ACCIDENT PROFILE AND TRAFFIC MANAGEMENT OF KERALA

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Abstract

Growth in urbanization and the increase in the number of vehicles in many developing countries have led to increased traffic congestion in urban centers and increase in traffic accidents on road networks, which were never designed for the volumes and types of traffic, which they are now required to carry. In addition, unplanned urban growth has led to incompatible land users, with high levels of pedestrian – vehicle conflicts. The drift from rural areas to urban centers often results in large number of new urban residents unused to such high traffic level. As a result, there has often been a severe deterioration in driving conditions and a significant increase in the hazards and competition between different classes of road users. In addition, the inherent dangers have often become worse by poor road maintenance badly designed intersections and inadequate provision for pedestrians. In the recent years increasing amount of traffic on roads have been witnessing, leading to increased risk of road traffic accidents. Evidence from developed especially developing countries indicates that road traffic accidents are on the rise and are the fifth important cause of deaths globally, leading to a significant proportion of injuries, deaths and disabilities in the population. The ever increasing accidents on the road in Kerala with nearly 4000 deaths and around 35,000 injured every year, has become a major cause of concern and there is an urgent need to make a comprehensive programme of Traffic Safety and Enforcement.

Keywords: *Pedestrians, Road traffic accidents, motor vehicle population, road transport, traffic management*

Introduction

Reaching a destination is usually the main goal of transport. An efficient road infrastructure is, therefore, an essential requirement with the new developments in the field of ways, means, motive, power, engineering techniques and organizations. Transport has increased its utility through various ways such as land, water, air and aeroplanes, and commodities are carried from place of abundance to places where they are in demand. The rapid urbanization, industrialization, motorization and changing lifestyle of individuals have given rise to a steep increase in vehicles and roads have become increasingly congested.

Road traffic accidents are a human tragedy, which involves high human suffering. They impose a huge socio-economic cost in terms of untimely deaths. Injuries are loss of potential income. The ramifications of road accidents can be colossal and its impact is felt not only on individuals, their health and welfare, but also on the economy. Road crashes takeaway the right of life of three thousand people every day. This is a Global humanitarian disaster and manmade [Global road safety partnership annual report 2011].

Accidents are drain on the national economy and many lead to disablement, death damage to health and property, social suffering and general degradation of the environment. Road traffic accidents are the only public health problem for which society and decision makers still accept death and disability among people on a large scale (Mohan D 2003). Estimate by the World Health Organization have indicated that globally, road traffic accidents have led to as high as 1.27 million deaths in 2004, which have been found to be equivalent to all the deaths caused by communicable diseases. The most affected are the young population and it has been found that road accidents are one of the top three reasons for deaths among the population from the age group of 5 to 44 years globally.

The WHO (2009) estimate that road traffic accidents will be the fifth leading cause of deaths world wide by 2030, leading to an estimated 2.4 million families per year, if proper steps are not taken to prevent deaths and injuries on the road. Over 90 percentages of the world's fatalities on the roads occur in low-income and middle income countries, which have 48 percentages of the world's registered vehicles, (World Health Organization 2004).

A steep increase in vehicle and human population traversing the adverse road situations has made road traffic injuries a serious conditions. The phenomenal increase in mobility, morbidity, disability and socio-economic impact from injuries in particular, during the past decade has been a matter of increasing concern among professionals and policy makers (Guru Raj G. et.al.2008).

The relevance of road transport passenger services in Kerala is very high due to its unique topographical features. Its hilly nature stood in the way of development of other mode of transport, especially railways. The passenger population in Kerala is estimated to be 75.49 lakhs per day.

The transport system recorded a substantial growth over the years both in the spread of network and in the output of the system. The pressure on road system in Kerala is extremely heavy. The total road length in Kerala increased from 125835 km in 1999-2000 to 137678 km in 2000-01, registering an increase of 9.41 percent over the previous year. The availability of road length in Kerala per sq. km area in 3.54 km, is far above the national average, which is 0.91 km. It is a reflection of the unique settlement pattern in which people live everywhere in individual homesteads making the state a vast 'urban' area. So the travelling need of people in Kerala is almost the same in villages and cities. For every one lakh in the population of Kerala, there are 432 km of road as against the national average of 299 kms. While road length in Kerala increased by 66 percent between 2005-06 and 2012-2013 (from1,60,944 km to 2,43,373km in 2012-13), the motor vehicle population increased by 157.8 percent between 2005 and 2013 (from 31,22,082 lakhs in 2005 to 80,48,673 lakhs in 2013). According to the latest estimates, every day about 3171 vehicles are newly added to the vehicle population to the state. Between 2005-06 and 2012-13, while road length increased by 82,929 kms only the motor vehicle population increased by a whopping 49, 26,591. In 2008-09 growth rate of motor vehicle population was only 9.8 percent. However, by 2012-13 it increased to 17 percentages.

In order to cater to the needs of the demand of moving population, quite a large number of vehicles are plying on the roads of Kerala. The motor vehicle population in Kerala is growing at the rate of 10 percent per annum. The motor vehicles having valid registration as on March 2002 was 2315372 as against 2111885 during the previous year. The 100 percent rural connectivity is another feature of Kerala. All villages (1268) are connected with motor able roads. This feature of Kerala increases the scope of passenger services. The vehicle density in the state is very high when compared to many other states in India.

Traffic accidents are a major cause of death and injuries worldwide, but while they are declining in many parts of the developed world, fatalities are still on the rise in many developing countries including India. In Kerala, more than half of the road victims are in the age group of 20-55, the key wage-earning and child raising age group. The loss of the main breadwinner and head of household due to death or disability can be catastrophic leading to lower living standards and poverty. On an average, nine persons die in road accidents in Kerala every day. As many as 136 persons are injured daily in accidents. According to the study conducted in the State over a period of three months, 3000 odd persons die in road accidents every year. Around 6 lakhs people have sustained injuries in road accidents over the last 10 years. One out every 53 persons in Kerala has sustained injuries in road accidents. On the monetary front, Kerala loses Rs.600 crores every year on account of damage to vehicle and property.

Table No. 1 Trends of Motor Vehicle Accidents in Kerala (2008-09 to 2014-15)

Year	No of Motor Vehicle Accidents
2008-09	36694
2009-10	35633
2010-11	34946
2011-12	35282
2012-13	37204
2013-2014	35215
2014-2015	36282

Source: Economic Review 2013, State Planning Board

Between 2008-09 and 2012-13, motor vehicle accidents in Kerala increased from 36,694 to 37,204. This means that 102 accidents are taking place on the roads in Kerala every day. Nowhere else in the world do so many accidents occur as in Kerala with an area of 38,863 square kilometers? Kerala has 6,567 vehicles for every 100 square kilometers, whereas it is just 1,673 vehicles in India. The accident rate in India is 7.2 for every vehicle but in Kerala, it is 15 for every 1000.

Traffic Management in Kerala

The ever increasing accidents on the road in Kerala with nearly 4000 deaths and around 35,000 injured every year, has become a major cause of concern and there is an urgent need to make a comprehensive programme of Traffic Safety and Enforcement. Hence the Government of Kerala and Kerala Police has decided to launch Subhayatra 2015 project, which aims at tackling the three Es of traffic, namely Enforcement, Engineering and Education. The project provides for tackling traffic through a multi faceted, coordinated effort of all sections of society to make the roads in Kerala, a safer place to drive. The programme has the following sub components.

1. Strict Digital Enforcement of Traffic Rules

Over speeding, drunken driving, rash and negligence driving are one of the major reasons for accidents in Kerala and to tackle the same stricter traffic enforcement through digital means will be started in 2015 under this programme.

1. More speed check cameras will be established on all the major roads under the PPP mode
2. Hand held speed radars will be supplied to all Police Stations for speed checking
3. Alco meters will be supplied in all the Police Stations to strictly crack down on drunken driving
4. Payment of fines through banks will be started throughout the state, which will ensure that the public need not come to the police station to pay fines
5. Payment of fines through credit/debit cards will also be started in association with SBI, so that payment of fines can be made on the spot through credit/ debit cards
6. Strict action against drunken driving will be initiated and a policy of zero tolerance against drunken driving will be enforced
7. Stricter enforcement of the helmet rule, both for the driver and the pillion driver will be implemented as per the MV Act.

2. Virtual Mechanisms for Effective Traffic Management

1. A Portal Exclusively for Traffic
2. Traffic E mail/ Whatsapp page/ Facebook
3. Traffic Helpline Number
4. Tie up with Radio for passing of traffic congestion info at every hour: Through FM Radios, traffic messages can be given to a great extent. During intervals, they may give information on road congestion, other traffic issues etc. Since most of the people do have cars with FM Radios inside, it will definitely help a lot. For the purpose, detailed discussions should be there with the Radio teams, to implement and execute the system properly.

3. Educational Mechanisms for Effective Traffic Management

1. Traffic Bulletin
2. Traffic Parks
3. Mobile Digital Traffic Parks (Mobile Traffic Electronic Park
4. Traffic Clubs in Schools
5. Traffic Training Institute

4. Executional Mechanisms for Effective Traffic Management:

1. Tie up with SBI for payment of traffic fines through debit cards
2. E-Challan System: The system of Digital Challan Generation for traffic checking has been initiated and commissioned
3. Badges of Honour for Traffic Safety: For rewarding and motivating excellence in traffic safety initiatives, Kerala Police will institute Badges of Honour for Traffic Safety Endeavours
4. Formation of SOFT (Save Our Fellow Traveller): It is the present scenario that people are afraid of helping the traffic accident victims. They fear becoming a witness in front of the police. This tendency should be corrected to save the lives of the people who are on the road. NGOs can help a lot in this regard
5. Rehabilitation of Traffic Accident Victim Families

5. General Campaign Activity Mechanisms for Effective Traffic Management

1. Effective Brand Ambassadors for Traffic Campaign
2. Traffic Instruction Stickers on Vehicles
3. Campaign on Drunken Driving
4. Documentary on Road Safety
5. Booklets on Traffic Safety
6. Posters on Road Safety
7. Road Safety Month/ No Horns Day
8. World's Largest Painting by Children
9. Exhibition on Road Safety
10. Traffic Awareness Rally

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