

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.

A number of countries have achieved sustained reductions in traffic-related injuries and fatalities through effective road safety programmes and legislative changes. The most positive changes to road user behaviour happen when road safety legislation is supported by strong and sustained enforcement, and where the public is made aware of the reasons behind the law and consequences of non-compliance.

The following are the efforts made to improve driving habits, behaviour, to curb the violations through special enforcement drive by Delhi Traffic Police.

Use of motorcycle helmets:

What is known?

- Wearing a motorcycle helmet correctly can reduce the risk of death by almost 40% and the risk of severe injury by over 70%.



- When motorcycle helmet laws are enforced effectively, wearing of helmets can increase to over 90%.
- The effectiveness of motorcycle helmets in reducing head injuries is in part, a result of the quality of the helmets. Requiring helmets to meet a recognized safety standard is important to ensure that helmets can effectively reduce the impact of a collision to the head in the event of a crash. (Source: WHO: Global Status Report on Road Safety 2013)

U/s 129 of the Motor Vehicles Act 1988, every two wheeler rider including pillion rider is required to wear helmet while driving.

- Use of helmet by two wheeler riders has also been made compulsory in the traffic laws and strict enforcement is being done by Traffic Police besides creating awareness by its Road Safety Education cell. Yet, lot of people wear helmet only due to fear of prosecution and not for their safety. The tendency of people not to wear helmets or wear sub-standard helmets puts the risk of injury.
- In the year **2016, 888,941 riders and 396,140 pillion riders were prosecuted by Delhi Traffic Police for not using helmet (Table 8.1).**

Seatbelt use:

What is known?

- Wearing a seat-belt reduces the risk of a fatality among front seat passengers by 40-50%.

- Study suggests that seat-belts can reduce fatalities among rear-seat car occupants by 25-75%.
- Mandatory seat-belt laws, their enforcement, and appropriate public awareness campaigns have been shown to be very effective in increasing rates of seat-belt wearing. (Source: WHO: Global Status Report on Road Safety 2013)

Seatbelts have been made a compulsory fitment in four wheeled vehicles for drivers and co-passengers. Both are required to wear seatbelts, when the vehicle is in motion.

- Driving without using seatbelt is a punishable offence u/s 138(3) CMVR 1989. But still, many car users and HTV, LGV and bus drivers tend to violate this law. Traffic Police has been challaning these violators extensively.
- Road Safety Awareness campaigns have been launched time to time and wide media publicity is given to make people aware of use of seat belts as a safety precaution.
- In the year 2016, 231,813 people were prosecuted by Delhi Traffic Police for driving without seat belt, as against 220,047 in 2015 (Table 8.1).

Drinking and Driving:

What is known?

- Drinking and driving increases both the risk of a crash and the likelihood that death or a serious injury will result.
- The risk in involvement in a crash increases significantly above a blood alcohol concentration (BAC) of 0.04 g/dl.
- Laws which establish lower BACs (between zero and 0.02 g/dl) for young/novice drivers can lead to

reductions between 4% and 24% in the number of crashes involving young people.

- Enforcing sobriety checkpoints and random breath-testing can lead to reductions in alcohol-related crashes by upto 20%, and has shown to be very cost-effective. (Source: WHO: Global Status Report on Road Safety 2013)

Driving under the influence of liquor/drugs is a punishable offence u/s 185 M. V. Act 1988. Drunken driving has proved to be one of the major causes of traffic accidents.

- Moreover, around 41.8% fatal accident cases are 'hit and run' cases owing to which the drunken driving factors cannot be officially established in those cases. However, the prosecution statistics in this account is sufficient to draw the inference.
- Efforts were made to reduce the number of accidents caused due to drunken driving by increasing the prosecution of drunken drivers. In the year 2016, **a total of 28,006 persons were caught and prosecuted** on this account, but the real number of culprits driving under influence of liquor may be much higher than the prosecution figures show as all offenders are not caught.
- However, with continuous pressure and **strategic prosecution by launching special drives by Traffic Police till late in night**, there has been a positive impact on the reduction of road accidents.

Hit and Run Cases

- Of **1548** fatal accidents, 647 or 41.8% were hit and run cases in 2016, while last year 39.4 % cases were in hit and run category. In terms of **total accidents, 1936 (26.25%) were of hit and run** in the year 2016.

- Most accidents occurred at nights when there were no eye witnesses to such occurrences. The apathetic attitude of people generally leads to such category of accidents remaining unsolved. Often, passers-by try to ignore or avoid getting involved in helping the accident victims on the pretext of not having time or avoiding legal hassle.

Mobile Phone

Mobile phone use creates various types of distraction: visual, auditory, manual and cognitive. Texting involves cognitive distraction, as well as longer periods of both manual and visual distraction.

- Evidence shows that the distraction caused by talking on mobile phones can impair driving performance in a number of ways, e.g. longer reaction times (notably braking reaction time), impaired ability to keep in the correct lane, and shorter following distances. Texting also results in considerably reduced driving performance, with young drivers at particular risk.
- Four-fold increase in crash risk when talking on a mobile phone while driving
- The use of mobile phone while driving falls under dangerous driving and hence is a punishable offence U/s 184 M.V. Act 1988. It has now become a virtual menace for safe driving on Delhi roads.
- In the year **2016,- 205,470 people were prosecuted by Delhi Traffic Police for dangerous driving** as against 236,930 in 2015 (Table 8.1).

Speed

What is known?

- An increase in average speed is directly related to the likelihood of a crash occurring and to the severity of the crash consequences.
- A 5% increase in average speed leads to an approximately 10% increase in crashes that cause injuries, and a 20% increase in fatal crashes.
- Pedestrians have a 90% chance of surviving a car crash at 30 km/h or below, but less than a 50% chance of surviving impacts of 45 km/h or above.
- Safe speed thresholds vary according to different types of road, different types of collision and different road users, with their inherent vulnerabilities. Effective speed management needs to take these and other variables into account.
- Zones of 30 km/h can reduce crash risk and injury severity and are recommended in areas where vulnerable road users are particularly at risk.
- Apart from reducing road traffic injuries and deaths, lowering the average traffic speed can have other positive effects on health outcomes (e.g. by reducing respiratory problems associated with car emission). (Source: WHO: Global Status Report on Road Safety 2013)

U/s 183 of the Motor Vehicles Act 1988, every driver of the motor vehicle is required to follow the speed limit as notified for the road.

- In the year **2016,- 86,771 drivers were prosecuted for driving at a speed exceeding the speed limit of the road** as against 240,954 in 2015.

Use of child restraints

What is known?

- Children who are unrestrained in a car are at increased risk of injury and death in the event of a collision. Appropriate child restraint systems, which include child seats for infants and booster seats for older children, are designed with the child's developmental stage in mind. They work to secure the child in a way that reduces the chance of a severe injury occurring.
- If correctly installed and used, child restraints reduce deaths among infants by approximately 70% and deaths of small children between 54% and 80%.
- Mandatory child restraint laws and their enforcement lead to an increase in the use of child restraints. (Source: WHO: Global Status Report on Road Safety 2013)

Lane Driving

- The **Hon'ble Supreme Court of India has ordered for commercial vehicles to move in extreme left lane (Bus lane)** and disallowed other private vehicles in this lane. The huge traffic volume on all roads requires heavy deployment to enforce this rule by Traffic Police.
- Moreover, **vehicles continue to change lanes without following the rules/regulations**. This tendency is more rampant in two wheeler riders. **Traffic Police has been launching special drives against such offenders** regularly.
- Commercial **vehicles are impounded**

under the 'Violation of Hon'ble Supreme Court's Directions' and their permits are suspended for mandated periods to deter them to repeat their violation.

- Besides, **Road Safety Education** is imparted to a cross section of the society along with media campaigns, social media outreach and FM radio broadcast.
- Traffic Police also launches regular special enforcement drives against these types of violations with strict prosecution. During the year **2016, a total of 5,823 vehicles were prosecuted** under the offences 'Violation of Hon'ble Supreme Court Guidelines' as against 10,030 in 2015.

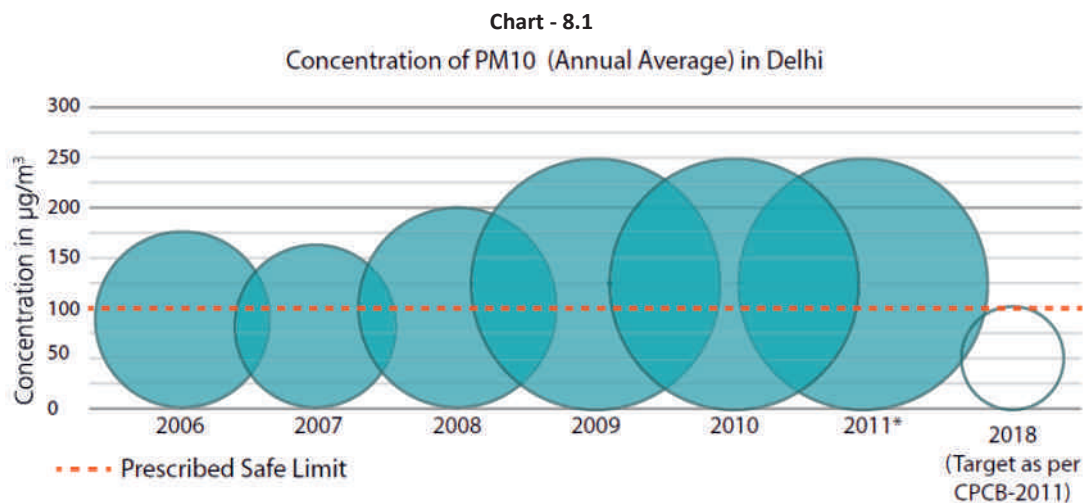
Environmental challenges for Prosecution

Delhi has lost its air quality gains of the first generation action which included large scale conversion of public transport buses and three wheelers to natural gas, relocation of polluting industries and improvement in emission standards for vehicles, among others.

- The sharp increase in vehicle numbers due to increased dependence on personal vehicles in lieu of adequate, comfortable and efficient public transport services and walking and cycling facilities.
- Worsening air pollution levels in recent times. Both particulate levels (PM 10 and PM 2.5) as well as nitrogen oxides are increasing steadily. The reference of PM 10 levels can be seen in Figure 8.1. Ozone which was not a problem earlier is rising again. During winter PM 2.5 levels are normally 3 to 4 times higher than the standard and during smog episodes it can go as high as 7 to 8 times the standard. This has serious public health consequences.

TABLE-8.1
PROSECUTION AGAINST VIOLATION OF RULES – 2016

S.NO.	VEHICLES	NO USING SEAT BELT	RIDER W/O HELMET	PILLION RIDER W/O HELMET	DRUNKEN DRIVING	DANGEROUS DRIVING
1.	HTV	27382	0	0	249	70851
2.	LGV / MMV	62593	0	0	760	86644
3.	D. VAN	771	0	0	332	4214
4.	PVTSTA	139	0	0	2	243
5.	CHARTPVT	6044	0	0	22	4763
6.	DTC	231	0	0	2	2581
7.	TRAILOR	0	0	0	1	516
8.	SCHOOLBUS	220	0	0	9	363
9.	ROADWAYS	123	0	0	1	1068
10.	RTV	1532	0	0	11	664
11.	CALLCENTRE	5067	0	0	18	143
12.	TAXI	20782	0	0	612	2673
13.	CARJEEP	105824	0	0	7935	20102
14.	TRACTOR	0	0	0	17	98
15.	TSR	0	0	0	594	1029
16.	SCMC	0	888941	396140	17323	6214
17.	GSEWA	27	0	0	41	473
18.	CLUSTERBUS	273	0	0	9	2221
19.	INTERSTATEBUS	603	0	0	7	397
20.	E RICKSHAW	0	0	0	44	157
21.	OTHERS	202	0	0	17	56
TOTAL CHALLAN		231813	888941	396140	28006	205470
COMPOUND CHALLAN		231609	887977	395925	0	179249
COURT CHALLAN		204	964	215	28006	26221



*2011 averaged for 5 stations of DPCC till October 2006- 10 data of CPCB

Delhi losing Air Quality gains of CNG conversion, due to the exponential increase in private vehicles

Source : CPCB, 2011

- At present, Delhi's vehicular population is over 97 lakhs which is distributed over a human population of approximately 185 lakhs, indicating a high number of vehicles per lakh human population.
- **Inferior and adulterated fuel quality, poor motor vehicle maintenance, inadequate traffic planning are some of the major contributors for increase in vehicular pollution** particularly in city areas.
- Regular measurement of air pollutant and monitoring of air quality, establishment of realistic air quality standards, source inventories, understanding on seasonal variations of air pollutant in the ambient atmosphere are some of the important factors of any pollution management scheme.
- **To mitigate vehicular pollution** the following environmental challenges are being faced by Delhi Traffic Police for which necessary **prosecution action and regulations measures are ensured by Delhi Traffic Police:-**
 1. Action against polluting **vehicles plying without PUC** and visible polluting vehicles.
 2. Action against vehicles **carrying construction and allied material without proper covers** in goods vehicles.
 3. Action **against 10 years old diesel and 15 years old petrol driven vehicles** alongwith challaning and impounding of 15 years or more de-registered diesel motor vehicles.
 4. Action against **parking of motor vehicles on metalled roads** in Delhi.
 5. Action against **pressure horns and modified silencer** in motor vehicles.
 6. Returning of **non-destined goods vehicles** from Delhi borders.

Table 8.2

PROSECUTION AGAINST NON DESTINED VEHICLE /15 YRS OLD VEHICLES/ WITHOUT PUC/ BUILDING MATERIAL

YEAR	BORDER CHECKED/NON DESTINED VEHICLE		15 YRS OLD VEHICLE		WITHOUT PUC VEHICLE	BUILDING MATERIAL
	CHECKED	RETURNED	CHECKED	IMPOUNDED	CHALLAN	CHALLAN
2016	81023	14983	77274	79	8845	138
