4035	2055	0.5	85.8
22	RAJASTHAN	23704	4754	8388	1.8	35.4
23	SIKKIM	196	22	79	3.6	40.3
24	TAMIL NADU	60409	10054	12784	1.3	21.2
25	TRIPURA	767	106	221	2.1	28.8
26	UTTAR PRADESH	19064	7989	12073	1.5	63.3
27	UTTARAKHAND	1409	643	1067	1.7	75.7
28	WEST BENGAL	11547	2872	4739	1.7	41.0
	TOTAL (STATES):	404757	83953	115675	1.4	28.6
UNION TERRITORIES:						
29	A & N ISLANDS	191	41	22	0.5	11.5
30	CHANDIGARH	477	647	146	0.2	30.6
31	D & N HAVELI	116	45	65	1.4	56.0
32	DAMAN & DIU	50	55	21	0.4	42.0
33	DELHI (UT)	8566	4487	2098	0.5	24.5
34	LAKSHADWEEP	0	6	0	0.0	0.0
35	PUDUCHERRY	1698	384	212	0.6	12.5
	TOTAL (UTs):	11098	5665	2564	0.5	23.1
	TOTAL (ALL INDIA):	415855	89618	118239	1.3	28.4

Source: [#] for column 4 -'Motor Transport Statistics of India' report of Transport Research wing, Ministry of Road Transport & Highways, New Delhi.

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 5.7 followed by Sikkim 3.6, Bihar and Himachal Pradesh 2.4 each and Chhattisgarh and Tripura 2.1 each and Andhra Pradesh 2.0 as compared to 1.3 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 (92.1) followed by Mizoram (89.7) and Punjab (85.8) compared to 28.4 at the National level.

Figure 1.6



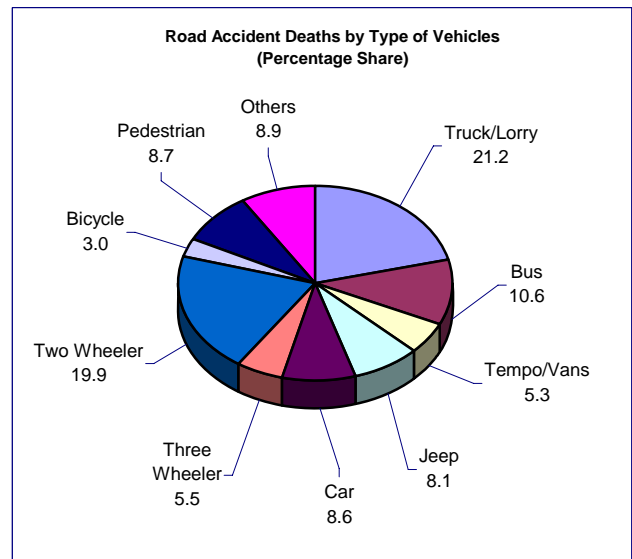
Fatal Road Accidents

Tamil Nadu and Maharashtra have accounted for 14.5% and 11.9% respectively of total 'Road Accident' cases in the country. Andhra Pradesh, Maharashtra and Tamil Nadu have reported 12.0%, 11.0% and 10.8% respectively of total Road Accident Deaths in the country.

1,00,300 males and 17,939 females totaling 1,18,239 persons were killed during the year 2008, while traveling by various modes of transport on roads. 25,135 persons (21.2%) of

these were occupants of 'Truck/Lorry', 23,552 (19.9%) were riding on 'Two-wheelers', 12,551 (10.6%) were killed while traveling in buses and 10,324 (8.7%) 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 98.1% victims of 'Truck/Lorry', 98.0% victims of 'Tempo/Vans', 97.6% victims of 'Cars', 96.9% victims of 'Jeeps' and 65.1% victims of 'Buses' involved in accidents, were traveling in private vehicles.

The number of persons who died of 'Truck/Lorry' accidents was highest in Andhra Pradesh (13.4%) followed by Tamil Nadu (11.6%). 19.7% of 'Bus' victims and 20.1% of 'Car' victims were from Tamil Nadu only. 16.1% of 'Tempo/Van' victims and 15.7% 'Jeep' victims were from Uttar Pradesh, 29.1% of 'Three Wheeler' victims were from Andhra Pradesh, 15.2% 'Two Wheeler' victims and 17.4% 'Pedestrian' victims were from Maharashtra alone.

Table — 1 (K)
Sex wise Road Accident Deaths by Type of Vehicle during 2008

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	22246	2889	25135	21.3
	Government	429	58	487	0.4
	Private	21817	2831	24648	20.8
2	Bus	9920	2631	12551	10.6
	Government	3342	1039	4381	3.7
	Private	6578	1592	8170	6.9
3	Tempo/Vans	5195	1086	6281	5.3
	Government	110	13	123	0.1
	Private	5085	1073	6158	5.2
4	Jeep	8024	1576	9600	8.1
	Government	251	49	300	0.3
	Private	7773	1527	9300	7.9
5	Car	8571	1651	10222	8.6
	Government	185	59	244	0.2
	Private	8386	1592	9978	8.4
6	Three Wheeler	5329	1216	6545	5.5
7	Two Wheeler	20420	3132	23552	19.9
8	Bicycle	2956	540	3496	3.0
9	Pedestrian	8488	1836	10324	8.7
10	Others	9151	1382	10533	8.9
	Total	100300	17939	118239	100.0

Traffic Accidents by Month & Time of Occurrence

As per **Table-1.9**, a total of 1,17,553 'Traffic Accidents' were reported in the 2nd quarter of the year accounting for 26.4% (out of 4,45,468) 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 April (38,059) and May (37,912) sharing 9.2% and 9.1% respectively. Maximum 'Rail-Road Accidents' occurred during the month of September (192) and March (191). The maximum number of 'Other Railway Accidents' were reported during the months of August (2,444) and October (2,426). [**Table-1.12**]

Tamil Nadu and Maharashtra which accounted for the maximum (14.5%) and (11.9%) '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 2.0% at the

National level. Uttar Pradesh alone has reported 37.8% of 'Rail-Road accidents' in the country.

A total of 8,420 (out of 27,479) accidents accounting for 30.6% of 'Railway Accidents' (other than 'Rail-Road accidents') were reported from Maharashtra alone followed by Uttar Pradesh 3,027 (11.0%). Delhi is the only UT which has recorded such accidents. A total of 1,099 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 (Pahar) of the day is presented in **Table-1.13**. Maximum 'Road Accidents' (66,811) were reported during 3 p.m. to 6 p.m. (16.1%), 64,365 cases during 6 p.m. to 9 p.m. (15.5%), and least number (31,092) of these accidents (7.5%) was 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 (16.9%). The maximum number of 'Other Railway Accidents' (16.1%) 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' (8,681) followed by Delhi (7,016) accounting for 18.5% and 15.0% respectively of the total accidental deaths reported by 35 mega cities. The rate of 'Accidental Deaths' was highest in Pune (100.2) followed by Meerut (92.4) as compared to average rate for the cities (43.5). Mumbai's share (18.5%) 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 (43.5) was higher than the All-India rate

(29.7). Except ten cities viz. Agra, Asansol, Bhopal, Dhanbad, Jabalpur, Jamshedpur, Kolkata, Lucknow, Madurai and Patna all other 25 cities have reported higher or equal rate of 'accidental deaths' than the National average. It is also interesting to note that 25 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 6.6. The comparative reporting of 'accidental deaths' during 2008 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 2008

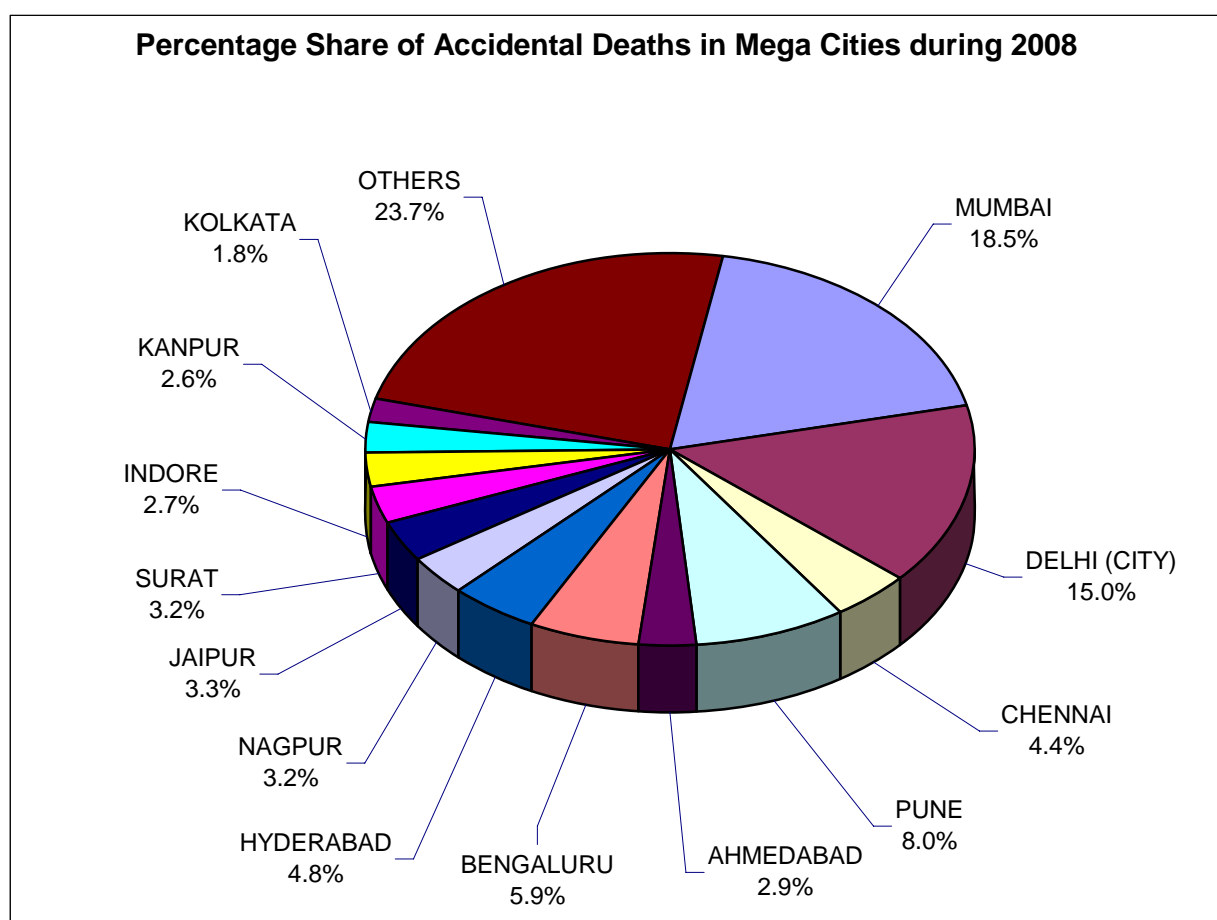
SI. No.	City	Rate in City	Rate in Parent State
(1)	(2)	(3)	(4)
1	PUNE	100.2	54.7
2	NASIK	86.5	54.7
3	NAGPUR	69.8	54.7
4	DELHI (CITY)	54.9	45.3
5	INDORE	76.7	45.2
6	FARIDABAD	55.9	42.6
7	RAJKOT	78.7	38.9
8	SURAT	53.2	38.9
9	VADODARA	42.2	38.9
10	BENGALURU	48.6	38.9
11	VIJAYAWADA	60.8	36.8
12	HYDERABAD	40.2	36.8
13	COIMBATORE	39.9	36.6
14	JAIPUR	66.7	32.3
15	KOCHI	37.9	28.8
16	LUDHIANA	30.0	29.9
17	ASANSOL	27.1	16.9
18	JAMSHEDPUR	21.4	15.0
19	MEERUT	92.4	14.9
20	ALLAHABAD	92.0	14.9
21	VARANASI	46.8	14.9
22	KANPUR	45.9	14.9
23	AGRA	28.7	14.9
24	LUCKNOW	26.9	14.9
25	PATNA	15.0	9.7

Table – 1 (M)

Rate of Accidental Deaths in Metropolitan Cities during 2008

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	4.4	31.8
2.	Delhi	127.9	11.9	15.0	54.9
3.	Kolkata	132.2	12.3	1.8	6.6
4.	Mumbai	163.7	15.2	18.5	53.0

Figure – 1.8



43,694 deaths due to un-natural causes & 3,190 deaths due to causes attributable to Nature were reported from 35 cities out of total 46,884 'accidental deaths' as compared to 50,559 deaths during 2007 accounting for a decrease of 7.3% during the year. 18 cities out of 35 have reported a decline in accidental deaths. Allahabad city reported the maximum increase of 135% (from 411 to 966) while Chennai city has reported the maximum decline of 53.4% (from 4,390 to 2,046) in the number of accidental deaths during the year 2008. [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. 13.7% of total accidental deaths in the country) and significantly higher rate of 43.5 as compared to 29.7 at the National level. The share of deaths in cities due to causes attributable to Nature was 13.3% while that due to un-natural causes was 13.7% at the national level.

Accidents due to Un-Natural causes in 35 cities reported a decrease of 6.7% over the previous year (from 1,02,629 to 95,783) as compared to 0.7% decrease at the National level (from 6,36,394 to 6,32,102). These 35 cities accounted for nearly 15.1% (95,783 out of 6,32,102) of accidents due to un-natural causes in the country which rendered 11.3% (56,372 out of 4,98,124) injured & 13.7% (43,694 out of 3,18,316) dead. The highest number of un-natural accidents (12.2%) and the maximum number of deaths (19.9%) were reported in Mumbai city 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 (50.9%) followed by Hyderabad city (15.9%). All such deaths in Lucknow, 76.0% such deaths in Ludhiana and 72.2% such deaths in Faridabad were due to 'Cold and Exposure'. 68.2% such deaths in Ahmedabad were due to 'Starvation/Thirst'. 60.0% such deaths in Jabalpur were due to 'Torrential Rains'. 25.0% such deaths in Nasik and Vijayawada were due to 'Flood'. 40.0% deaths in Jamshedpur were due to 'Heat Stroke'. The lone such death reported in Surat and 66.7% deaths in Pune were due to 'Lightning'. [Table-1.10]

17.6% and 16.5% of deaths due to un-natural causes in Vishakhapatnam and Vijayawada

respectively were due to 'Drowning'. 15.0% of un-natural deaths were due to 'Falls' in Surat. 27.0% and 22.6% such deaths were due to 'Fire' in Rajkot and Jamshedpur respectively. 22.5% such deaths in Meerut were due to 'Fire-Arms'. 'Sudden Deaths' accounted for 33.0% and 29.6% respectively of un-natural deaths in Rajkot and Nasik. Deaths due to 'Poisoning' accounted for 12.5% in Ludhiana, whereas 11.8% such deaths in Indore city were due to 'Suffocation'.

Among Un-natural causes, the share of 'Deaths' in cities due to 'Falls' (5.8%), 'Fire' (8.9%) and 'Sudden Deaths' (12.5%) was higher than their corresponding shares of 3.1%, 6.5% and 6.6% respectively at the national level. Share of deaths due to 'Drowning' (4.8%), 'Poisoning' (3.5%), deaths in Traffic Accidents (30.9%), on the other hand, were comparatively lower than their corresponding shares of 7.9%, 7.1% and 42.2% respectively at the National level. [Table-1.11]

In Lucknow and Agra 89.1% and 75.6% of total un-natural accidental deaths were due to 'Road Accidents'. Delhi city alone reported 29.0% deaths of Pedestrian and Lucknow city reported 13.5% deaths of bicycle riders in the 35 mega cities during 2008.
