

ROAD SAFETY AND ACCIDENT PREVENTION IN INDIA

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Abstract - In our country maximum death occur due to road accidents and more than people killed in terrorism. It is one of the major loss to India caused by a human error. This contribute to major family suffering and income for dependents and pain for life time or temporary or partial.. Government and NGO's have taken many activities, awareness program, and distribution of pamphlets, posters, short movies and etc to come the accident rate and by implementing various road safety programs.

Every year more than 1.5% increase in road accident and it is approximately more than 6 lakh road accidents in India, for every one minute one road accident and for every 4 minutes one death due to road accident . India is losing very huge youth as the maximum death age group are from 16 to 30 years European countries, American and middlest countries have very less road accident by adopting multi approach road safety and traffic management. In many countries driving license will be issued only for 2 years and must get renewed driving license after attending training program with driving tests .Many improvements have taken and taking place in the design and quality of road construction. Many safe transport system, safe vehicles, law are in place. Present quick accident response as been done by using toll free numbers like 108 and Supreme Court as passed order all hospital must treat road accident victims immediately and police must not ask or torches the people who help accident victim to bring them for hospital .Road safety is involved by many agencies like Health ,Police ,Pollution Control Boards, Transport dept and NGO's .Road accidents study gives the information to make suitable changes that is required to save life's.

Key Words: Road Safety, Accident Prevention, Pedestrian Safety,

1. INTRODUCTION

The main causes for road accidents in India are use of mobile phones while driving, sending messages, handling of mobiles or not concentration while driving or alcoholic or lack of sleep etc., are some of the causes that may lead to human tragedy in road accidents. It involves very high cost which cannot be filled by money or any other, as cost may be permanent suffering for person injured loss of earning for the family members and even death. Government and NGO's have made many efforts and taken many programmes and awareness to reduce the accidents by means of law and also educating the school & college students and they forcing and pressuring their family members to follow road safety rules .The data shows situation has improved a lot .As per data

available nearly 0.5 million accident occurred and more than hundred thirty thousand people are involved in it in the year 2010. One of the most alarming information is we have young people are involved in this accident at the rate of one death in every four minute. Most of the people involved in accident are bread earner for the family. Many of the road accidents can be avoidable Many countries have brought down the road accident to very very less by adopting multiple ways to road safety like increasing road width ,adopting more than 3 lanes in a stretch, slow moving vehicles at one side, some types of vehicles not allowing on road, avoiding road junction, change of road from direction to other only by flyovers, construction of subways or over bridge for pedestrian crossing, adopting latest infrastructure and traffic management. Continues improvement in quality and changes adopted in road construction, Changes are made in laws, emergency rescue team at certain locations. Many other agencies like hospitals, road construction wings, TO, Police and transport unions must involve in the decision making. This case study will help in making changes in road safety.

1. India's Scenario in Road Traffic Accident

In our country people are killed more in road traffic accident, 4 times the more than people killed in terrorism in the world. As per the records more than 1.25lakhs have lost their lives in the year 2014 and almost 350 death per day .Most of the incidents were due to over speeding, drink and driving, over loading, high speed vehicles, teenage drivers without driving license and not concentrating while driving. Predictably, most of those who die on the roads perish because of preventable causes: speeding, drink driving and overloading.

The large number of deaths among pedestrians death use mostly because of people not using footpath and walking on road, pedestrians not using zebra crossing, crossing roads as they like by not seeing the vehicle directions, not using subways or sky walkers, using mobile phones or listening to music while crossing the road and also observing or watching advertisement boards etc. In cities or in busy streets motorcyclist are using footpath as their way to avoid traffic jams and this is also one of the cause for pedestrians to meet the accidents. The percentage of accidents is drastically increasing year by year as per the governments report.

As per the data, majority of the death or permanent disability is been caused by driver's fault due to various reasons and most predominately are over speeding, drunken driving ,wrong side entering or overtaking and signal jumping or not showing signals.

SPEED

The main cause for accidents on our roads is speed. It is the primary factor for the maximum number of Permanent disability and deaths. Approximately 40% of road traffic accidents are due to speeding of vehicles. As per the data available for past many years also the main cause for accidents are speed and more than 0.5 lakhs death has occurred on our roads in the past several years.It can be easily controlled and small reduction in speed can save several life. Speed can control in heavy vehicles by adopting speed governors or using GPS or fitting In -vehicle monitoring system(IVMS).

If any person hit by moving vehicle at a speed of 35km/hr, as per case study there are chances of victim death about 10%. If the vehicle is moving more than 40km/hr, then chances are nearly 90% death.

Now government in progress of constructing new roads at the rate of 40KM per day to improve infrastructure and to avoid road accidents, traffic jams, etc., As numbers of vehicles registered in alone Bangalore is more than 55 lakhs and every month 10000 new vehicles are added .

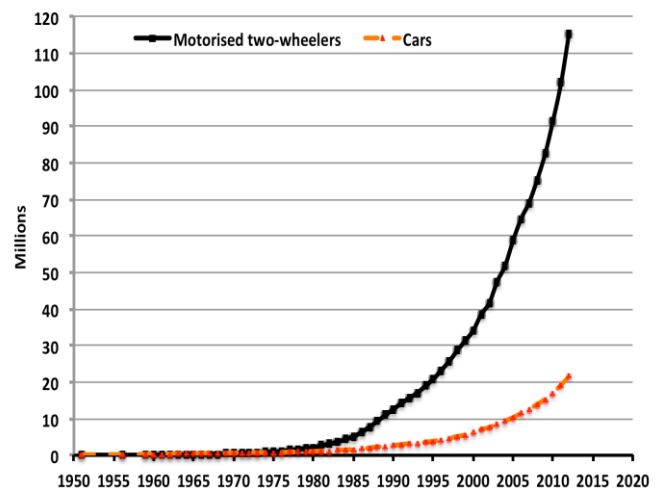
Table -1:

| Road Accident Analysis | | | |
|--|--------|---------|--------------|
| Parameter | 2013 | 2014 | % of changes |
| Accidents | 486476 | 489400 | 0.6 |
| Fatalities | 137572 | 1399671 | 1.5 |
| Permanent or disabled partial disabled | 494893 | 493474 | 0.3 |
| Severity Ratio* | 28.3 | 28.5 | 0.7 |

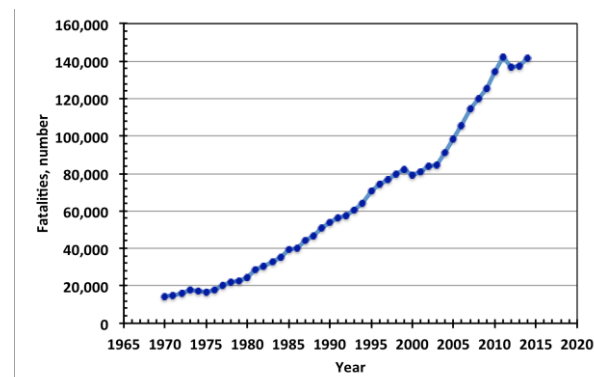
* No. of persons killed per 100 accidents

Table -2:

| Accident Analysis Parameters | | | |
|--|-----------|---------|---------|
| Parameter | Accidents | Killed | Injured |
| Fault of Driver | 486476 | 489400 | 0.6 |
| Fault of Driver of other vehicle | 137572 | 1399671 | 1.5 |
| Permanent disabled or partial disabled | 494893 | 493474 | 0.3 |
| Vehicle fault | 28.3 | 28.5 | 0.7 |
| Road condition (pot holes/humps/sudden narrow etc) | 8345 | 3456 | 7543 |
| Weather condition(Rain/fog) | 5961 | 2554 | 5477 |
| Poor Light | 4210 | 1802 | 4394 |
| Stray dogs/animals | 1892 | 7741 | 2237 |
| Civic bodies | 2188 | 9151 | 1867 |
| Not know | 2946 | 1091 | 2759 |



Cars and Motor cycles registered in India by year (Source: Transport Research Wing 2014)



Road traffic deaths in India 1970 though 2014 (Source: NCRB).

2. Golden Rules.

1. Always stop or dead slow at zebra crossing and allow pedestrians to cross the road. **-Stop and Dead slow in speed.**
2. Always think family members are waiting at home. Use seat belt **-Buckle up seat belt**
3. Don't jump traffic signals and don't ignore signs board— **Traffic Rules and Sign boards.**
- 4 Follow 2 seconds rules and don't speed **-Follow speed limit**
5. Daily check your vehicle before starting and follow check list **-Daily vehicle checklist.**
6. Take your time but not your life **-Don't use mobile phones while driving.**
7. No spares available wear always correct ISI mark helmet including pillow seated and don't travel more than 2 people in two wheelers. **Helmet must use properly always.**
8. Racing and stents will cause dangerous to both you and other road users— **Rash or dangerously driving.**
9. Always use road in gentleman's behavior- **Well mannered.**
10. Drinking and driving may lead to you or other road users to burial ground **-Don't drink and drive.**

3. CONCLUSIONS

- Identification of black spots/accidents prone spots.
- Emergency vehicles in highways and in cities or towns
- Round the clock accident relief team at all district head quarters.
- Blood donors list and blood bank facility at major towns.
- Road traffic rules implementation.
- Educating public on traffic rules regulations
- Facilities at road side for maintaining clean India.
- Regional transport office as per traffic density.
- 4 E's Education (ii) Enforcement (iii) Engineering (roads as well as vehicles) and (iv) emergency
- Implementing of road safety rules at all levels.
- Road safety is taken as major criteria in the planning and design of roads.
- Road Safety Audits on all Highways
- Special training for drivers driving on very/heavy vehicles/special vehicles/long body vehicles
- Training to public by e-media on road safety awareness
- the safety standards of the vehicles like power-steering ,ABS, beep sound if safety Increasing belt were not using etc.,
- No liquors shop in highways or 100 meters surrounding.
- Enforcement of strict action on overloading or load projecting outside the body.

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