

7

CHAPTER

CAUSES OF
ROAD ACCIDENTS

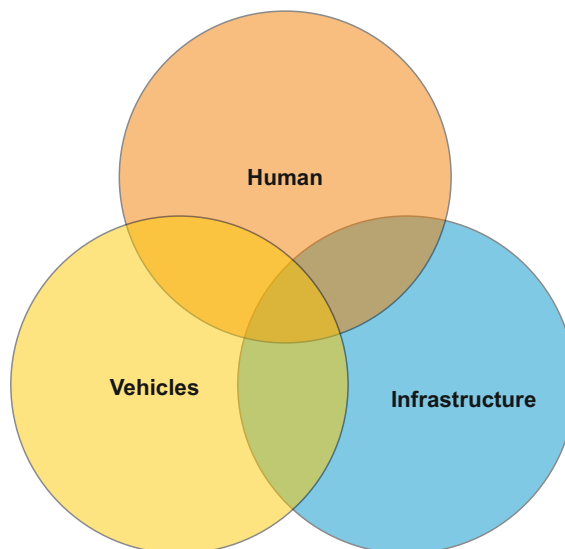
Road traffic accidents are primarily influenced by three main factors:

- Human (drivers, riders, vehicle occupants, pedestrians and cyclists)
- Vehicle (vehicle design/structure, mass, equipment such as seatbelts or tyres, etc.)
- Infrastructure/Environment (hereinafter called “infrastructure” and comprising of roads, signages, weather, conditions affecting visibility, etc.)

Accidents are caused by the malfunction/failure/error by one or more of these above factors.

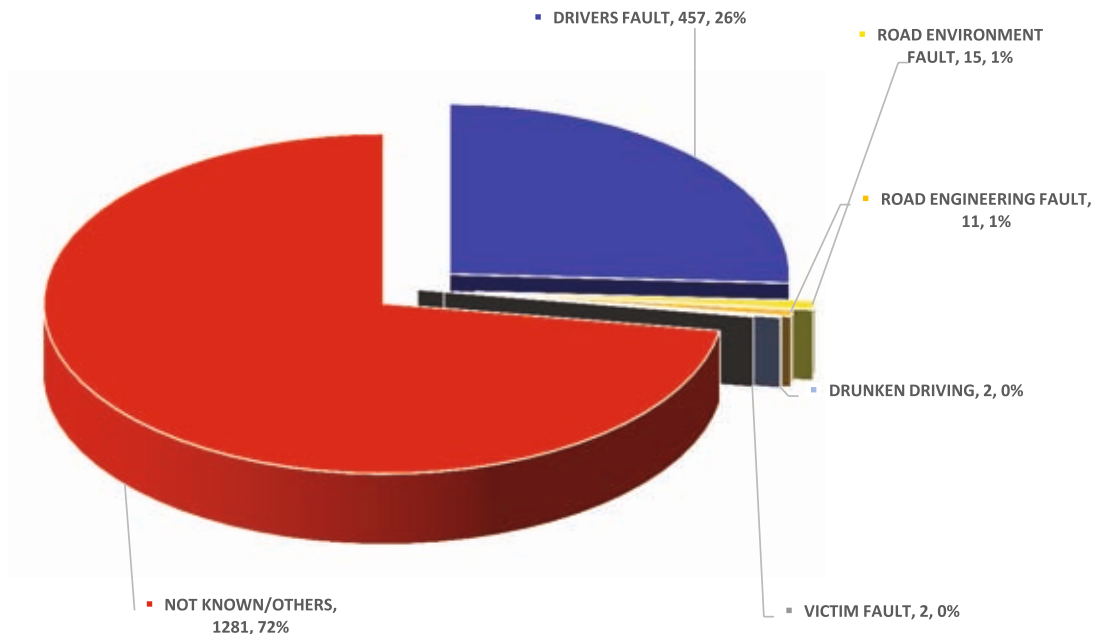
An accident is a man-made tragedy and at some level, all accidents are preventable. There may be a lapse on the part of the driver or the victim, directly or indirectly who was unable to exercise control over self or vehicle.

However, other factors or causes also play their part in the occurrence of the tragedy. As such, there may be more than one cause responsible for an accident. There are other human interventions/reasons besides driver(s) of the vehicle in the occurrence of an accident.



- A study was conducted to identify various causes of accidents. These factors can be broadly categorised into the following: -
 1. Driver's fault.
 2. Victim's fault.
 3. Vehicle mechanical fault.
 4. Road environment fault.
 5. Road condition / faulty road design / road engineering.
 6. Other reasons.
- There may be more than one of these factors responsible for an accident.
- An analysis done on the causes of fatal accidents that have occurred during the year 2018 found that around 26 % of the total causes account for driver's fault.
- In 72% of the cases, the real cause was not known. This figure mostly comprises of hit and run cases.
- Only 01% causes are related to road environment factors and 01% are related to faulty road engineering/design.
- 02% accidents were solely due to victim's fault and only 02 fatal road accident cases were due to drunken driving. {Figure 8.1 (a)}.

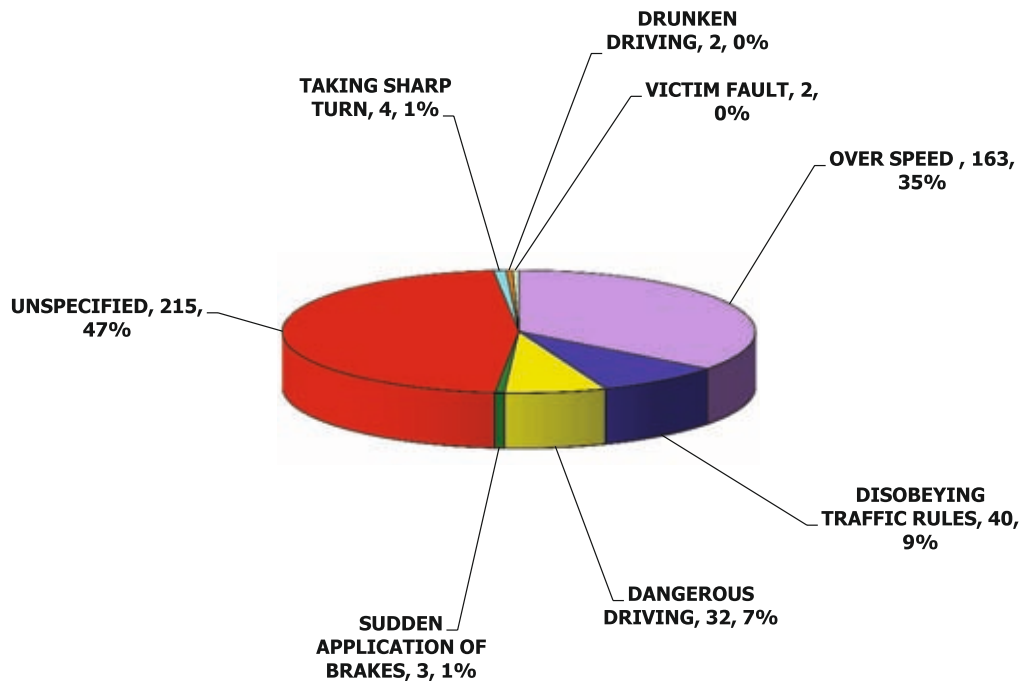
Figure 7.1 (a)
Causes of Accidents-2018



Driver's Fault:

- This category refers to the accused driver's negligence that is found primarily responsible for committing an accident. This can further be broken down into:-
 1. Over speed of vehicle.
 2. Disobeying Traffic Signals.
 3. Dangerous / rash driving.
 4. Lane indiscipline.
 5. Sudden application of brakes.
 6. Drunken driving.
 7. While reversing of vehicle.
- Of 457 total cases under driver's fault; **35% were caused due to over speeding, around 7% were caused due to dangerous driving**, around 09% were due to disobeying traffic rules, 01% were caused due to sharp turn and 1% due to sudden application of brakes. In around 46% of such causes, the fault was not specified. In 2 cases i.e. 1% of the causes of driver's fault were confirmed cases of drunken driving.

Figure 7.1 (b)
DRIVERS' FAULT



Victim's Fault:

- Victim's fault relates to an act/omission/lapse etc. on the part of either driver/rider of the vehicle who has sustained damage/injury (or death). This factor can further be broken down as:-
1. Rash driving by victim.
 2. Abruptly crossing the Road.
 3. Lane indiscipline.
 4. Boarding/de-boarding a moving vehicle.
 5. Sudden application of brakes.
 6. Victim vehicle without light.
 7. Drunken driving.
- In the analysis of 2 cases (1% of total causes) of 'victim's fault', it was found that in **100% cases, the victims were responsible for rash driving.**

or temporary factors/conditions that existed on road which are not congenial to smooth and safe road traffic and that may lead to an accident. This factor can further be broken down as:-

1. Poor Light Condition
2. Weather condition.
3. Unguarded civil work etc.
4. Slippery road.
5. Light reflection from front.
6. Encroachment on road.

- An analysis of 15 cases (**01% of total causes**) of '**road environment fault**' showed that 40% cases were due to unguarded civil work, 33% cases were due to poor light condition, 13% cases were due to bumpy road, 7% were due to hole or pit on the road, and 7% due to slippery road.

Road Environment Fault:

- 'Road Environment Fault, refers to ad-hoc

Figure 7.1 (d)
ROAD ENVIRONMENT FAULT

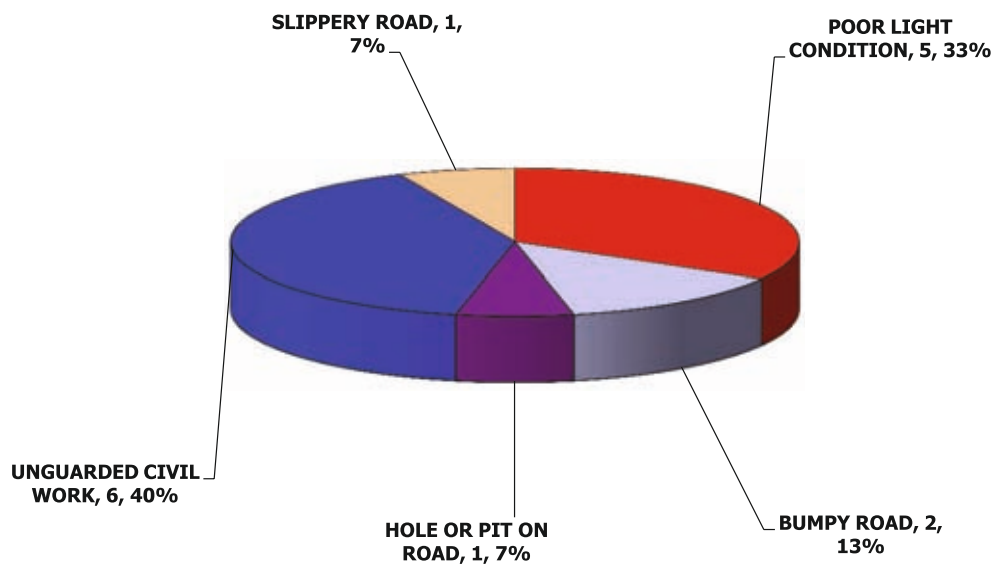
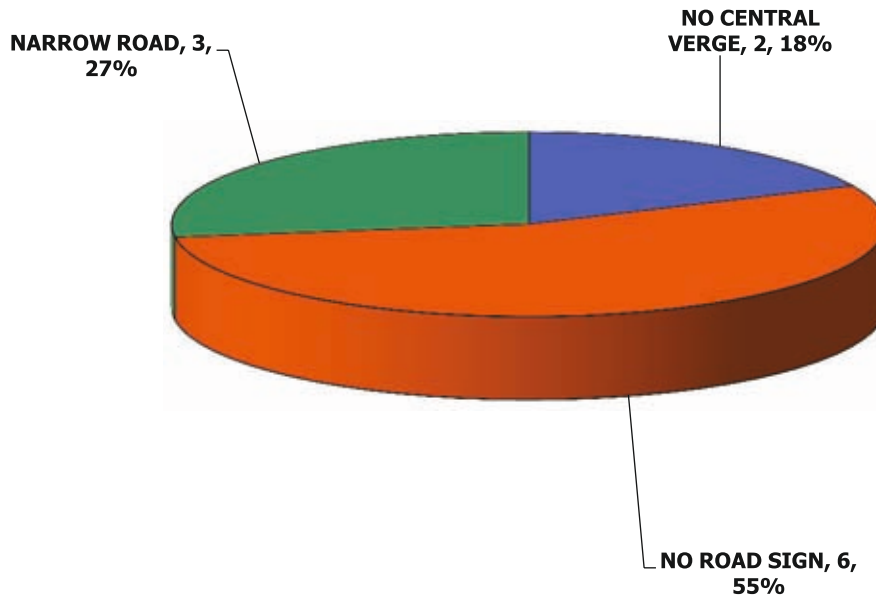


Figure 7.1 (e)
FAULTY ROAD CONDITION / DESIGN



Faulty Road Condition / Design:

- 'Faulty Road Condition / Design', refers to factors or conditions which are either **part of lay out or design or defects in the construction of road**. These factors/conditions may arise before or after construction of the road which are not congenial to smooth and safe road traffic and may therefore lead to accident. This factor can further be broken down as:-
 1. No central verge etc.
 2. Hole or pit on road.
 3. Faulty road design.
 4. Narrow road.
 5. Sharp curve.
- **Faulty road engineering/design are responsible for 11 i.e. 01% of total causes of fatal accidents in the year 2018.** Out of these causes, around 55% cases were due to no road sign on the road, 27% fatal accidents were caused due to narrow road and 18% fatal accidents were due to no central verge on road.
