11 CHAPTER THE WAY FORWARD

Suggestions: -

The numbers of road accidents occurring in a zone depends on its structural design, the type of vehicles moving through it, and the time-period of the day when more road accidents take place. Accordingly, corrective and preventive measures are required to be taken. There is no clear segregation of different types of traffic moving through an Accident Prone Zone. However, the Accident Prone Zones can be classified based on the type of victim/ offending vehicle involved in the occurrence of road accidents. Accordingly, steps can be taken to prevent road accidents. Following are some of the steps that can be taken by the agencies to prevent road accidents in the Accident Prone Zones:

I. Pedestrian Accident Prone Zones:-

1. These are places which lack safe pedestrian facilities for movement i.e. footpaths, road crossings (FOBs, skyways) and boarding places (safe platform for waiting and boarding a bus/TSR, Gramin Sewa etc.). Such facilities should be provided for safe crossing of pedestrians.
2. Speed is one of the main contributing factor in the occurrence of an accident resulting into fatality, particularly on the National Highways and other major arterial roads, thus speed needs to be slowed down with provision of speed calming measures.
3. Table top with speed calming surface can be constructed in the common area of the intersection to control and reduce speed.
4. Fixing of grills with adequate height on the central verges at places where accident of pedestrian occurs while crossing the road. This can be undertaken after making safe passage for pedestrians to cross the roads.
5. The place where speed calming measures have been provided needs to be adequately equipped with proper sign boards and reflectors which should also be properly illuminated.

6. The road markings and signages should be visible round the clock.
7. Repairing/re-fixing of worn out speed calming measures like rumble strips, pseudo speed breakers and fixing of cats eye should be undertaken periodically by the agencies.
8. Wherever, there is heavy pedestrian movement at the intersections like Peera Ghari chowk, etc., it generally creates conflict with the vehicles. This makes them unsafe and also obstructs the vehicular movement which adds to congestion and pollution. Provision of elevated guided paths/FOBs can be designed for safe movement. This will ensure safety of pedestrians and would also help in checking of traffic congestion.
9. The arrangement of making FOB with guided paths should be preferred over pelican crossing or red light crossing for pedestrians on NHs and high-speed corridors because:
   a. The risk factor is higher in signal crossing due to possibility of human error and high speed of motor vehicles on corridors, especially during lean

hours/night hours.

b. Halting of traffic even for few seconds or minutes adds to congestion and pollution, especially during peak hours.

c. Halting and slow movement of traffic on mass level adds to the burden on GDP due to extra fuel burning.

d. Increases frustration in the minds of drivers and the pedestrians which sometimes lead to incidents of road rage.

10. Location of FOB and its entry/exit point should be such that it is easily accessible to pedestrians, so that they make optimum use of the same.
11. Places where FOBs are needed should be identified and recommended.
12. Those FOBs/subways which are not being used should be modified / improved/ relocated, so that it is optimally used. Escalators can be provided to make it more effective.
13. There should be proper and systematic placement of public transport exchange facility like auto rickshaws, city buses and interstate buses at the multi modal hubs like ISBT or Dhaula Kuan, Mukarba chowk, Peeragarhi chowk so that passengers interchange them easily (even with luggage or children) and safely cross from proper/safe platform, without risking their lives.
14. Information regarding the modes of transport available for the users at the exchange hubs like ISBT and Mukarba chowk etc, should be more expressive and more user oriented so that people, particularly new comers can easily access information. This information can be in the form of:

    a. Route maps of the DTC/Cluster buses which may be displayed at the bus stands.

    b. Direction boards for the passengers to get to the next connecting mode of transport or to reach nearby important places safely through footpaths and foot over bridges.

15. Planning of auto rickshaw stands and bus stands should be properly undertaken so as to avoid halting and boarding/de-boarding at the end/start of flyover. Such places become prone to accidents and add to the traffic congestion.
16. Boarding/de-boarding in interstate buses from road outside the ISBT bus stand needs to be stopped and enforced as the waiting place of such passengers on road is found to be cluster point of accidents.

II. TWO-WHEELER ACCIDENT PRONE ZONES:

1. Effective prosecution/education is required at such locations.
2. The merging of minor roads, having movement of two-wheeler and slow-moving vehicles need to be studied and planned to avoid direct merging into highways and other major roads.
3. Speed calming measures should be provided.
4. Slow moving vehicles and two wheelers prefer to take a short cut by moving in the wrong direction to cross the road, if 'U' turn or proper road crossing passage is far away. Such wrong side movement on the main road can be prevented by making underpass or providing service roads.
5. Conflict points in traffic movement should be detected and should be made safe, for example, at such places like:

    a. Merging points of traffic at the end of the flyover

    b. Small road stretches between two

flyovers that have common entry – exit into and out of the fly over.

c. Perpendicular movement of traffic/pedestrian at the end of flyover or flyover loop.

6. Pseudo two-wheeler tracks can be tested for safe and disciplined movement of two wheelers on major roads at two-wheeler Accident Prone Zones.
7. 2534 people were injured and 570 lost their lives in two-wheeler accidents in the year 2018. Most of these deaths are caused due to head injury.

A (head immunization) Road safety initiative for two-wheeler riders can be started at state level involving all the stakeholders. It would be like pulse polio immunization programme which shall include free distribution of ISI marked standard helmets to all persons (rider/pillion rider/male/female) prosecuted for without helmet in two-wheeler riding.

Free-to-use helmets can also to be provided at important junctions/places/metro stations etc. with the use-and-return policy.

If this becomes successful its cost would be less than the loss borne due to two-wheeler accident injuries/deaths.

III. CYCLIST ACCIDENT PRONE ZONES:

1. Cyclist become victim in road accidents on the following accounts:
   a. Lack of NMV lanes on straight stretches of road.
   b. Lack of safe road crossing facility on wide road near/at the intersection.
   c. Darkness during night (where there is poor illumination) as cycles do not have light source of their own.
2. To prevent such road accidents illumination on roads should be given importance, particularly in the outer and rural areas and places where there is heavy movement of cycles. Many stretches of NHs, Outer ring road and other arterial roads remain dark and become the cause of accident. Illumination is important in preventing pedestrian and cyclist accidents.
3. Distribution of reflective stickers/jackets should be undertaken in cyclist Accident Prone Zones. It can be distributed during evening peak hours in corridors having heavy cyclist movement, so that it goes to actual users.
4. Planning of intersections should be carried out as per the composition of the vehicular movement for eg. at Shastri park red light, importance may be given to the movement of the cycles, cycle rickshaws and slow-moving vehicles. Traffic experts can be involved for suggesting measures in controlling accidents involving cyclists.
5. More number of FOBs/subways/small under passes should be provided on 6 and 8 lane roads, NHs for safer crossing on such roads for pedestrians, two–wheelers and slow-moving vehicles of local residents.
6. Conflict points in traffic movement should be detected and corrected by the agencies to be made safer for all.

IV. ACCIDENT PRONE ZONES OF HIT AND RUN CASES:

1. CCTV camera should be installed at these points to identify the motor vehicles at fault.
2. CATS Ambulances and PCR Vans halting points can be made near such points to check hit and run cases and for immediate post-crash care.

V. HTVs ACCIDENT PRONE ZONES:

1. Effective and stringent prosecution of the offenders along with education measures of the respective type of vehicle involved in the accident at and near such locations.
2. Conflict points in traffic movement need to be identified and detected to make them safe.

VI. ACCIDENT PRONE ZONES DURING NIGHT HOURS:

1. Proper illumination through provision of adequate street lighting needs to be undertaken at such locations.
2. Dark spots should be identified and taken up with concerned agencies for undertaking necessary development of infrastructure in order to make them safe.

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