

Analysis Of Speed Limits In Reducing Road Accidents In Kerala

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Abstract:

This paper assess the prevalence of fatal road traffic accidents (FRTAs) reported by the newspapers, electronic media etc. and an analysis of the factors in relation to vehicles and sites of impacts, accident pattern etc. in Kerala, the southernmost state in Indian territory. Total of 110 samples were approached through non probability convenience sampling method. Data were collected by the researcher directly by contacting the concerned authorities. Percentage Analysis and Factor Analysis were used to analyze the data with the help of Microsoft Excel and SPSS. From the study the respondents are majority from the age group of 46-55. Gender based respondents-male and female are having equal distribution and most of these respondents are Bachelor. Adequate traffic awareness is available for most of the people as they know the measures used to reduce travel speed in public roads. The speed advised in urban built up roads is 30 mph. Penalty applied for over speeding, not wearing helmets and seat belts, drunken drive etc. to be effectively implemented.

Keywords: Road Accident, Speed limits

INTRODUCTION

Kerala is situated between the Arabian Sea to the west and the Western Ghats to the east. Kerala runs 580 km in length and varies between 35–120 Km in width. It has 9 National Highways, number of State Highways and many district roads. The narrow strip type geography and the linear distributions of towns demands more usage of Highways as a trunk road from one end of the state to the other. National Highways in Kerala is 1525Km - only 2.3% of the total National Highway length in India. The Traffic density is 1.5 Km, which is higher than the national average. The number of motor vehicles registered in the State was 70 lakhs in 2015, which is more than the number of households in the State, which is about 65 lakhs. Kerala is ranked as first among Indian states in per capita consumer expenditure in rural and second in urban sectors (Sarada2014). With only 2.8% of the country's population, it accounts for 10% of the total consumption.

The above geographical, demographical and consumeristic characteristics of Kerala make the road transportation as the most important mode of transport for the movement for passengers and goods. Ironically deaths from Road Traffic accidents (RTA) have been now characterized in this state as a hidden endemic which affects all sectors of society. It is found that, of all total reported accidents, 13% are fatal occurring every year. This is around 10 times higher, compared to that of fatal accidents in developed countries like Australia and Japan. This paper assess prevalence of these fatal road traffic accidents (FRTAs) reporting in newspapers, electronic media etc. and an analysis of the factors in relation to victims, vehicles and sites of impacts, accident pattern etc. Besides, this paper makes an attempt to prescribe some effective countermeasures pertaining to hosts (road users), the agents (vehicles) and the road environmental conditions. (C.Vigneshkumar, April, 2015)

The costs and consequences of road accidents of these magnitude are significant that more than one-half of all road traffic deaths globally occur among people ages 18 to 44-their most productive earning years. Moreover, the disability burden for this age group accounts for 60 percent of all daily income lost because of these road accidents. Three-quarters of all poor families who lost a member to road traffic death reported a decrease in their standard of living. The World Bank estimates that road traffic injuries cost 1 percent to 2 percent of the gross national product (GNP) of developing countries. It is twice the total amount of development aid received worldwide by developing countries. The Global status report on road safety 2013 indicates that worldwide the total number of road traffic deaths remain unacceptably high at 1.24 million per year. Road traffic injuries are the leading cause of death among young people, aged 15–29 years. Children, pedestrians, cyclists and older people are among the most vulnerable of road users constituting half of those dying on the world's roads. Majority of the world's fatalities on the roads occur in low-income and middle-income countries, even though these countries have approximately half of the world's vehicles.

OBJECTIVES OF THE RESEARCH

- To identify the speed limit in Kerala
- To know the speed limits guidelines of the respondents
- To analyze the attitude of the respondents on speed limits

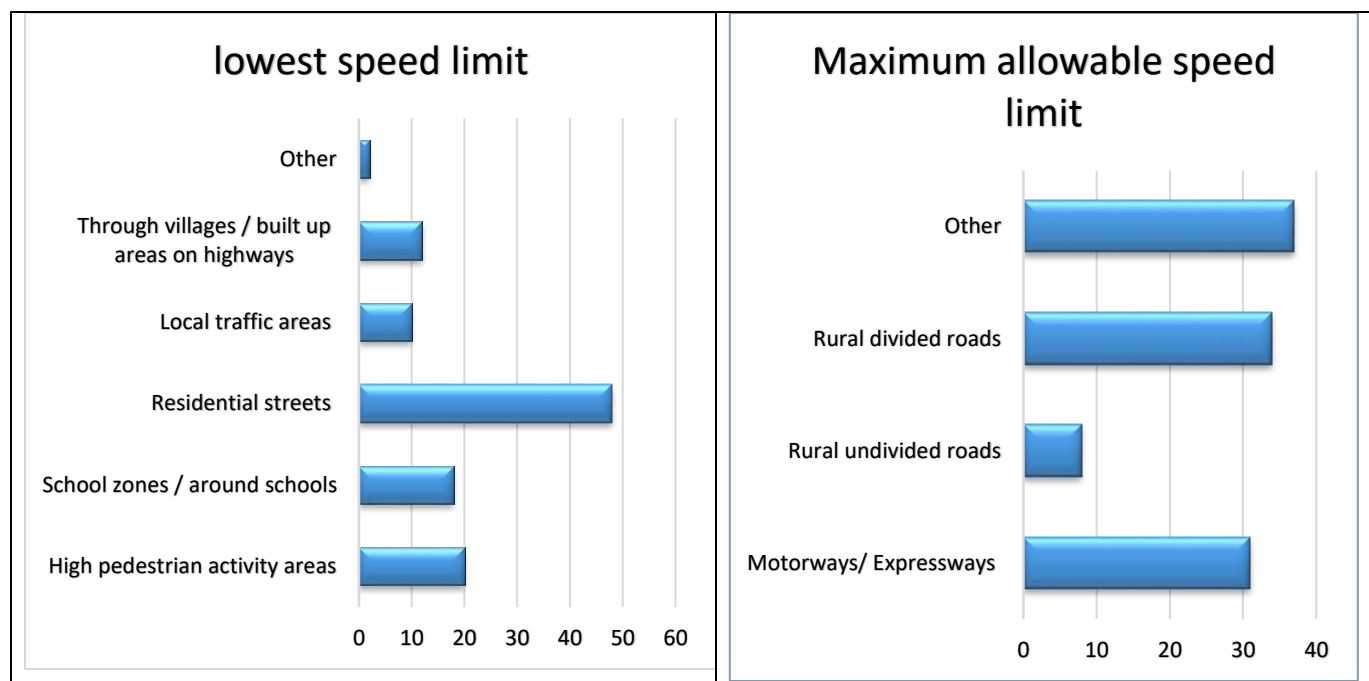
RESEARCH METHODOLOGY

The dominant challenge encountered by the researcher while working in the extent of service quality is the enormous literature. The research is descriptive in nature and the researcher used primary data. The primary data were collected through questionnaire from the respondents. Total of 110 samples were approached through non probability convenience sampling method. Data were collected by the researcher directly by contacting them. Percentage Analysis, Factor Analysis were used to analyze the data with the help of Microsoft Excel and SPSS.

ANALYSIS OF THE STUDY

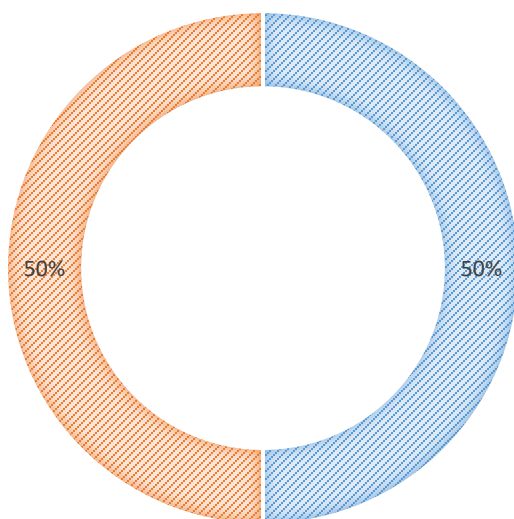
S.No	Variables	Frequency	Percentage
Age	Below 25	31	28.2

	between 46- 55	38	34.5
	between 26 – 35	21	19.1
	above 56	20	18.2
Gender	Male	55	50.0
	Female	55	50.0
Marital status	Married	75	68.2
	Bachelor	35	31.8

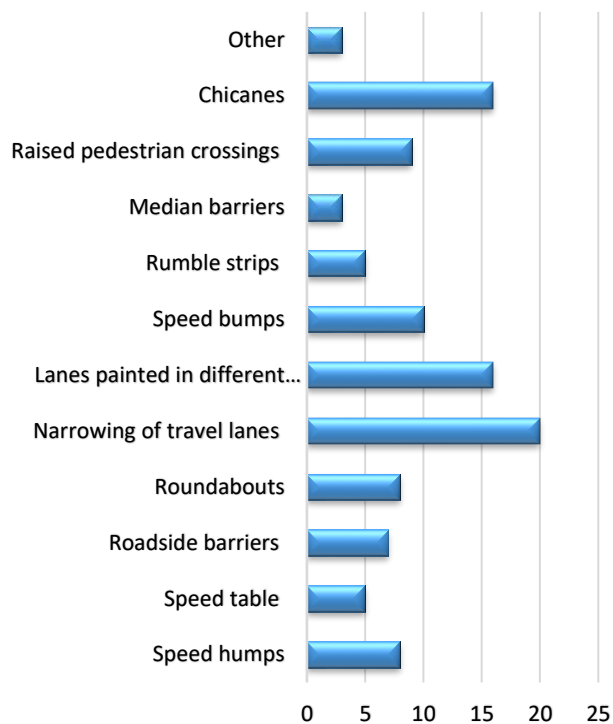


GUIDELINES / POLICY

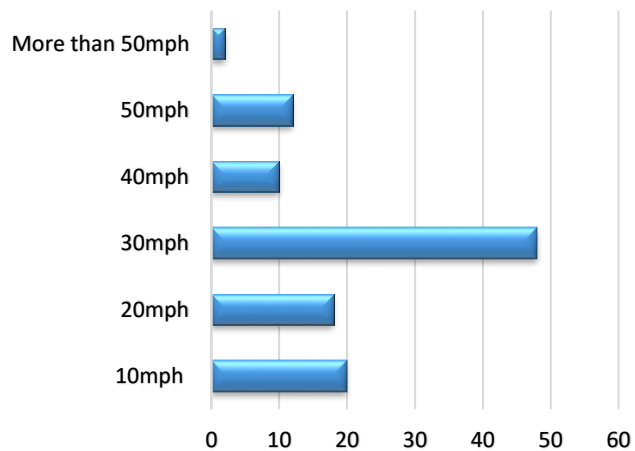
■ Yes ■ No



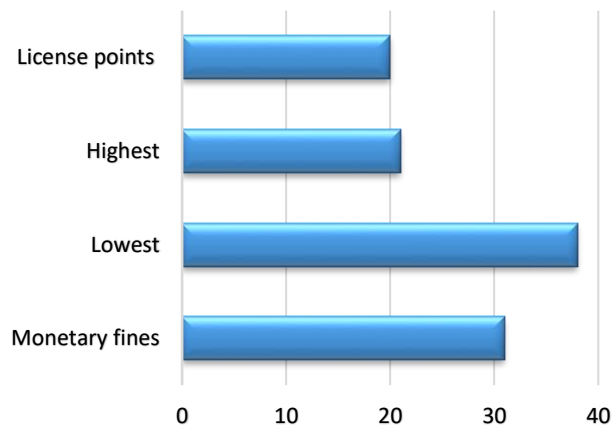
Engineering measures are used to reduce travel speeds

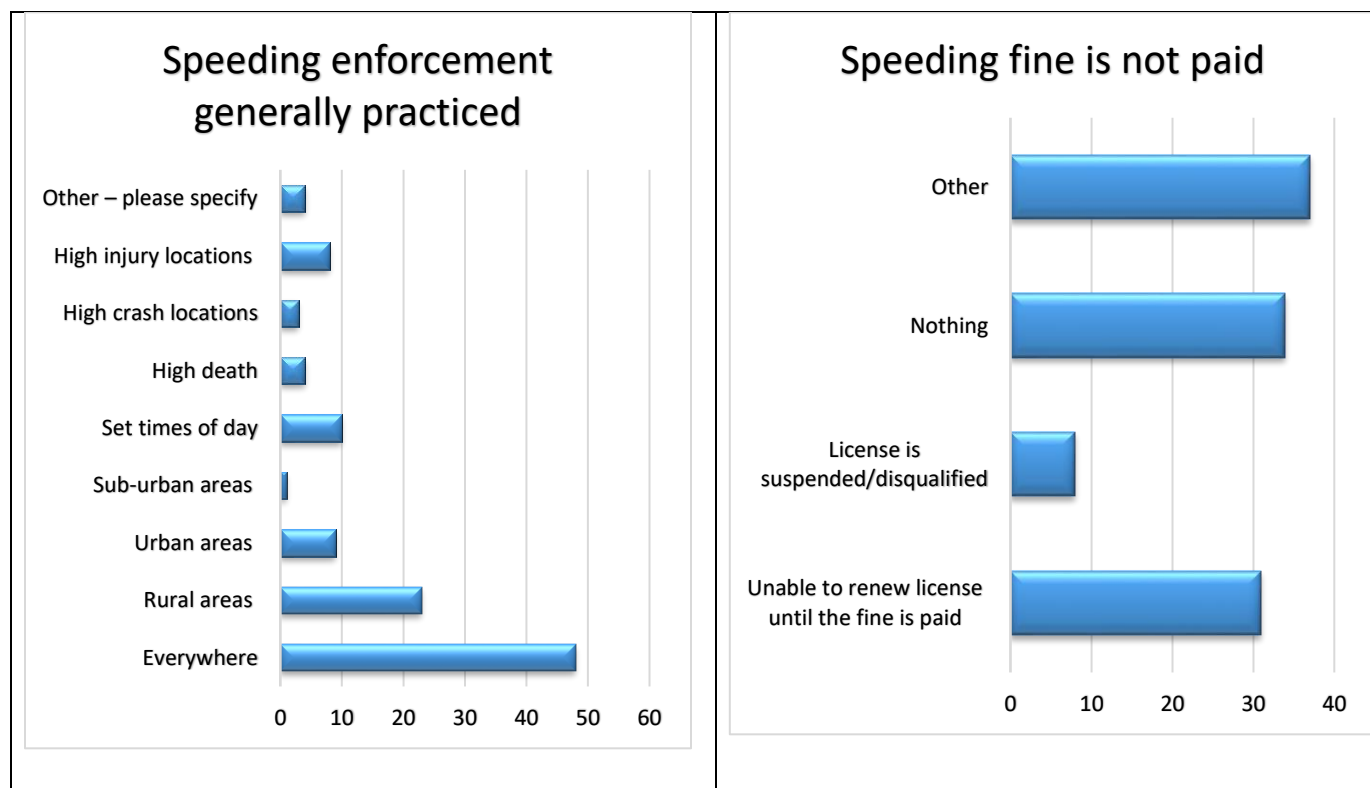


Urban built up roads is 30mph



Penalties are applied for speeding





ATTITUDE OF RESPONDENTS SPEEDING AND SPEED LIMITS

Breaking Speed limits	Normal Speed	Drivers identify the speed limit	Safety maintenance	Dependent on Road	Drivers Ignorance	Speed Enforcement
<ul style="list-style-type: none"> .860 .782 .775 .747 .705 .673 .670 .451 	<ul style="list-style-type: none"> .802 .775 	<ul style="list-style-type: none"> .757 .553 .502 	<ul style="list-style-type: none"> .740 .722 	<ul style="list-style-type: none"> .851 .645 	<ul style="list-style-type: none"> .709 	<ul style="list-style-type: none"> .156 .548 .029

FINDING OF THE STUDY

From the study the respondents are majority from the age group of 46-55, gender based respondents are male and female and they are in equal distribution. Most of the respondents are bachelors, lowest speed limits needed is in residential streets. Most of the people are aware of traffic rules and general guideline of road usage. The engineering measures used to reduce travel speed in implemented almost all areas of roads studied including displaying of speed limits as for urban built up roads are 30 mph. Penalty applied for speeding is moderate and high for repeaters, speeding enforcement are followed in everywhere.

Finally Attitude of the respondents are Breaking speed limit have 8 Variables. Normal Speed, Safety maintenance and Dependent on Road factors have 2 variables, Diver identify the Speed limit and Speed Enforcement both factors have 3 Variables, Divers ignorance have only one variable.

CONCLUSION

From the study the respondents are equally contributed to the cause of accidents in Kerala, the advisable lowest speed limit is 30mph in cities / streets. The respondents are aware of road rules and general traffic guidelines and the speed limits. Positive response received from respondents on speed limits, as it reduces fatal accidents and save valuable lives and support economy as a whole

SUGGESTIONS

- Follow advisory speed limits.
- Be vigilant to identify and choose low-risk modes of transportation.
- Realize road safety is a basic right and be aware of what is our duty to avoid crashes in road.

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