1 CHAPTER AN OVERVIEW

The number of road traffic deaths on the world's roads remains unacceptably high with 1.35 million people dying each year.

However, the rates of death relative to the size of the world's population has stabilized in recent years as a result of progress in important areas such as legislation, vehicle standards and improved access to post-crash care. This progress has not, however, occurred at a pace fast enough to compensate for the rising population and rapid motorization of transport taking place in many parts of the world. At this rate, the Sustainable Development Goals (SDG) target 3.6 to halve road traffic deaths by 2020 will not be met. **(Source: Global Status report on Road Safety: 2018)**

The numbers are staggering. Road traffic crashes now represent the eighth leading cause of death globally. They claim more than 1.35 million lives each year and cause up to 50 million injuries. And, the fact is, every one of those deaths and injuries is preventable.

Road traffic injuries cause considerable economic loss to individuals, their families, and to nations as a whole. **These losses arise from the cost of treatment as well as lost productivity for those killed or disabled by their injuries, and for family members who need to take time off work or school** to care for the injured.

- The rate of road traffic deaths are highest in Africa and South East Asia.
- There has been no reduction in the number of road traffic deaths in any low-income country since 2013.
- Road traffic injuries are now the leading cause of death for children and young adults aged 5-29 years.

Road traffic injuries - Fact sheet (Reviewed January 2018: WHO)

Key facts

- **More than 1.35 million people die each year** as a result of road traffic crashes.
- Road traffic injuries are the leading cause of death among **people aged between 15 and 29 years.**
- **90% of the world's fatalities on the roads occur in low- and middle-income countries,** even though these countries have approximately 54% of the world's vehicles.
- Nearly half of those dying on the world's roads are **"vulnerable road users": pedestrians, cyclists, and motorcyclists.**
- Road traffic crashes **cost most countries 3% of their gross domestic product.**
- Without sustained action, road traffic crashes are **predicted to become the seventh leading cause of death by 2030.**
- The newly adopted 2030 Agenda for Sustainable Development has set an ambitious **target of halving the global number of deaths and injuries from road traffic crashes by 2020.**

NATIONAL TRENDS

Today, Road traffic injuries are recognized, globally, as a major public health problem, for being one of the leading causes of deaths, disabilities and hospitalization, imposing huge socio-economic costs. In India, road traffic injuries are one of the 8th leading cause of death and health loss among persons of age group 15-49 years.

During **the year 2017, the total number of 4,64,910 road accidents were reported causing injuries to 4,70,975 persons and claiming 1,47,913 lives in the country. This would translate, on an average, into 1274 accidents and 405 deaths every day or 53 accidents and 17 deaths every hour in the country.**

- Road accident severity expressed in terms of the number of persons killed per 100 accidents, consequently has gone up from 31.4 in 2016 to 31.8 in 2017, with a marginal increase of 0.4 percentage points in 2017 over the previous year.
- **In 2017, the fifty Million-Plus Cities accounted for 17.7 percent of the total number of accidents and 11.5 percent of deaths in the country. Accident severity, i.e., accident deaths per 100 road accidents, has gone up by 0.8 percentage compared to previous year in these fifty million-plus cities.**

Road accidents in million plus cities:

- **Road accidents tend to be concentrated in urban areas because of dense population and road traffic congestion.**
- **In 2017, a total of 82,286 road accidents were recorded in the 50 million-plus cities out of which 15,996 were fatal accidents, i.e., causing death of one person or more. These accidents resulted in a loss of 16,971 lives and caused injuries to 73,945 persons. Chennai had the highest number of road accidents (7257) while Delhi had the highest number of deaths (1584) due to road accidents followed by Chennai and Jaipur.**
- Details indicating the total number of accidents, persons killed and injured with accident severity in the 50 Million plus cities is illustrated at Table 1.2.

Table 1.1 Road accidents parameters

S.No.	Parameter	2016	2017	% Change over previous year
1	Total accidents in the Country	4,80,652	4,64,910	-3.3
2	Total number of persons killed in the Country	1,50,785	1,47,913	-1.9
3	Total number of persons injured in the Country	4,94,624	4,70,975	-4.8
4	Accident Severity (No. of persons killed every 100 accidents)	31.4	31.8	0.4

Source: Road accidents in India: Ministry of Road Transport and Highways.

Table 1.2: Total Number of Road Accidents, Number of persons Killed & Injured in Million Plus Cities in 2017

S.No.	Cities	Fatal Accidents	Injury Accidents	Total Accidents	No. of Persons Killed	No. of Persons Injured	Severity of Accidents*
1.	Agra	379	653	1032	555	896	53.8
2.	Ahmedabad	328	1235	1563	336	1443	21.
3.	Allahabad	452	669	1163	472	734	40.6
4.	Amritsar	66	49	119	67	100	56.3
5.	Asansol-Durgapur	248	149	425	271	406	63.8
6.	Aurangabad	149	335	592	157	486	26.5
7.	Bengaluru	616	1301	2297	653	2083	28.4
8.	Bhopal	242	2465	3393	252	2720	7.4
9.	Chandigarh	103	205	342	107	302	31.3
10.	Chennai	1264	5670	7257	1299	6975	17.9
11.	Coimbatore	269	969	1299	277	1191	21.3
12.	Delhi	1565	5017	6673	1584	6604	23.7
13.	Dhanbad	194	172	366	196	199	23.7
14.	Faridabad	271	441	712	276	610	38.8
15.	Ghaziabad	373	544	930	402	709	43.2
16.	Gwalior	273	1572	2156	317	1800	14.7
17.	Hyderabad	302	2066	2834	310	2370	10.9
18.	Indore	368	3341	4513	391	3676	8.7
19.	Jabalpur	372	2611	3303	409	3113	12.4
20.	Jaipur	753	1835	2983	813	2550	27.3
21.	Jamshedpur	190	104	304	223	205	73.4
22.	Jodhpur	101	167	282	104	262	36.9
23.	Kannur	67	477	578	68	700	11.8
24.	Kanpur	608	960	1568	682	1199	43.5
25.	Khozikode	168	1150	1467	184	1544	12.5
26.	Kochi	132	2149	2503	137	2600	5.5
27.	Kolkata	318	2215	3131	329	2559	10.5
28.	Kollam	202	1515	1780	213	1763	12.0
29.	Kota	87	358	481	93	471	19.3
30.	Lucknow	581	824	1515	655	917	43.2
31.	Ludhiana	278	214	493	281	316	57.0
32.	Madurai	187	696	920	189	891	20.5
33.	Mallapuram	362	1797	2339	385	2683	16.5
34.	Meerut	388	652	1040	411	794	39.5
35.	Mumbai	467	2603	3160	490	3287	15.5
36.	Nagpur	222	976	1242	231	1256	18.6
37.	Nashik	158	345	631	171	510	27.1
38.	Patna	136	164	422	147	218	34.8
39.	Pune	360	966	1508	373	1154	24.7
40.	Raipur	410	975	2159	420	1288	19.5
41.	Rajkot	160	428	617	161	494	26.1
42.	Srinagar	59	259	363	60	345	16.5
43.	Surat	243	590	902	251	819	27.8
44.	Thiruvanthapuram	169	1880	2113	172	2497	8.1
45.	Thrissur	103	1184	1384	106	1548	7.7
46.	Tiruchirapalli	129	489	638	134	768	21.0
47.	Vadodra	171	543	867	186	755	21.5
48.	Varanasi	279	316	612	279	316	45.6
49.	Vijaywada city	345	1146	1648	349	1525	21.2
50.	Vishakapatnam	329	1068	1667	343	1294	20.6
	Total	**15996**	**58509**	**82286**	**16971**	**73945**	**20.6**

Source: ROAD ACCIDENTS IN INDIA 2017: MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

***Number of persons killed per 100 accidents**

TRENDS IN DELHI

Delhi, over the years has witnessed spectacular growth of population due to constant influx of people from neighbouring states in search of employment and business.

- **The National Capital Territory of Delhi covers an area of 1483 sq. km. and has a population of around 192 lacs.** Delhi has a total road length of 33,198 kms.
- Every aspect of development has increased the population of the city and has created pressure on the supporting systems like housing, infrastructure and transportation. Growth in population has led to increased demand for transportation and thus, subsequently, to **a phenomenal increase in the number of motor vehicles.**
- There are over **112.04 Lakh registered vehicles of all categories in Delhi for the year 2018. 7.21 lakhs vehicles were added** during the year 2018. The yearly **compounding growth of vehicular population for the year 2018 is 6.88%.**
- Private transport viz. **private cars and two wheelers constitute 93.89%** of all registered vehicles in Delhi. On the contrary, all categories of buses, which are the major source of **public transportation, form less than 0.5%** of the total vehicular population.
- With the growth of population, traffic scenario has also become more challenging particularly with regard to the number of accidents.
- The **heterogeneity and magnitude of vehicle population, the unpredictability of human behavior, the economic constraints, insufficient road markings and signages, defective road designing, deficiencies in vehicle design,** are some of the factors leading to road accidents in Delhi. Drunken driving, over speeding, overloading, violation of traffic rules are the common causes of traffic accidents.
- This increase has manifested itself in numerous transportation problems. The traffic volume on main corridors has increased to the extent to cross the threshold carrying capacity of the roads.
- However, **with the increased presence and tactical deployment of traffic staff, traffic engineering and other steps taken after in-depth analysis of causes of accidents, the current traffic management strategies/techniques have proved to be effective** in reducing the number of road accidents.
- **During the year 2018, 6515 road accidents occurred in Delhi in which 6086 people were injured and 1690 people lost their lives.**
- There was an increase of 5.88% in the number of fatal accidents in Delhi as compared to the previous year i.e. 2017.
- **The fatality rate has increased by 6.69%.**
- **There is a decrease of 2.36% in total accidents.**
- Pedestrians were the most vulnerable victims. In 2018, **45.86% of the total persons killed in road accidents were pedestrians. Scooter/ Motor cycle riders were the second most vulnerable accident-prone victims constituting 33.72%** of the total persons killed.
- **In the year 2018, car/taxis caused 253 fatal accidents accounting for 15.26% of total fatal accidents which was the maximum number for a vehicle type. HTVs came next with 184 fatal accidents (11.1%).**
- **Accident classifications according to day**

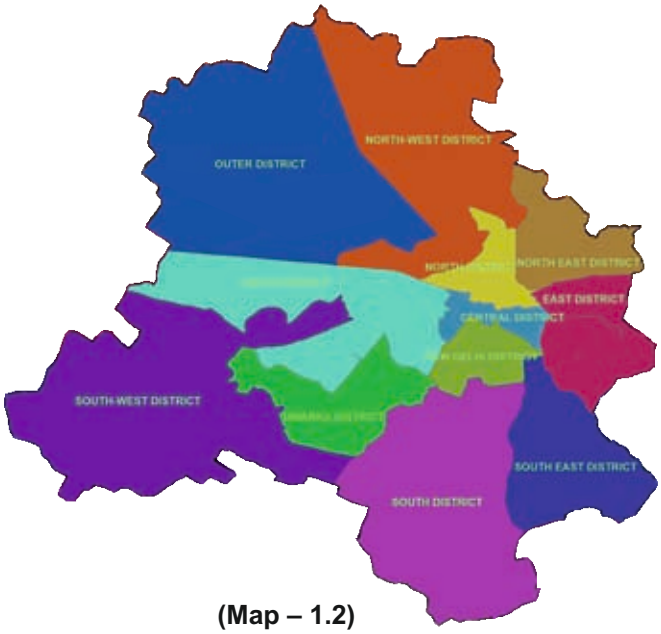
and night shows that in 2018, 743 fatal accidents occurred during the day whereas 914 occurred during the night.

- **Accidents tend to increase after 7 P.M till 2 A.M on all days of week** as during these high congestion hours, commercial vehicles also start moving in Delhi, due to lifting of restrictions of no entry for them.
- **The spatial distribution is uneven. The concentration of accidents is high in densely populated areas. Fatal accidents are more in areas where there is a dangerous mix of vulnerable road users and heavy and high speed vehicles.**
- **National highways and major roads of the city are more accident prone due** to heavy movement of commercial as well as other vehicles. As a result, traffic problems such as congestion, delays, overcrowding of buses, pollution and increased road accidents need to be tackled by the traffic managers.
- **In 2018, 110 cluster points were identified as Accident Prone Zones,** as per the criteria of 3 or more fatal accidents within a diameter of 500 meters or 10 or more total accidents in the same region. The alphabetical list is at Table no 10.2.
- **The Ring Road (22), Outer Ring Road (14), GTK Road (12), Rohtak Road (9) and Grand Trunk Road (5)** have the maximum number of dangerous stretches on them.
- **Behaviour pattern of road users/ motorists have a direct link with the occurrence of accidents. Road safety laws improve road user behaviour, a critical factor in road safety, to reduce road traffic crashes, injuries and deaths.**
- In the year 2018, a **total of 67,04,560 challans (63,40,542 compounded and 3,64,018 in court) were issued from which a total amount of Rs. 1,109,151,600/- was realised as compounding amount** (challan amount).
- **Prioritizing the needs of vulnerable road users and recognizing the importance of the built-up environment when making policy decisions with appropriate modifications to the physical road environment and setting up a supportive policy framework can bring down accidents.**
- **Modifying the environment while protecting road users from unacceptable levels of risk, as well as building bicycle and pedestrian lanes, tunnels and car-free play areas, other environmental solutions can be implemented to separate and protect these road users.** Where road users cannot be separated, the strategy should acknowledge the need to give **pedestrian safety priority over vehicular traffic – particularly by reducing speed.**

TRAFFIC RANGES(6)

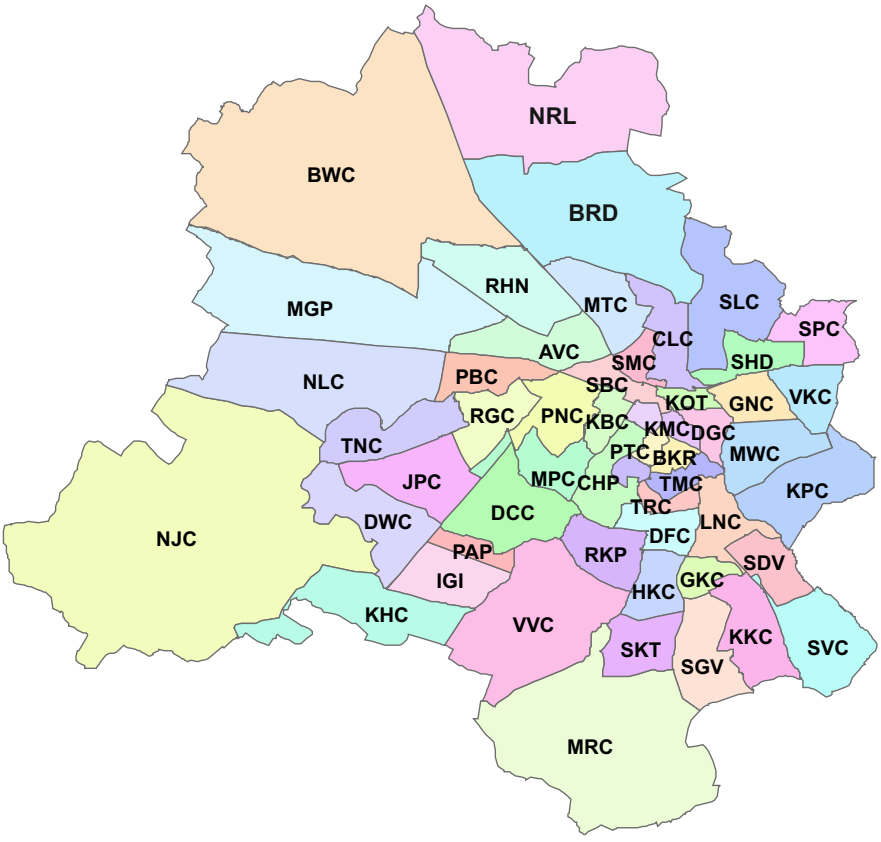
(Map – 1.1)

TRAFFIC DISTRICTS (12)



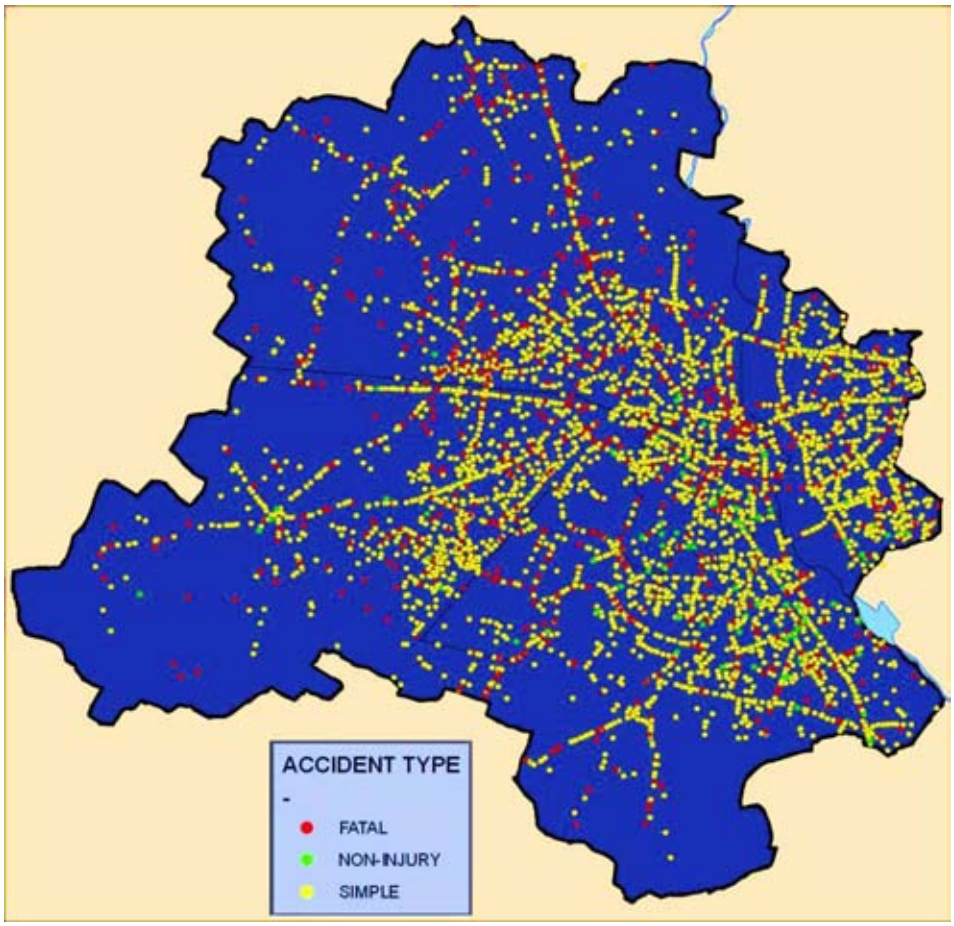
(Map – 1.2)

TRAFFIC CIRCLES



(Map – 1.3)

ROAD ACCIDENTS IN DELHI -2018



(Map – 1.4)

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