



# Prevalence of Road Traffic Accident in Bangladesh

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## ABSTRACT

Road Traffic Accident and Injuries (RTAI) is a global trauma and like many other countries in the world Bangladesh also suffers a great deal due to road accidents every year. According to the police reported accident records, the number of fatalities has been increasing from 187 in 1972 to 3764 in 2008, nearly 10 percent per year in the total 37 years life of Bangladesh but in the last decade this numbers are not equally increased (3314 in 1999 to 3764 in 2008, 2% per year). With the growth of motorization, urbanization and hence number of road users, the number of accidents and fatalities on road are increasing with the passage of time. Proper and rational rates of accidents and corresponding trends are required to understand or judge the situation accordingly. In this study, an attempt has been made to evaluate the rate of road traffic accidents and fatalities trends in terms of total numbers, vehicle population, population, road length and vehicle kilometer using police reported accident data. It is really alarming situation in Bangladesh for increasing the number of fatalities with the equal number of accidents.

**Keywords:** *Prevalence, Road, Traffic Accident, Injuries, Bangladesh*

## INTRODUCTION

Road Traffic Accident and Injuries (RTAI) are a “Global tragedy”. Now a day it is a growing fierce problems and leading causes death, injury, disability and illness. Worldwide around 1.3 million people death and 50 million are injured or disable per year globally (WHO, report). Safety situation is very grievous in developing countries like Bangladesh, influence total economy and impact the social status as well.

Road Traffic Incident (RTI) death rates are more than twice as high in low and middle-income countries; differentiate to high- income countries with almost 90% of all road traffic accident death occurring in low income and middle income countries. Low and middle-income countries road traffic accidents result in losses up to 5% of the GDP compared with 3% globally. Road transportation is the main mode of transport in Bangladesh, over 70% of passenger’s travel and maximum goods carrying through road network system.

## Trend of Accidents and Fatalities

According to the police reported accident records, the number of fatalities has been increasing from 187 in 1972 to 3764 in 2008, nearly 10 percent per year in the total 37 years life of Bangladesh but in the last decade this numbers are not equally increased (3314 in 1999 to 3764 in 2008, 2% per year). However, from this figure it is evaluated that there are no significant increase of accidents, fatalities, injuries and casualties have taken place in the last decade in Bangladesh in spite of increase of huge number of population, personal trips, vehicles (formal, informal; motorized, non-motorized), road network as well as increase of level of understanding on the necessity of accident reporting and recording particularly for the continuous monitoring of media personnel and introduction of formal accident reporting system. This is attributable partly to an improvement of road condition (in the form of curve straightening, carriageway widening, black spot treatment etc.), construction of new national and regional highway with the help of foreign consultants incorporating pre-safety auditing approach, increase in the number of high standard vehicles on the road (like Volvo, Hino etc.), improved road users education and awareness level and partly to the enhancement of a coordinated official policy to control the problem and police enforcement.

## Severity of road Traffic Accidents

A traffic collision also called a motor vehicles collision (MV) among others terms, occurs when a vehicle collides with another vehicle, pedestrians, animal, road debris or other stationary obstruction such as a tree, pole or building. Traffic collision often results in injury, death and property damaged. A number of factors contribute to the risk of collision including vehicle design, speed of operation, road design, road environment and driver skills, alcohol or drug taking behavior, notably speeding and street racing worldwide motor vehicle collision lead to death and disability as

well as financial cost to both society and the individual involved. In 2013, 54 million peoples sustained injured from traffic collision. The result in 1.4 million death in 2013, up from 1.1 million death in 1990 about 68000 of those occurred in children less than 5 years old.

Almost all high-income countries have decreasing death rates, while the majority of low-income countries, middle-income countries have the height rate with 20 deaths per 100,000 inhabitants 80% of all road fatalities by only 52% of all vehicles, while the death rate in Africa is the height (24.1 per 100,000 inhabitants). The lowest rate is found in Europe (10.3 per 100,000 inhabitants)

There is no human/man or no traffic movement, there is no chance to road crash or fatalities, this is true but in Bangladesh the population density is high and per square kilometer 1265 person; Total area-147570 square km, population 170 million, Land area-90%, water area-7%, Growth rate-1.01 (statistical bureau of Bangladesh). 4 million motorized and could be over 3 million non-motorized vehicles of the motorized vehicles 62% 2 and 3-wheeled vehicles and the rest are vehicles of different categories such as car, jeep, bus, minibus, truck, pick-up, covered van, long-vehicle, three-wheeler, rickshaw, nosimon, korimon, easy-bike, motor-cycle, by-cycles etc.

## CONCEPTUAL FRAMEWORK

In this explorative description of road traffic accidents and road safety management system with a focus on road safety measures. The road safety strategies generally called strategic highway safety plan in USA, provides essential guidance for actions to improve road safety, but often lack of a conceptual framework that is comprehensive system, theory based and underpinned by evidence from research and practice. This paper aims to incorporate all components, policy, tools by which they are changed and general interaction between them, this paper introduces a conceptual framework for road safety and mobility with cycling safety to exemplify its application.

One of the major problems of road safety research is the most of it does not have a strong theoretical basis, the lack of such basis makes it difficult to design suitable studies and interpret finding (Elvic,2004). Current road safety models are focused mainly in risk. Traffic and Transport literature offers models for travel behavior that help to explain exposure risk. Crash and injury risk are modeled by three safety pillars, human factors (road users), infrastructures and the vehicles they use creating a link infrastructure in the framework between risk and exposure is important of the non-linear relationship between them, that is risk tends to reduce as exposure increase. Furthermore, perceived risk (a type of travel resistance) plays a role of mode choice.

## RESEARCH OBJECTIVE

The objectives of the study are as follows:

1. To assess the prevalence of road traffic accidents.
2. To identify the causes of road traffic accidents.
3. To find out the types of injuries caused by road accidents.

## RESEARCH METHODOLOGY

This study employed both quantitative and qualitative methods as a combined research approach (also called integrated approach). In the study collected data and information from both primary and secondary sources were collected in two phases. First, the study analyzed available literatures and documents to understand the theory and framework and study instruments on Road Safety Policy and Management System in Bangladesh. Secondly, a questionnaire survey had been employed to assess the effect of Road Safety Policy and Management System in Bangladesh. Filled questionnaires had been back-checked daily for their completeness by the researcher. Data had been collected via face-to-face interview with the respondents of the study area. The study approach had been participatory in nature that ensured meaningful participation of a range of stakeholders in the entire process of the study. It had employed appropriate research techniques and valid tools to ensure the study realistic, viable and reliable leading to ensuring validity of the findings. It has observed seriously cultural, social, economic and political issues to capture the dynamics of study themes.

**Research Design of the Study:** The choice of an appropriate research design is essential for a scientific study since it gives a framework of what the researcher do from setting the research question to the operational implications of the data analysis. A research design is 'the arrangements of conditions form collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Selltiz 1965 cited in Aminuzzaman 1991, p.53). The study is focused to evaluate the Road Safety Policy and Management System in Bangladesh. Hence, descriptive and analytical research designs have been chosen. Because descriptive research design helps to describe the current practices and events while analytical research design enables to establish relationship between variables (Aminuzzaman 1991). Here the research design of the present study is survey type.

**Sampling Method:** Basically, randomly purposive sampling method was used in the study so as to get the best information to achieve the objectives of the study. This method gave flexibility to the researcher to pick up only

people who are likely to have the required information and be willing to share it. Moreover, the sampling method helped to ensure representation of different variation of service providers as well as service seekers. In other words, heterogeneity in the composition of sample of service seekers and providers (age, sex, senior-junior officials, education, and profession) was attempted to maintain as possible. Therefore in this study a combination of quantitative and qualitative methods were used. The question might arise why combination of these methods were used. Because as Creswell (1994:177) suggests that, it is advantageous to a researcher to combine methods to better understand a concept being tested or explored. Each approach has its strengths and its weaknesses, and reliance on anyone method is not appropriate. Therefore, in this research quantitative and qualitative research was used to better understanding as well as in depth to know the domain of the study.

**Sampling Technique:** Purposive sampling is a sampling technique in which the study relies on judgment when choosing members of population to participate in the study. Purposive sampling is a non-probability sampling method and it occurs when “elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money”. In this research purposive sampling method was used.

**Sample Size:** The study participants were then purposively selected from the chosen settings to form the study sample. Approximately 550 participants will be targeted with a composition of 150 Doctors, 150 Nurses, 150 road accident respondents and 150 Policy Makers. This was meant to ensure proportionate representation of the different population categories in the selected study sample.

**Sources of Data:** Generally, there are two different sources of collecting data, viz., primary sources and secondary sources. The present study is based on both primary and secondary sources of data. Primary data were collected from the respondents of the study area directly using different data collection techniques. On the other hand, the study has used different relevant publications, dissertations, books, journal articles, reports, and websites etc. as sources of secondary data. The data were collected from secondary sources must be useful to cross validate primary data and also to analyze the relationship among variables. Primary data were collected from the particular areas in urban and rural areas in Bangladesh.

**Data Collection Method:** The study conducted based on both primary and secondary data. Primary data were collected through interviews and Questionnaire survey. Structured questionnaire containing both open and closed ended to be used. A survey through a standardized questionnaire was conducted to collect both quantitative and qualitative information form. One questionnaire was used for collecting primary data. The semi-structured interviews have to be used for conducting with the policy makers, administrators, education experts and founders. Secondary data and information were collected besides the primary sources side by side secondary data were gathered from journal articles, published books, government documents, , policies, reports of various committees related to higher education etc. At the same time the present study has collected qualitative data through face to face interview.

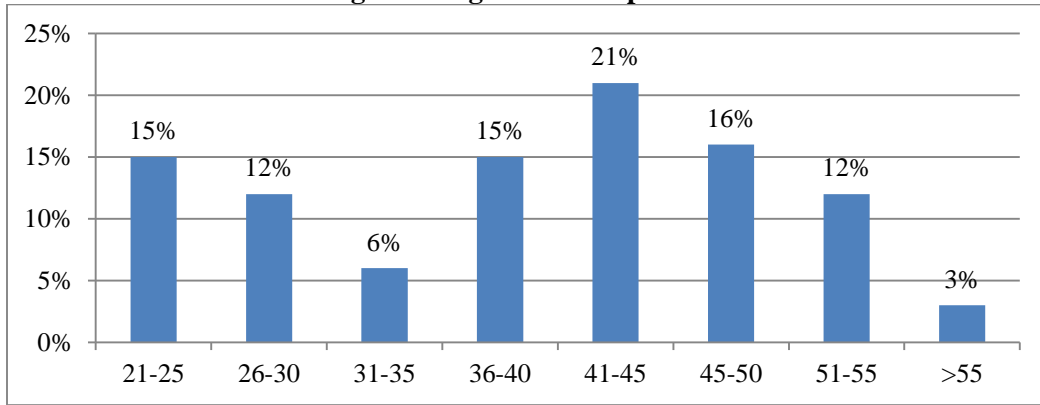
**Data Processing and Analysis:** In qualitative study the researcher has the freedom to marshal gathered data to meet the desired objectives of the study (Creswell 2009). Partial data of questionnaire survey was processed using simple statistics. The rest of the data were explained carefully to meet the aim of the study and research question and also attempted to establish relation among the variables. Some important and strong statements were referred in the analysis part to add value to the findings. Endeavor was make firstly to unleash the potential Road Safety Policy and Management System in Bangladesh, secondly to detect the challenges, prospects and finally to put some light on to overcome the barriers. Computer Program Statistical Package for the Social Sciences (SPSS) was used for data analysis. Data were analyzed according to the objectives of the study. Tables, graphs and statistical analysis were done by Computer Program Statistical Package for the Social Sciences.

## RESULT AND DISCUSSION

**Table 1: Age of the Respondent**

| Age in Years | Frequency | Percent | Cumulative Percent |
|--------------|-----------|---------|--------------------|
| 21-25        | 60        | 15      | 15                 |
| 26-30        | 48        | 12      | 27                 |
| 31-35        | 24        | 6       | 33                 |
| 36-40        | 60        | 15      | 48                 |
| 41-45        | 84        | 21      | 69                 |
| 45-50        | 64        | 16      | 85                 |
| 51-55        | 48        | 12      | 97                 |
| >55          | 12        | 3       | 100                |
| Total        | 400       | 100     |                    |

**Figure 1: Age of the Respondent**

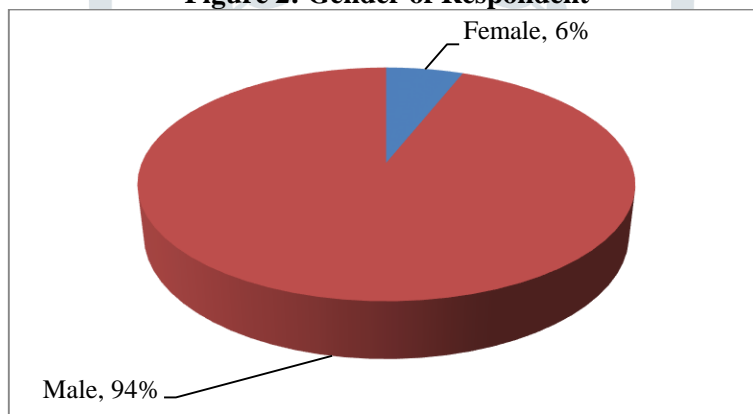


Age of the Respondent has shown in the above table and graph. From the table it was found that 21% respondents were age group 41-45 years which was maximum and 3% respondents were age group more than 55 years which was minimum. On the other hand 15% respondents were age group 21-25 years, 12% respondents were age group 26-30 years, 6% respondents were age group 31-35 years, 15% respondents were age group 36-40 years, 16% respondents were age group 45-50 years and 12% respondents were age group 51-55 years.

**Table 2: Gender of Respondent**

| Gender | Frequency | Percent | Cumulative Percent |
|--------|-----------|---------|--------------------|
| Female | 24        | 6.0     | 6.0                |
| Male   | 376       | 94.0    | 100.0              |
| Total  | 400       | 100.0   |                    |

**Figure 2: Gender of Respondent**

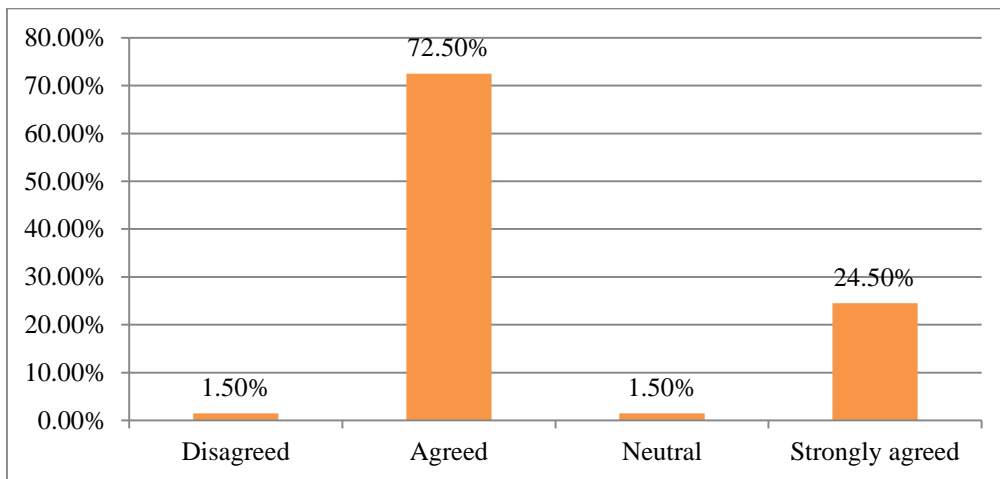


Gender of Respondent has shown in the above table and graph. From the table it was found that 94% respondents were male whereas 6% respondents were female.

**Table 3: Over speeding is the cause of road accident**

| Respondent's opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Disagreed            | 6         | 1.50    | 1.50               |
| Agreed               | 290       | 72.50   | 74.00              |
| Neutral              | 6         | 1.50    | 75.50              |
| Strongly agreed      | 98        | 24.50   | 100.00             |
| Total                | 400       | 100.0   |                    |

**Figure 3: Over speeding is the cause of road accident**

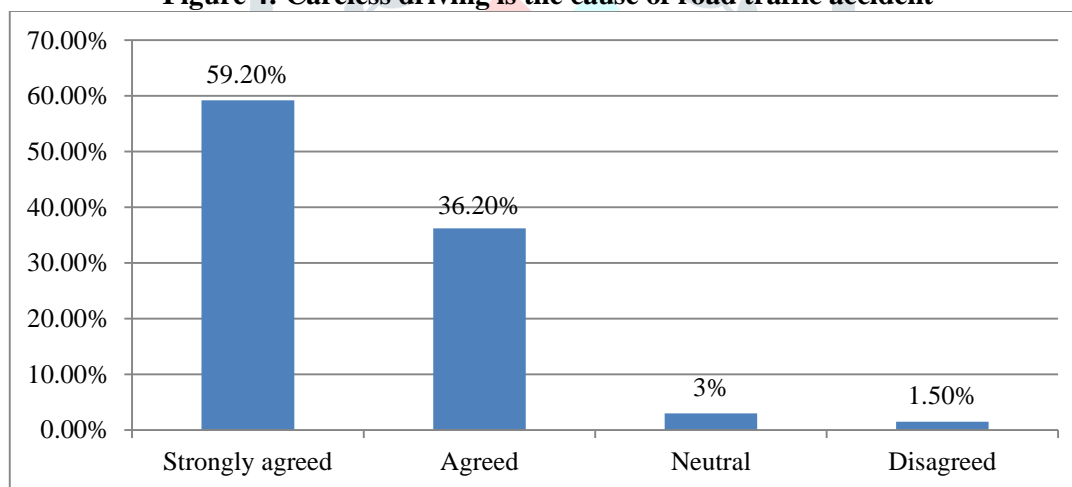


From the result it was found that 97% respondents replied that over speeding is the cause of road traffic accident which was maximum and 1.5% respondents were disagreed which was minimum.

**Table 4: Careless driving is the cause of road traffic accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Strongly agreed      | 237       | 59.2    | 59.2               |
| Agreed               | 145       | 36.2    | 95.4               |
| Neutral              | 12        | 3.0     | 98.4               |
| Disagreed            | 6         | 1.5     | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 4: Careless driving is the cause of road traffic accident**

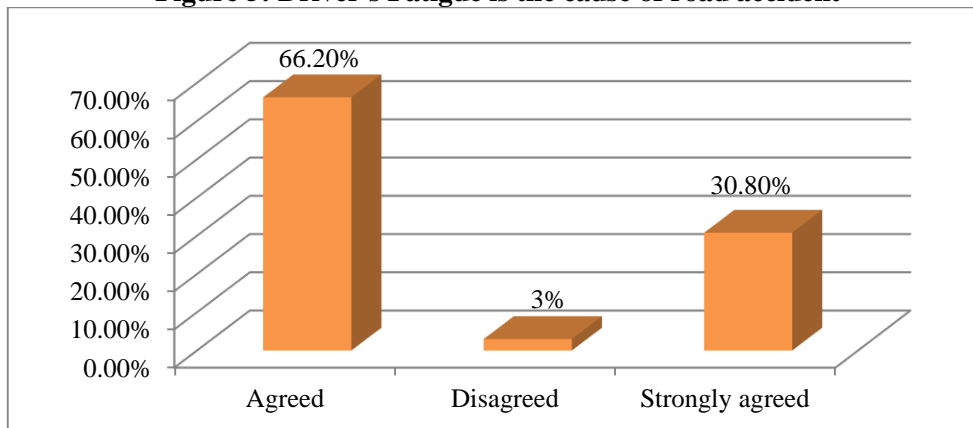


From the result it was found that 95% respondents replied that careless driving is the cause of road traffic accident which was maximum and 1.5% respondents were disagreed which was minimum.

**Table 5: Driver's Fatigue is the cause of road accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Agreed               | 265       | 66.2    | 66.2               |
| Disagreed            | 12        | 3.0     | 69.2               |
| Strongly agreed      | 123       | 30.8    | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 5: Driver's Fatigue is the cause of road accident**

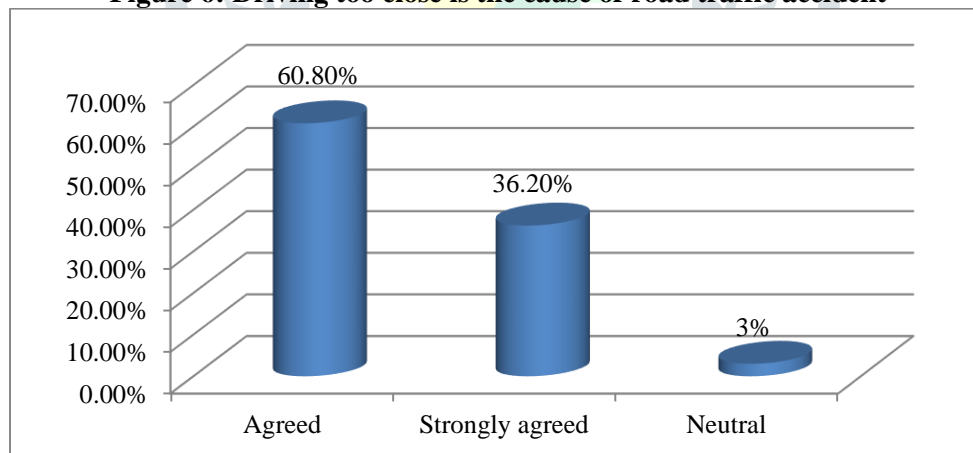


From the result it was found that 97% respondents replied that driver's fatigue is the cause of road traffic accident which was maximum and 3% respondents were disagreed which was minimum.

**Table 6: Driving too close is the cause of road traffic accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Agreed               | 243       | 60.8    | 60.8               |
| Strongly agreed      | 145       | 36.2    | 97.0               |
| Neutral              | 12        | 3.0     | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 6: Driving too close is the cause of road traffic accident**

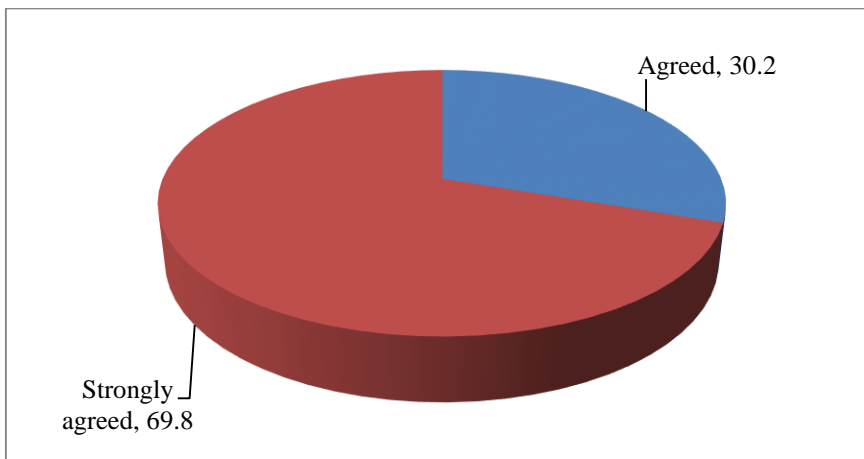


From the result it was found that 97% respondents replied that driving too close is the cause of road traffic accident which was maximum and 3% respondents were neutral which was minimum.

**Table 7: Careless turning**

| Respondent's opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Agreed               | 121       | 30.2    | 30.2               |
| Strongly agreed      | 279       | 69.8    | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 7: Careless turning**

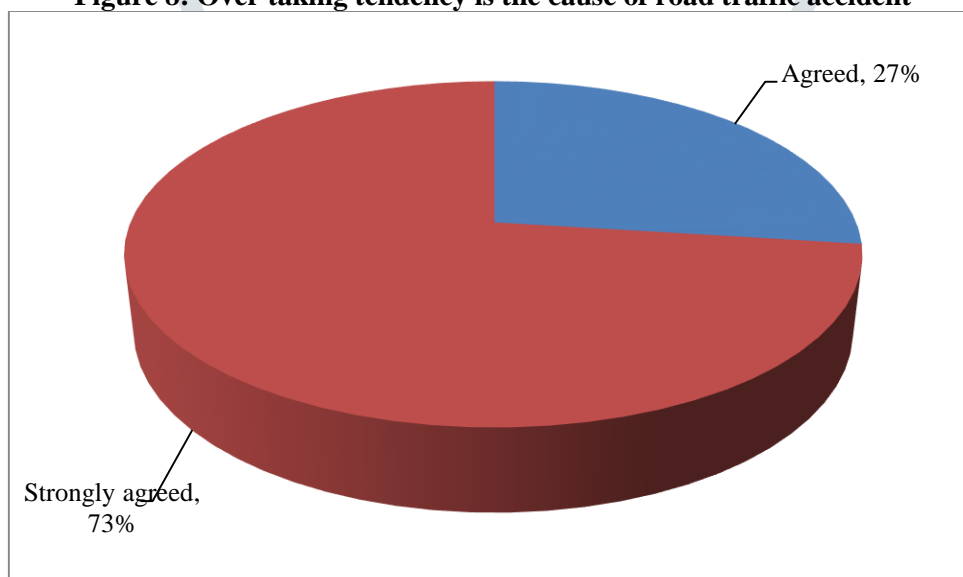


Whether Careless turning is the cause of road traffic accident has shown in the above table and graph. From the result it was found that almost every respondent replied that bad driving signal is the cause of road traffic accident.

**Table 8: Over taking tendency is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Agreed              | 108       | 27.0    | 27.0               |
| Strongly agreed     | 292       | 73.0    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 8: Over taking tendency is the cause of road traffic accident**

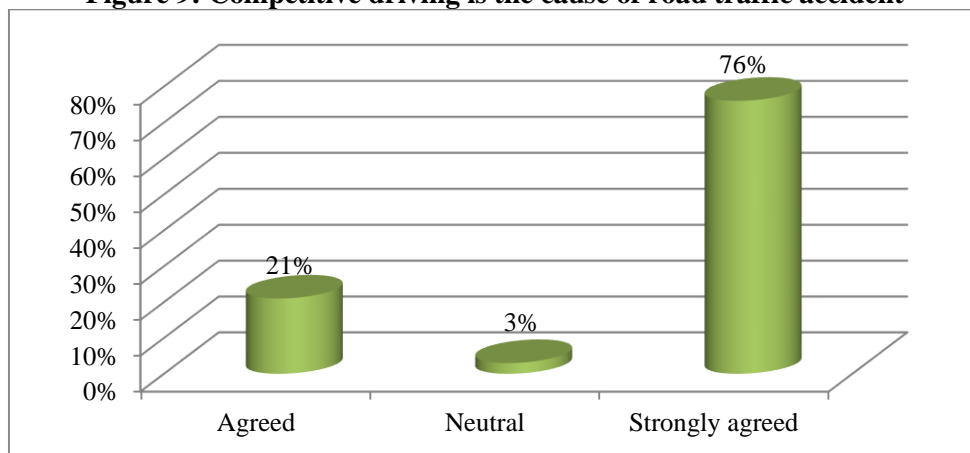


Whether over taking tendency is the cause of road traffic accident has shown in the above table and graph. From the result it was found that almost every respondent replied that bad overtaking tendency is the cause of road traffic accident.

**Table 9: Competitive driving is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Agreed              | 84        | 21.0    | 21.0               |
| Neutral             | 12        | 3.0     | 24.0               |
| Strongly agreed     | 304       | 76.0    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 9: Competitive driving is the cause of road traffic accident**

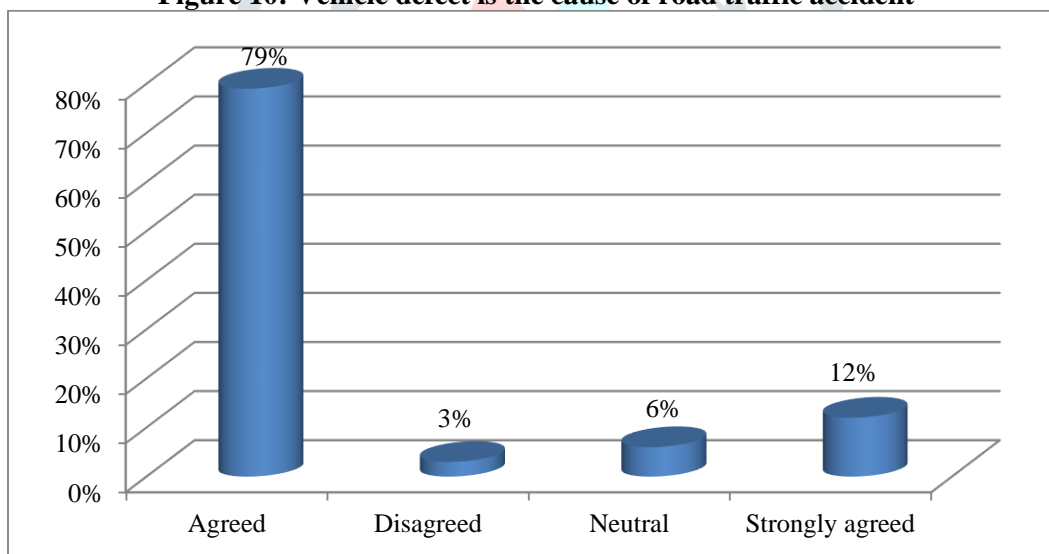


From the result it was found that 97% respondents replied that competitive driving is the cause of road traffic accident which was maximum and 3% respondents were disagreed which was minimum.

**Table 10: Vehicle defect is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Agreed              | 316       | 79.0    | 79.0               |
| Disagreed           | 12        | 3.0     | 82.0               |
| Neutral             | 24        | 6.0     | 88.0               |
| Strongly agreed     | 48        | 12.0    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 10: Vehicle defect is the cause of road traffic accident**



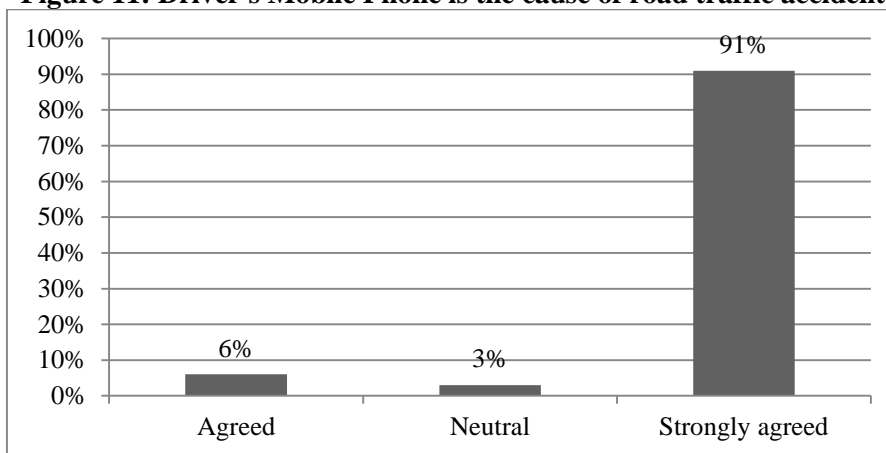
From the result it was found that 91% respondents replied that vehicle defect is the cause of road traffic accident which was maximum and 3% respondents were disagreed which was minimum.

**Table 11: Driver's Mobile Phone is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Agreed              | 24        | 6.0     | 6.0                |
| Neutral             | 12        | 3.0     | 9.0                |
| Strongly agreed     | 364       | 91.0    | 100.0              |
| Total               | 400       | 100.0   |                    |



**Figure 11: Driver's Mobile Phone is the cause of road traffic accident**

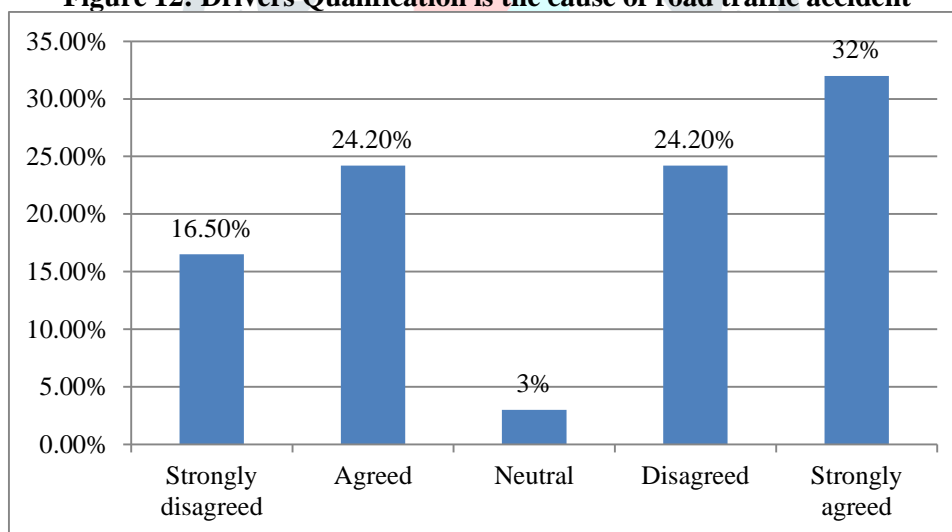


From the result it was found that 97% respondents replied that driver’s mobile phone use during driving is the cause of road traffic accident which was maximum and 3% respondents were neutral which was minimum.

**Table 12: Drivers Qualification is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Strongly disagreed  | 66        | 16.5    | 16.5               |
| Agreed              | 97        | 24.2    | 40.8               |
| Neutral             | 12        | 3.0     | 43.8               |
| Disagreed           | 97        | 24.2    | 68.0               |
| Strongly agreed     | 128       | 32.0    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 12: Drivers Qualification is the cause of road traffic accident**

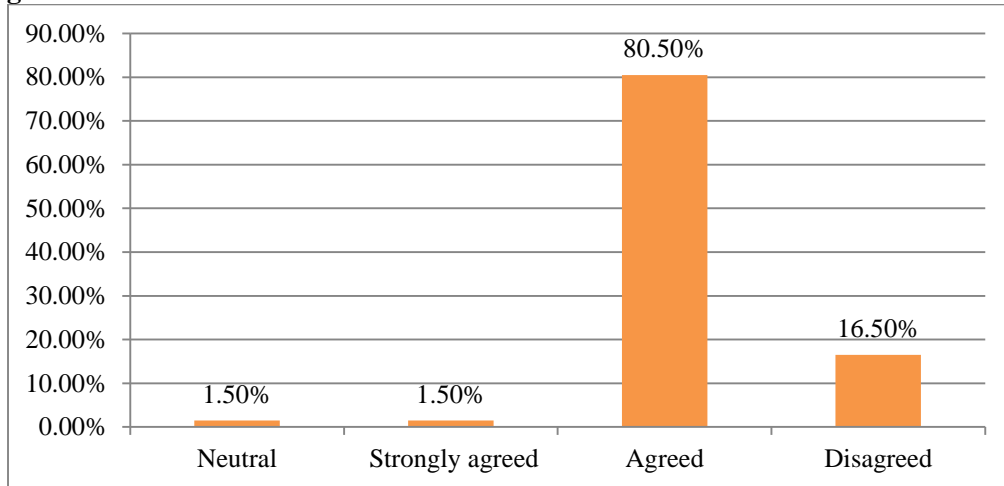


From the result it was found that 58% respondents replied that driver’s qualification is the cause of road traffic accident whereas 41% respondents were disagreed and 3% were neutral.

**Table 13: Unconscious Movement of Pedestrians is the cause of road traffic accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Neutral              | 6         | 1.5     | 1.5                |
| Strongly agreed      | 6         | 1.5     | 3.0                |
| Agreed               | 322       | 80.5    | 83.5               |
| Disagreed            | 66        | 16.5    | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 13: Unconscious Movement of Pedestrians is the cause of road traffic accident**

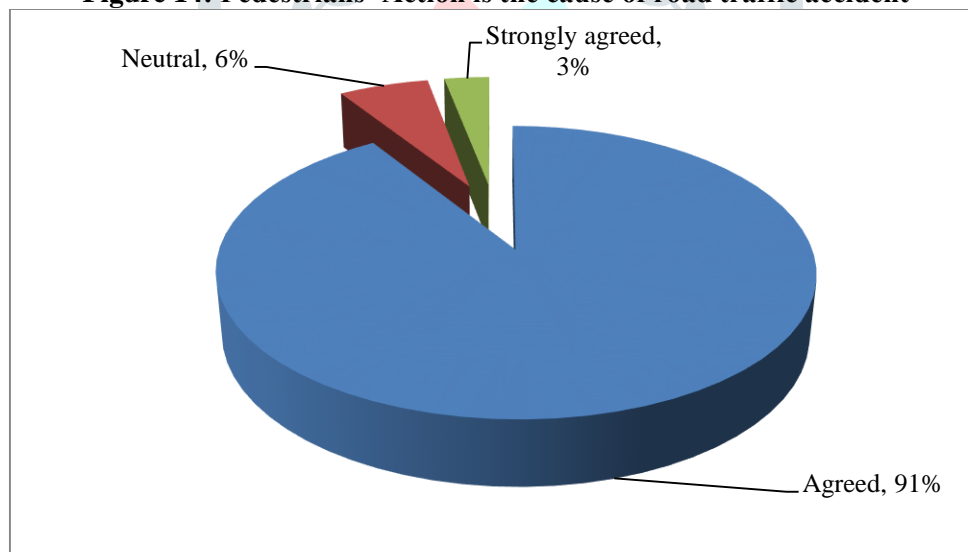


From the result it was found that 82% respondents replied that unconscious movement is the cause of road traffic accident which was maximum and 1.5% respondents were neutral which was minimum.

**Table 14: Pedestrians' Action is the cause of road traffic accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Agreed               | 364       | 91.0    | 91.0               |
| Neutral              | 24        | 6.0     | 97.0               |
| Strongly agreed      | 12        | 3.0     | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 14: Pedestrians' Action is the cause of road traffic accident**

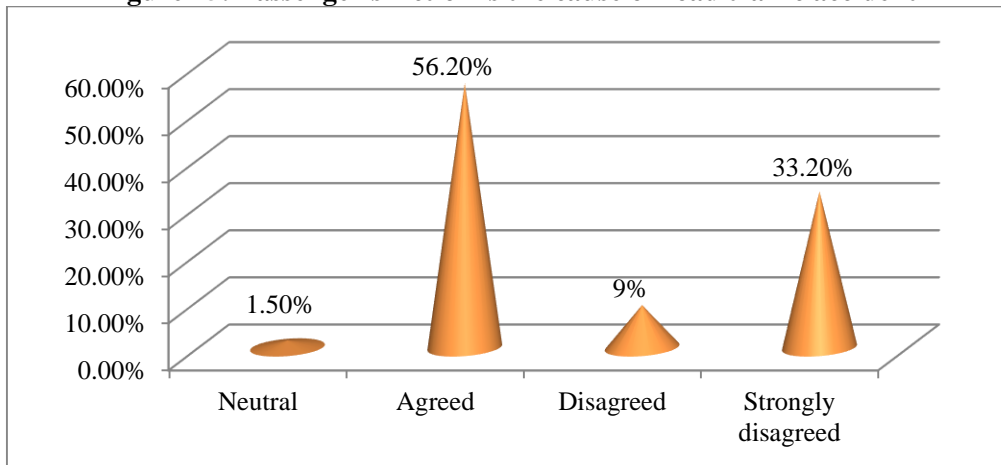


From the result it was found that 94% respondents replied that pedestrian's action is the cause of road traffic accident which was maximum and 6% respondents were neutral which was minimum.

**Table 15: Passenger's Action is the cause of road traffic accident**

| Respondents' opinion | Frequency | Percent | Cumulative Percent |
|----------------------|-----------|---------|--------------------|
| Neutral              | 6         | 1.5     | 1.5                |
| Agreed               | 231       | 56.2    | 57.8               |
| Disagreed            | 36        | 9.0     | 66.8               |
| Strongly disagreed   | 133       | 33.2    | 100.0              |
| Total                | 400       | 100.0   |                    |

**Figure 15: Passenger's Action is the cause of road traffic accident**

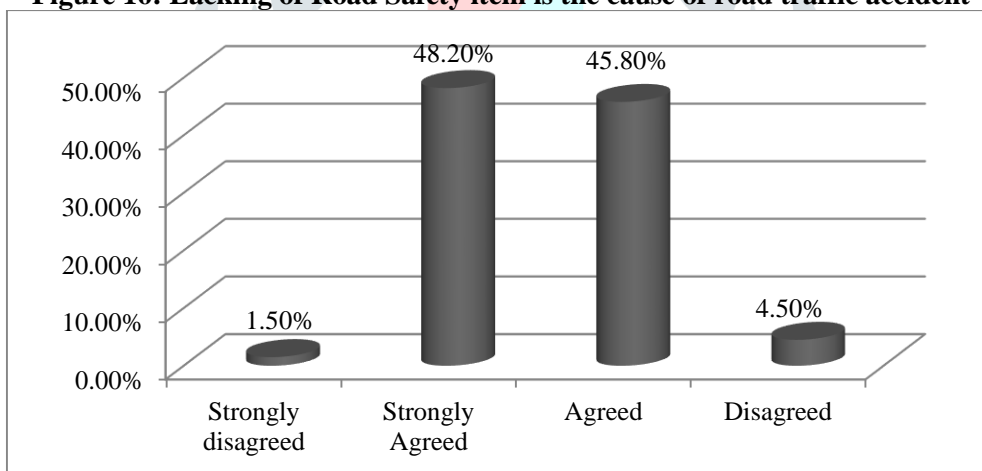


Passenger's Action is the cause of road traffic accident has shown in the above table. From the result it was found that 56% respondents replied that passenger’s action is the cause of road traffic accident whereas 42% respondents were disagreed.

**Table 16: Lacking of Road Safety item is the cause of road traffic accident**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Strongly disagreed  | 6         | 1.5     | 1.5                |
| Strongly Agreed     | 193       | 48.2    | 49.8               |
| Agreed              | 183       | 45.8    | 95.5               |
| Disagreed           | 18        | 4.5     | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 16: Lacking of Road Safety item is the cause of road traffic accident**

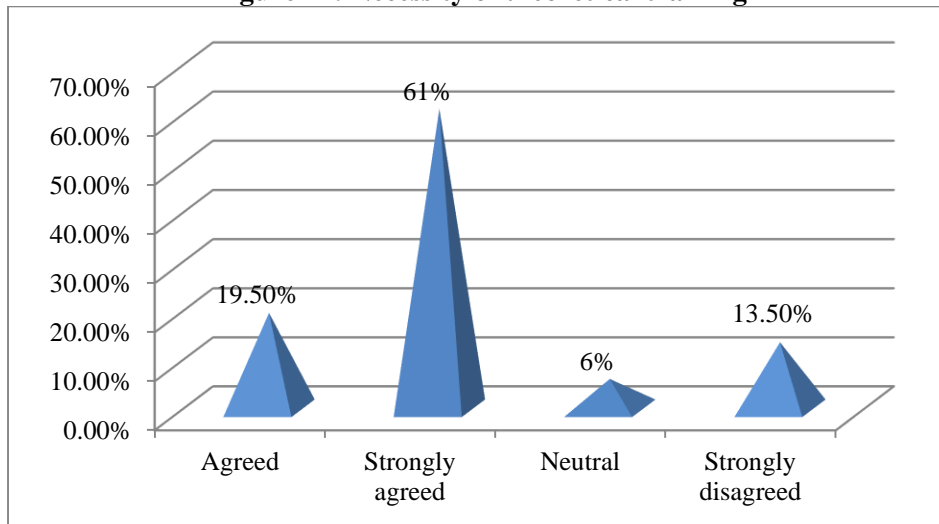


From the result it was found that 94% respondents replied that lacking of road safety item is the cause of road traffic accident which was maximum and 6% respondents were disagreed which was minimum.

**Table 17: Necessity of theoretical training**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| Agreed              | 78        | 19.5    | 19.5               |
| Strongly agreed     | 244       | 61.0    | 80.5               |
| Neutral             | 24        | 6.0     | 86.5               |
| Strongly disagreed  | 54        | 13.5    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 17: Necessity of theoretical training**

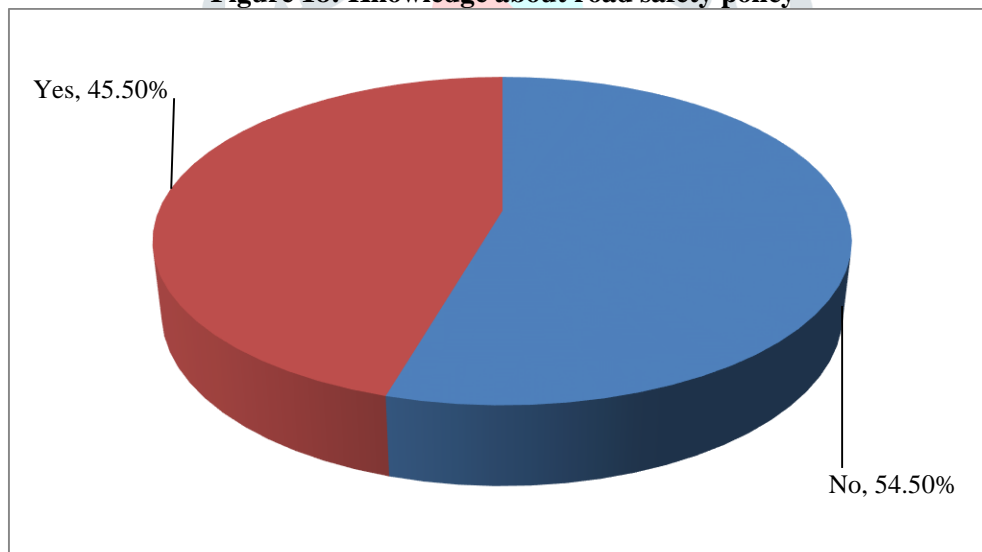


Necessity of theoretical training of the drivers has shown in the above table and graph. From the result it was found that 81% respondents replied that theoretical training is the cause of road traffic accident which was maximum and 6% respondents were neutral which was minimum.

**Table 18: Knowledge about road safety policy**

| Respondents opinion | Frequency | Percent | Cumulative Percent |
|---------------------|-----------|---------|--------------------|
| No                  | 218       | 54.5    | 54.5               |
| Yes                 | 182       | 45.5    | 100.0              |
| Total               | 400       | 100.0   |                    |

**Figure 18: Knowledge about road safety policy**



Whether knowledge about road safety policy is needed or not has shown in the above table and graph. From the result it was found that 54.5% respondents replied that they have no knowledge about road safety policy.

**CONCLUSION**

Road traffic accidents have now become a great social concern in Bangladesh and the situation is deteriorating. The annual economic wastage occasioned by traffic accidents is estimated to be in the order of 2 to 3 percent of the GDP. Each year, there are at least 3,000 fatalities and 3,000 grievous and simple injuries from around 3,500 police reported accidents on Bangladesh roads. Other sources estimated the fatalities as high as from 12,000 to 20,000 per year. Thus, the safety problem is very severe by international standards with some 60 to 150 fatalities per 10,000 motor vehicles in Bangladesh compared to around 25, 16, 2 and 1.4 in India, Sri Lanka, the USA and UK respectively. (Accident Research Institute, 2013)

The Government of People’s Republic of Bangladesh has undertaken actions to implement Sustainable Development Goals (SDG) program. It has three pillars named Safety, Engineering and Economy & Environment. Safety is the first pillar under this policy which is to be ensured properly to achieve the output from this program. Considering this, the concern agencies have also planned to ensure safety in the roads of Bangladesh.

Bangladesh Government has taken some road safety initiatives; Adaptation of National Land Transport Policy (NLTP), Established National Road Safety Council (NRSC), Road Safety Cell and District Road Safety Committees, Accident Research Institute at BUET, Highway Police cell, Road Safety Audit Report cell, Road Safety Voluntary & Advisory Group, National Road Safety Strategic Action Plan, including Training of Road Safety Professional, NGO initiative towards road safety, improved Geometric design standard and Established International, Regional Cooperation, Ensure treatment for accident victims and Ensure Justice for victims with compensation.

The government has formed a taskforce to implement the 111 point recommendation of the National Road Safety Council to restore discipline on roads. The Government also formed Dhaka Transport Coordination Authority (DTCA) for coordination of road safety activities within greater Dhaka district.

## RECOMMENDATION

In the basis of receiving information of the respondents, study of the Policies and the result of the research following recommendations for the Road Safety Management System in Bangladesh presented below:

1. **Global Plan should be implemented:** It should be taken initiative by the Government to involve NGOs, Road User's, Vehicle Owners Association, Labor Welfare Association, Representative of Print & Electronic media etc. for implementation of 'Decade of action for Road Safety 2021-2030' that targets to reduce road casualties by at least 50 percent by 2030.
2. **Target of Sustainable Development Goal (SDG) should be fulfilled:** Ensure the fund for implementing the target. Concern department should do the work according to target 3.6 & 11.2. National Road Safety Council regularly monitors the progress and coordinates.
3. **National Road Safety Strategic Action Plan should be monitored:** Regularly monitor the progress of action plan and immediate action should be taken if coordination needed with inter-ministry.
4. **Multimodal transport and land-use planning should be used:** Implement policies that promote compact urban design, lower speed of vehicles and prioritize the needs of pedestrians, cyclists and public transport users. Discourage the use of private vehicle in high density urban areas by putting restrictions on motor vehicle users. Provide alternatives that are accessible, safe and easy to use, such as walking, cycling and buses.
5. **Safe road infrastructure should be provided:** Review and update legislation and design standard that consider road function, desired safety performance standard and the needs of all road users, and for specific zones.
6. **Road Safety Audit should be done properly:** Undertake Road Safety Audit on all sections of new roads and complete assessments using independent and accredited experts to ensure a minimum standard for all road users.
7. **Vehicle safety should be ensured:** Require high-quality harmonized safety standards for new and used motor vehicles, safety belts, child restraint systems and motorcycle helmets etc.
8. **Actions should be done to ensure safe road use:**
  - Use road sign, road marking, road divider, road barrier etc. where applicable.
  - Set maximum speed limits considering the type and function of roads.
  - Mandate the use of protective equipment (safety belts, child restraints and helmets)
  - Restrict the use of handheld electronic devices while driving.
  - Establish a dedicated enforcement agency, provide training and ensure adequate equipment for enforcement activities.
  - Set out and regularly update traffic rules and code of conduct for road users.
  - Provide information and education on traffic rules.
  - Set minimum age and vision requirements for drivers.
  - Ensure minimum standards for driver competence through improved driver training and testing procedure.
  - Set limits for maximum driving time and minimum rest periods for professional drivers.
  - Make liability insurance mandatory for drivers of motorized vehicles.
  - Clear road signage and road markings that are intuitive.
  - Educating all level pedestrians and mass people for safe walking.
  - Awareness and capacity building for the drivers community for safe driving.
  - Developing community traffic policing system.
9. **Post-crash response should be improved:** Rapid actions to be taken to improve the post-crash response and provide a unique emergency telephone number with national coverage and strengthen professional medical care. Provide recovery and rehabilitation services to prevent permanent disability.
10. **Co-ordination should be established:** Establish coordination mechanisms for post-crash investigation and sharing of data by relevant sectors.
11. **Legislative framework should be provided:** Providing a legislative framework for road safety and legal mandate for the work of different agencies within and outside government.
12. **Black spot should be identified:** By analyzing accident data it has been needed to identify black spots and take safety engineering measure.
13. **Pedestrian friendly Intersection should be design:** For easy and safe movement of pedestrians, engineers should design the road intersections safely; specially in Dhaka and Chattagram city.

14. **School zoning should be marked:** Providing speed controlling devices in school zone area and marking the road for safe movement of students.
15. **Booklet should be prepared:** To buildup awareness among the school children it is recommended to prepare a booklet about traffic rule and safe road uses.
16. **Maintenance of Utility services guide lines should be prepared:** In city area different agencies works at different time. There is no coordination among them. Water & sanitation, Gas, Electricity, Internet cable, Telephone line maintenance work create traffic congestion and unsafe movement of pedestrian. So, it should be prepare a guide line for coordination of inter-ministry.
17. **Public transport guide line should be prepared:** It should be prepare a guide line for public transport about safety of passengers.
18. **Special segments should be design for safety:** Sometimes the level of the level crossing found elevated than the approaching road. In that case, the adjacent road of the level crossing becomes tattered. To address this it is recommended to design the adjacent approach road with a combination of sag and summit curve.
19. **Driver's attitude should be tried to change :** By proper training and motivation, driver's behavior try to change for over speed driving, competitive driving, risky over taking and overloading.
20. **Roadside Hazard should not be allowed: Stacking** different types of construction materials, road side dwellers and other hazards should be free from road site in Highway's.
21. **Accident database should be preserved:** To prepare safe design, policy making, research or revision of design accident database should be strong and authentic.
22. **Automatic traffic sign should be established:** By proper survey and design automatic traffic sign should be apply.
23. **Lane speed marking should be provided:** To avoid traffic congestion and easy passing of vehicle, lane wise speed marking should apply in city area like Dhaka Cantonment area.
24. **Motor Cycle import and registration should be controlled:** It is strongly recommended to control import high speedy motor cycle and prepare regulation for its use.
25. **Foot over bridge should be user friendly:** It should be design to easy and safe use for pedestrians; if necessary it should construct escalator in city area.
26. **Road Safety unit should be strengthened:** Strengthening the road safety unit of RHD and LGED.
27. **Landscaping should be provided:** Landscaping may be used in conjunction with other traffic calming measures such as roadway narrowing, traffic islands, and sidewalk improvements to improve the pedestrian environment, define pedestrian and vehicle areas, and provide horizontal separation between motor vehicles and pedestrians.

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