ISSN No: 2348-4845

URBAN ROAD TRAFFIC SAFETY IN INDIA - AN OVERVIEW

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The rapid urbanization, revolution in the automobile industry and liberalized economy has led to tremendous increase in the ownership of vehicles. This has resulted in the change of traffic characteristics on road network, increase in the road accidents and problems of road safety especially in highly urbanized areas of India. Providing safety and security is a vital responsibility of the Government. Ensuring better traffic safety to minimizing road accidents will be a great public safety. Road traffic safety is a multi-sectoral activity in India. An attempt is made in this paper to review the road safety problem in India. Further, the study focused on the growing problem of road accidents and causes of accidents in India. One of the objectives of the paper is to comprehend and evaluate the level of adequacy of the steps taken by the government in harmonizing safety, security and sustainability in relation to urban transport.

Key words: *Urbanization, traffic, safety and accidents.*

INTRODUCTION

With the increasing urbanization, industrialization and advancement of science and technology, traversing long distances has become the order of the day. During the past one-decade there has been tremendous increase in the production of vehicles especially of four wheelers. While this increase has helped the urban dweller to overcome many of his commutation problems, at the same time, it has been creating serious problem of safety on the road. Of all the systems that people have to deal with on a day-to-day basis, road transport is the most complex and the most unsafe mode of transportation.

According to the WHO reports[1], each year nearly 1.2 million people die as a result of a road traffic collision, more than 3500 deaths each day. Moreover, twenty to fifty million more people sustain non-fatal injuries from a collision, and these injuries are an important cause of disability worldwide. Ninety percent of road traffic deaths occur in low- and middle-income countries, which claim less than half the world's registered vehicle fleet (48%). India is a leading country in this phenomenon. More than 1.42 lakh persons are killed and around half million injured in about half million reported road accidents in the country every year and social cost of road accidents constitute about 3% of the GDP.

An attempt is made in this paper to throw focus to review the growth problem of road safety in India. Further, the study discussed the growing problem of road accidents in India. One of the objectives of the paper is to comprehend and evaluate the level

1 . Global status report on road safety: time for action. Geneva, World Health Organization, 2009 (www.who.int/violence_injury_prevention/road_safety_status/2009).

ISSN No: 2348-4845

of adequacy of the steps taken by the government in harmonizing safety, security and sustainability in relation to urban transport.

ROAD SAFETY IN INDIA

Road safety is now recognized as a major socioeconomic concern. Increasing traffic volumes, the rapid growth in two- and four-wheeled traffic, and the higher speeds made possible by construction improvement and rehabilitation of roads can all add to the safety problem especially urban areas of developing countries, India is no exception. India has experienced a tremendous increase in the total number of registered motor vehicles (shown in Table-1). The total number of registered motor vehicles increased from about 0.3 million as on 31st March, 1951 to about 142 million as on 31st March, 2011, the strength rose to more than 141 millions, it means a rise of 460 times. The impact of Liberalization in the wake of globalization since 1990's had significantly added to this growth. Further, the study notices that the percentage of mass transportation is negligible. According to the Transport Ministry Report[2], the share of buses, including Omni buses, in total registered vehicles declined from 11.1% as on 31st March 1951 to 1.1% as on 31st March 2011. Other side, share of two wheelers was about 72% of the total registered motor vehicles in India as on 31st March, 2011; having increased from 8.8% as on 31st March 1951. The rapid growth in motor vehicles population has also led to the rise in road accidents.

According to official statistics[3] 4,97,686 road accidents were reported during 2011 in India. A discussion with Police officials reveals that as not all injuries are reported to the police. However, the situation in India is worsening as shown in Table. Road crash fatalities and casualties have been increasing over the past twenty years. This is partly due to the increase in number of vehicles on the road and partly due to the absence of a coordinated official policy to control the problem.

Table-2: Road Accidents in India.

Year	No.of Road Accidents	No.of persons killed	No.of persons injured
1970	14,800	14,800	70,1
1980	153,200	24,000	114,0
1990	282,00	54,100	255,0
2000	351,999	70,781	405,2
2011	4,97,686	1,42,485	5,11,394

Sources: Ministry of Surface and Transportation, Government of India, New Delhi.2011.

The table shows that Road Traffic accidents have become the single largest threat to human life in the urban areas. As per the available records, between 1970 and 2011, the number of accidents increased by 4.4 times accompanied with 9.8 times increase in fatalities and 7.3 times increase in the number of persons injured, in the backdrop of more than 100 fold increases in the number of registered motor vehicles and close to 4 fold increases in the road network. Approximately 142 thousand people are killed in road accidents and 511 thousand people meet with serious injuries every year in India, causing an annual social economic loss of Rs.55, 000 crores ($550 billion)[4]. Further, the study analyses that during 2008 one accident took place for every 184 vehicles and for every 747-vehicles one person got killed. Every hour almost 14 persons are killed on Indian roads. The below chart explains that causes for road accidents in India.

CAUSES FOR ROAD ACCIDENTS

Following chart presents the causes for road accidents in India during the year 2011.

2 . Road Transport Year Book-2010-11, Ministry of Road Transport & Highways, Government of India, New Delhi.July, 2012.

3 . Report on Road Accidents in India, 2011, Ministry of Road Surface, Government of India, New Delhi.

4 . Road Accidents in India 2011, Report- Ministry of Road Transport & Highways, Government of India, New Delhi.July, 2012.

ISSN No: 2348-4845

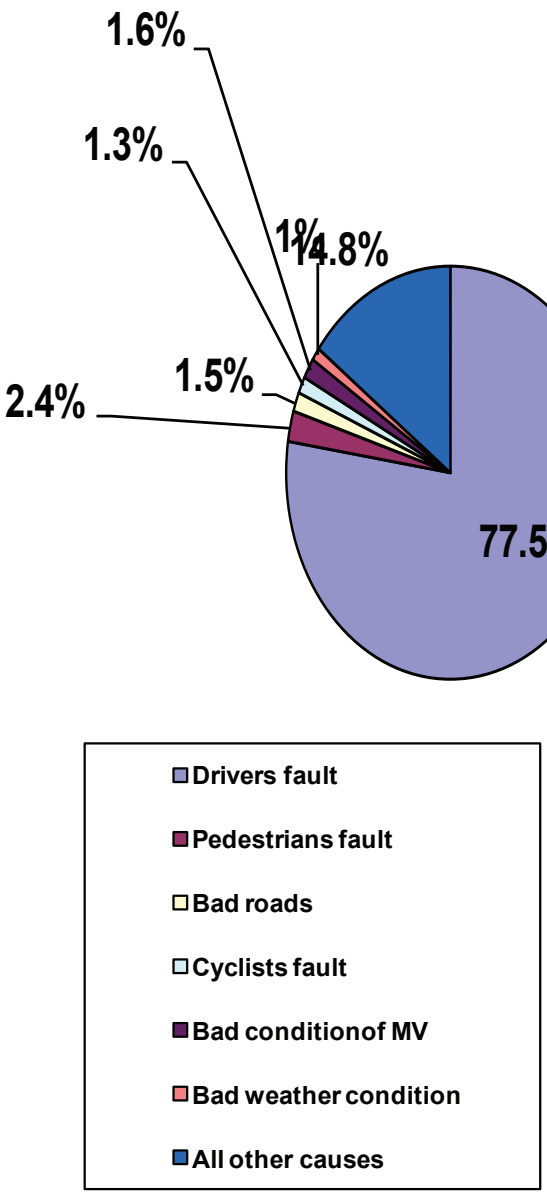

Chart-2: Causes for Rod Accidents in India during 2011.

The analysis of accidents by cause shows that drivers' fault is the single most important factor responsible for accidents. Drivers' fault accounted for about 77.5% (3, 85,806 accidents) of total road accidents during 2011. It appears that lack of awareness in road safety and proper training to the drivers is the causes for such traffic accidents. Lack of road safety strategies and allocation of funds for implementation are vital reasons for increasing road accidents in the country. Above discussion reveals that Indian roads are highly unsafe for road users. The Government needs to pay attention to peruse the matter very seriously to improve the road safety situation.

CHARACTERISTICS OF INDIAN TRAFFIC

After discussing the growth of urbanization and road safety problems in India it may be necessary to throw light on the characteristics of Indian traffic.

Firstly, Indian roads are characterized by limited width and length. On an average percentage of the land is allocated to road purposes stands between 5 to 15 percent with the average width at 30 – 40 ft., which is 60% less than the recommended norm of Indian Road Congress.

Secondly, the vehicular traffic is heterogeneous in nature. There are no less than 25 types of vehicles moving on the Indian roads.

Thirdly, the potential speed of these vehicles is also of different variations. A number of vehicles are of slow moving nature like man driven carts, animal driven carts, bicycles, etc., and these vehicles are interlinked by fast moving modern vehicles. There is no bifurcation of space on the road for fast moving and slow moving types.

Lastly, lack of awareness of traffic rules to road users is a major attribute of Indian traffic, which comes through trial and error method.

CONCLUSION

With population growth, cities have tended to sprawl and increased travel distances have made non-motorized modes impossible to use. Traffic pattern on Indian roads is highly heterogeneous in nature. There are around 90 million vehicles in India, which are growing at the rate of 15-17% annually. With the absence of urban transport increased use of personal vehicles has led to increased traffic accidents. Indian traffic and transport system has a number of draw backs which causes problems delay, unsafe, pollution and inadequate parking. Average number of Road accidents per ten thousand of vehicles is around 51, which is one of the highest in the world. Road infrastructure in India is highly inadequate both quantum and quality. In spite of many measures have been taken by the government to streamline the road safety problem, but, situation is continues till today.

ISSN No: 2348-4845

SUGGESTIONS

The researcher likes to put forward the suggestions that the following measures may go a long way in strengthening the road safety administration.

- Efforts should be made by the Government to improve the mass transport system in urban areas especially in million plus cities.
- It is suggested to prepare a road safety strategy policy, build up a database for use in research, planning and training etc., and separate fund should be allocated to implementation of the safety policy.
- The study suggested to setting up of Unified Metropolitan Transport Authority (UMTA) in all million plus cities to facilitate more co-ordinate planning and implementation of urban transport programs and projects and an integrated management urban transport system.
- Finally, the study feels that the participation of people is the most effective solution to ease the road safety problem in the city.

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4. Report 2008, on Road Accidents in India, Transport Research Wing, Ministry of Road Transport and Highways, Government of India, New Delhi.
5. Basic Road Statistics of India Report 2007-08, Ministry of Road Transport and Highways, Government of India, New Delhi. July, 2010.