WOLKITE UNIVERSITY

COLLEGE OF SOCIAL SCIENCE AND HUMANITIES

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES

ASSESSMENT OF ROAD TRAFFIC ACCIDENT IN CASE OF LAFTO SUB CITY, ADDIS ABABA, ETHIOPIA

A Senior Essay Submitted to Department of Geography and Environmental Studies in Partial Fulfillment of Bachelor of Art (Ba) Degree in Geography and Environmental Studies

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A senior essay submitted to the Department of Geography and Environmental Studies in the Partial Fulfillment of the Degree of Bachelor of Art in Geography and Environmental studies Assessment of road traffic accident: In Case of Lafito sub city, Addis Ababa, Ethiopia.

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Declaration

This is to confirm that, this senior essay entitled "assessment of road traffic accident in lafito sub city" submitted in partial fulfillment of the requirements for the award B.A. degree in Geography and Environmental studies is our original work done under the guidance of Mathewos Amerga(MA.) the candidates, whose name, id.no and signature is depicted below confirm that the matter embodied in this senior essay has not been submitted earlier for an award of any degree. We also assure that all relevant sources of information used in this senior essay have been duly acknowledged.

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Abstract

The study was focused on the assessment of prevalence of road traffic accident in Lafto sub city. The road traffic accidents are major and neglected public healthy challenges. The researchers selected the sub city purposively and 99 sample households by simple randomly sampling techniques. Both primary and secondary methods of data collection were used. Primary data was collected form Lafto sub city traffic police department and interview and questionnaire. In addition, secondary data from various sources were collected in order to complement the primary data. The secondary data was collected from three document that means from 2020-2022. Data was analyzed by qualitative and quantitative data analysis techniques like table and percentage. The finding of the study show, that the cause of road traffic accident in the city was failure to give way of pedestrian, over speeding, nature of the land was ranked form 1-3interims of severity. The highest prevalence of road traffic accident in the study area was recorded in 2022. Therefore, recommendation is given for minimizing this problem or prevalence of road traffic accident like creating awareness for the people by creating awareness traffic rule and regulation, checking the driver license, increase the number of traffic sign and the zebra cross.

Key term: - road traffic, prevalence, accident, factor, road traffic accident

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Acronyms and Abbreviations

LTP:	Lafto traffic policy
RAT:	Road traffic accident
TA:	Traffic accident
UNECA:	United nation economic commission for Africa
WHO:	World health organization

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CHAPTER ONE

1. Introduction

1.1. Background of the study area

A road traffic accident is an incident on a way or street open to public traffic, resulting in one or more person being killed or injured, and involving at least one moving vehicle. Road traffic accident is a major public health problem worldwide. It includes collisions between vehicles and animals, vehicles and pedestrians, vehicles and fixed objects or vehicles and vehicles (Bereket et al., 2016). According to WHO (2018) report, there are 1.35 million deaths per year a road traffic accident is the eighth leading cause of death for all age groups globally. Road traffic accidents are a serious public health problem worldwide [WHO, 2009].

Road traffic accidents (RTAs) are a significant public health challenge and projected to be the fifth leading contributor to the global burden of disease by 2030 (Mathers CD, Loncar D ;(2014]. Road deaths and injuries are preventable. They are one of the leading causes of premature deaths, hospitalizations, disabilities, and socioeconomic losses. RTA ranks as the 11th leading cause of death and accounts for 2.1% of all deaths globally. The road traffic accident leading cause of death by injury and the tenth leading cause of all death the global now make up a surprisingly significant portion of the worldwide burden of ill health (WHO report of road traffic accident 2007). An estimated 1.2 million peoples are killed in road crash in each year and as many as 50 million are injured occupying 30 percent to 70 percent of orthopedic beds in developing counters hospital and it`s percent trends continue road traffic injury are predicated to the third leading contribute to the global burden of disease and injury 2020. Developing countries bear large share of the burden accounting for 80 percent of annual death 90 percent of the disability adjusted life year (DALYS) lost because of road traffic accident or injury and since road traffic injury affect mainly mal (73% of death) and those are between 15 and 45 years old this burden is creating enormous hard ship due to loss of family bread winner`s world health organization (WHO, 2007).

Road traffic accident is the series issue in Africa and it is from most killer disease. The numbers of road traffic injuries and deaths have been increasing from time to time. African Region had the highest rate of fatalities from road traffic injuries worldwide at 26.6 per 100 000 population.

The increased burden from road traffic injuries and deaths is partly due to economic development, which has led to an increased number of vehicles on the road. Given that air and rail transport are either expensive or unavailable in many African countries, the only widely available and affordable means of mobility in the region is road transport. However, the road infrastructure has not improved to the same level to accommodate the increase commuters and ensure their safety and as such many people are exposed daily to an unsafe road environment (Abegaz et al., 2014).

In Ethiopia, the situation has been worsened as the number of vehicles has increased consequently due to increased traffic flow and conflicts between vehicles and pedestrians [Guyu, F, (2011). Despite government efforts in the road development, road crashes remain to be one of the critical problems of the road transport sector in Ethiopia (UNECA, 2009]. Every year, many lives are lost and huge property is destroyed due to road traffic accidents in the country. The Country has experienced average annual road accidents of 8115 over the past 11 years (CSA, 2000 _ 2012]. Currently, the financial estimation of property damage (excluding human deaths and injuries), is more than 15 million Ethiopian birrs annually on average [CSA, 2000_2012). Ethiopia is one of the developing countries which the worst road traffic accident recorded as measured by death rate of 170 per 10000 by motor vehicle Ethiopia there are few large towns and many urban counters but because of the concentration of administration economic activity and population in the is very Paramount's, (Ethiopian road authority 2005).
Addis Ababa is the capital city of Ethiopia with a population of 3,384,569 covering an area of 527 km². It has 10(districts), Nifas Silk-Lafto, is one of the 10 sub cities and in 2011 population of Lafto sub city is 335,740, area (Km2) 68.30, Density 4,915.7, latitude 8.95731°, Longitude 38.72518°. The district is located in the southwestern suburb of the city. It borders with the districts of Kolfe Keranio, Lideta, Kirkos and Bole and Akaky Kalita (Transport policy of Addis Ababa 2011). The aim of this study was to assess the prevalence of Road Traffic accident and factor associated with road traffic accident in Lafto sub city, Addis Ababa, Ethiopia.

1.2. Statement of the problem

In Ethiopia, the rate of road traffic accidents is very high and at least 114 people die for every 10,000 vehicle accidents annually. The road traffic accidents are major and neglected public healthy challenges. It needs strong effort for effective and continues prohibition of all of the system which all people have to delay every day (Vinland mnantuya, 2007).

As the researchers tried to observe different researches what the researchers found was that there are different researches about road traffic Accident which are done by researchers. Tesema (2005) conducted research on the prevalence of road traffic accident data comprising a dataset of 4,658 accident records at Addis Ababa traffic police commission to investigate the application of data mining technology for accident severity using classification of algorithms and use only quantitative methodology.

Also, Guyu (2011) studied, spatial distribution of the severity of road traffic accident among the 10 sub-cities of Addis Ababa. The previous the research on researchers are done on prevalence of road traffic accident in Addis Ababa but in Lafto sub-city the researchers are not saying there is no research at all but the researches that are found are not enough and they focused only on prevalence so that the researchers want to conduct also major cause of road traffic Accident And why the researchers want to conduct the research in this specific area because the researchers observed different types of problems in the lafto Sub-city because of road traffic Accident and wanted to conduct a research in order to create awareness in the community, The other most important reason to conduct this research is the methodology of the researches the researchers found are more quantitative which may neglect the views and opinions of individuals in specific issues and the researchers believe that in topics like road traffic accident it is better to use mixed research method because it is hard to conduct a research in this topic only using quantitative methodology. Therefore, the aim of this study would be to assess the prevalence of road traffic accident in case of lafto sub-city with mixed research methodology**.** This research methodology would tend to fill the methodological gap of the research. The researchers were using mixed research methodology rather than using quantitative methodology as Tasema's research (2005). The other gap this research is going to fill the prevalence, cause and government effort on the overcome of this problem but other researches focus only the prevalence of road traffic accident. And also, this research would fill the place gap sufficient researches are not done in Lafto sub-city about road traffic accident.

1.3. Objectives of the study

1.3.1. General objective

The general objective of the study was Assessment of Road Traffic Accident in Lafto sub city, Addis Ababa, Ethiopia

1.3.2. Specific objective

- To examine the prevalence of Road traffic accident Among Lafto sub city.
- To assess the major cause of road traffic accident in Lafto sub city.
- To find out the effort under taken by the government to over comes these problems.

1.4. Research questions

1. What is the prevalence of road traffic accident Among Lafto sub city?
2. What are the major causes of road traffic accident in Lafto sub city?
3. What are the efforts under taken by the government to overcome this problem?

1.5. Significance of the study

The study would identify the cause of road traffic accident, and would use as an input for transport office to reduce the rate of accident by arranging of some solution. The study would also generate sources for other researchers who would interest to conduct further research in this area and title. And, to increases the awareness (attitude) of pedestrians, driver children and all victim or vulnerable of road traffic accident which effect on economic, social, cultural and political this study provides better understanding of the existing of traffic accident in severally manners. At the end of the day significance of the study would take in confederation about Lafto sub city which clarify any vehicle accident.

1.6. Limitation of the study

When the study was conducted the researchers face a lot of challenges like lack of financial problem for transport, unwillingness of the respondent to response the questions and lack of available information for review literature. Therefor the researchers suspect that: those constraints might have slight impact in compromising on the quality of finding of study.

1.7. Scope of the study

The study would delimit to Lafto sub city. This study was concern with the assessment of road traffic accident and factors affecting road traffic accident of Lafto sub city. So, the researchers would focus on only the single Lafto sub city. by using mixed research approach in Addis Ababa lafto sub city 2023.

1.8. Organization of the Paper

The research paper would contain five chapters. The first chapter deals with background of the study, statements of the problem, objective of the study, includes general and specific objective, significance of the study, limitation of the study and delimitation of the study. The second chapter deals with literature review. The third chapter contains description of the study area, methodology and data type. The fourth chapter was containing data analysis and interpretation and the fifth chapters contain conclusion and recommendation.

CHAPTER TWO

2. Review of related literature

2.1. Definition of key terms

Factor: is something that actively contributes to the road traffic accident in the production of the results.

Traffic: the movement (as of vehicles or pedestrians through an area or along a route.

Road traffic: the traffic of vehicles, pedestrians and other participants in the traffic in a public or non-categorized road used for public road traffic.

Accident: an event leads to personal injury or damage to property that has taken place in an area.
Prevalence: the proportion or level of Road traffic accident during a particular period of time.

2.1.2. Definition of road traffic accident

Road traffic accidents are one of the leading causes of injuries and death in both developed and developing countries. Accident which occurred or originated on a way or straight open to public traffic, which resulted in one or more person being killed or injured and which at least one moving vehicle was involved. This accident therefore includes collusion between vehicle and pedestrian and between vehicle and animals (UN, 2014). Traffic collusion occur when a vehicle collides with another vehicle, pedestrian or other obstruction; such as trees or utility poles. Traffic collusion may result injury death vehicle damage and property damage. Many different terms are commonly used to describe vehicle collision. The world health organization use terms road traffic accident or injury while the US census bureau's use the term motor vehicle traffic collusion (MVIC)''.

2.2. Global View of prevalence of Road Traffic Accident

Road accident is one of the causes for the death of people and has been ranked as one of the top leading causes of death in the world. Over millions of people are killed each year. Every day, thousands of people are killed and injured on road by traffic accident. It is the leading cause of death, disabilities and hospitalization, sever socioeconomic costs, across the world. According to (WHO, 2018), it has been estimated that Road Traffic Accident takes the live of over 1.35 million each year. Developing country bear brunt of the fatalities and disabilities from road crush accounting for more than 85% of the world road fatalities and result in about 90% of the totally DALYS disability lost due to road traffic injury. The problem is increasing in this country at a fast rate, while it is declining in all industrialist nations (Western Europe, North America, Japan, Australia and New land). The annual cost of road crush is in access US dollar 500 billion and in the developing world the estimated cost is about USA dollar 65 billion each year, due to the scarcity of cost data for African country. It is difficult to make price estimate of the cost road crush in the continent. However, some cost data are available for Zambia, Botswana, Kenya, Tanzania, Ethiopia and South Africa. The estimate cost in these countries as a percentage of GNP, long from about 0.8 in Ethiopia and 1% in South Africa to 2.3% in Zambia and 2.7 % in Botswana at almost 5% in Kenya (Ethiopia road authority, 2005).

2.3. Factors of Road Traffic Accident in Ethiopia

Road traffic injuries are the major public health and development challenges that will worsen if effective steps are not taken to curb it. Road traffic crushes affect not only the health of individuals but also their family members, as it can drive households into poverty when they struggle to copy with the long-term consequences of the events, including the cost of medical care rehabilitation and loss of family breadwinners. Road traffic crash is a major health problem which contributes significantly to morbidity and mortality rate in Ethiopia (Ethiopian road authority, 2005).

2.4. Factor of prevalence of road Traffic Accident in Lafto sub city

Road safety is both a health and development issue of concern considering its prevalence Road traffic injuries are the major public health and development challenges that will worsen if effective steps are not taken to curb it. Road traffic crushes affect not only the health of individuals but also their family members, as it can drive households into poverty when they struggle to copy with the long-term consequences of the events, including the cost of medical care rehabilitation and loss of family breadwinners. Road traffic crash is a major health problem which contributes significantly to morbidity and mortality rate in Ethiopia and gravity and its consequent impact on the economy, public health and the general welfare of the people, particularly those with low incomes.

Humanitarian aspects of road safety, the fatalities, injuries and property damage which occur as a result of road accident have serious implication on Lafto sub city as well as a country in both social and economic terms. The result of this study that the major factors contributing RTAs in Lafto sub city including speed, irresponsible driving, violation of traffic laws, purely managed and placed of damage a vehicles and unsafe road. RTAs in Lafto sub city was identified not only as causes of health crisis on individuals of family members of victim(s) but also an issue of serious economic, social and psychological crisis with it short- and long- term impact (WANNO WALLOLE WABARA, 2013).

2.5. Cause of prevalence of road traffic accident

According to UNECA (2009), in Ethiopia more than 90% 0f the traffic accident is caused by human error. The major causes of traffic accident are failure to give way for pedestrian followed by over speeding and failure to give way for other vehicle in that order. However, the major cause of fatality accident their order of important are failure to give way for pedestrian, over speeding, failure to respect right way rule. The cause for driver error is many which include I adequate training, driver under the influence of alcohol drink, drug or chewing chat and other. The traffic accident statics on (2007/08) also indicate that over 5% of the total fatal accidents occur when driving without having driver license. Multiple factor or failure associated with the road and environmentally deficiency, vehicle defect and road use error. Among the main cause of road traffic accident, the most important are: Driving under the influence of the alcohol

(drug), Driving above speeding limit (to fast speed), Failing to observe traffic sign, misperception and panic reaction from the in experienced driver, Road unsuitable for motor vehicle such as narrow road, low quality shoulder surface, lack of none motorized lone (path, undefined crossing side, dangerous curve etc.) and Lack of proper single, intersection lay out control. Most scholars classify these causes in to three majors` class of error as a road user factor, vehicle factor and environmental factors. Betw.M (2002).

2.6. Road user factor

Driving skill, which require training and experience and a driver who is in charge of vehicle should be physically and mentally capable. About 80-90 percent of the road traffic accidents were attributes the fault of the driver. The common driving errors are lack of observation, driving fast, failure to look. This will be server it the driver is impaired due to alcohol drug, illness, fatigue and stress. Pedestrian are the other victims of the most RATS particularly children below the 15 years. They are most vulnerable to motor vehicle accident, because of many children most of time especially in urban area of developing countries where there is little availability of playground garden in their neighborhood and road crossing; they are easily exposed to traffic accident. (Road.Traffic, 2007)

2.7. Vehicle factors

It is not only the important in the standard and design of vehicle that matter, but also adequate maintenance of vehicle during it works life. Older vehicle with mechanical defect and poor maintenance cause higher fatal injure and property damage. In most case defect associated with break, tire, light and other mechanical defect are associated with accident (Betew.M, 2002)

2.7.1. Environmental factors

There is an intimate relationship between defect of road and road traffic accident. The design, light and surfacing of road can affect injury rate and well-designed road allow great margin of safety. Many accidents needlessly occur because of the fatality provided do not adequately allow for the rage of individual requirement of separate group of road user particularly the pedestrian. In many developing countries duo to limited financial resource road construction and maintenance is poor. In addition, road is not bordered by side walk for pedestrian. Both the vehicle and pedestrian are forced to share the availability road and street, which contribute to high traffic accident in those countries (Tesfalem.H, 2006).

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Description of the study area

3.1.1. Location

Nifas silk lafto is one of the ten sub cities in Addis Ababa city administration. It covers an area of 5876.02 hectare. It situated in the south western part of Addis Ababa, bounded from south by oromia special zone from North West by Kolfe keranio, from east by Bole and Akaki kality and from north by Lideta and Kirkos. At present, the sub city divided into 12 woredas.The absolut location of lafto sub city is 8^{o} 57’ 26’’N and 38^{o} 43’30’’E.

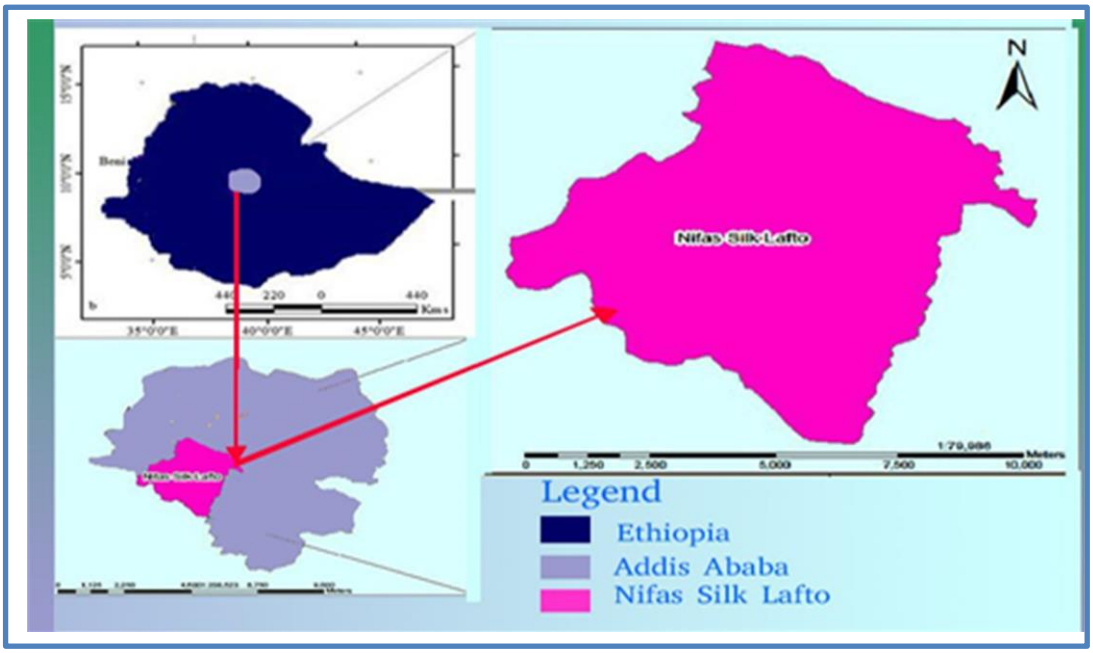


Figure 3.1. Mape of the study area: Source:Arc GIS 2023

3.1.2. Topography

3.1.2.1. Slope

Nifas silk lafto sub city is characterized by moderately steep slope type of topography with noticeable elevation difference and steep land scape around river gorges. Generally speaking, in the sub city, the altitude ranges from 2074 to 2485 meters above sea level which has a range of 411 meters.

3.1.3. Land area and population of nifas silk lafto

The land area covered by nifas silk lafto sub city is 5879.02 hectares, this constitutes 11.31%of the total land area of the city which makes the Nifas silk lafto sub city in 5th place in land area covered from the 10 sub cities. Among the 12 woredas in nifas silk lafto, the large area is covered by woreda 01 with 2592.83hectars that is 44.12%of the sub city land area, and woreda 08 covers the smallest land area of 105.84 hectares which is 1.8%of the sub city land area.

3.1.4. Population size and density of nifas silk lafto

According to the 2011 census, the total population with in this sub city is 335,740 which is 10.42% of the entire population of the city. Lots of people live in woreda 01 with population number of 39,512. Average of 48.58 people live in each hectare area of the sub city which makes Nifas silk lafto the 7th densely populated sub city in Addis.

3.1.5. Climate

Nifas silk has a temperate High land Tropical climate with dry winter climate and Located at an elevation of 2220.61 meters (7285.47) above sea Level. The districts yearly temperature is 17.8 ℃(64.04℉) and it is -4.43% lower than Ethiopia averages. Nifas silk is typically receives about 82.14 millimeter (3.23 inches) of precipitation and has 155.37 rainy days (42.57% of the time) annually.

3.2. Research methodology

In order to achieve the objective of the study, the researchers would use both qualitative and quantitative research designs because when the researcher’s missed information and data either of two methods, we would substitute the other method. The qualitative method would be need to

study information like the one attitude, beliefs, behaviors and motivations of individuals to explore information while quantitative would use through numerical methods.

3.2.1. Research design

This study in terms of time span used Descriptive Cross-sectional study design. This study design has a profound importance in examining the assessment of road traffic accident by describing and narrating the facts behind. In addition, Descriptive research design enables the researcher's, to describe the status of phenomena or relationships among phenomena at a fixed point in time. This can be thought as a "snapshot "of the frequency and characteristics of a condition in population at a particular point in time. And also, descriptive/analytical cross-sectional studies are useful for us to establishing preliminary evidence for a causal relationship, describing, explaining and validating our research findings.

3.2.2. Target population and sampling method

The total population of the study area is 335,740 From This total population 10,000 are households and then the researchers would take as a sample of lafto traffic police commotion (2022).

3.2.3. Sampling techniques

For this research we would use both non probability sampling and probability sampling. Under non probability sampling, the researches would use purposive sampling techniques. The target population of the study would be selected based on the researcher`s desperation whom we think are knowledgeable and provide us the suited information related to the study issues would be undertaken. Among the probability sampling techniques, we would use simple random sampling technique is that it provides equal chance of being included in sample to each population. In general, this technique has been preferred from other sampling systems in order to avoid bias.

3.2.4. Sample size

The study was conducted in lafto sub city having this total population of 335,740 live in the sub city. From this total population there are 10,000 house hold head (CSA2000-2012). the researchers were selected 99 respondents by using random sampling techniques. The number of the sample size for the researchers would determine based on formulas by Yeman Tao (1967) is

suggested over other available formulas found in statistics books because it yields a more adequate sample size when the population is small and the normal approximation of the population is poor.

$n= N/1+N (e)^2$

Where, N= Number of total household head

n=total sample size

e= margin of error (0.1%)

Therefore $n= 10,000/1+10,000 (0.1)^2$

$= 10,000/1+10,000(0.01)$

$= 10,000/1+100$

$=10,000/101$

$= 99$

n =99

3.2.5. Source and types of data

All required data for this study would be both primary and secondary data collected from primary and secondary sources respectively. Primary data would be obtained from respondents and field observation. Secondary data would be collected from published and unpublished documents, reports of road traffic accident office of Lafto sub city.

3.2.6. Data collection methods

3.2.6.1. Primary data collection

Questionnaires

The Researchers was collected information form respondents by using questionnaire. Questionnaire is the most widely used technique for obtaining information from sample subject use to collect primary data through open and close ended. Open ended questionnaire is collected

or give freedom for the people what they feel about the matters or answer their own words. Close ended questionnaire has short answer for the people that are determine by the research both close ended and open- ended questionnaire save the total expenditure of the study. The researchers primarily prepare the questionnaire in English language and Amharic language because used to clear the questions for the respondents.

Interview

Interview would be used to collect data from Road traffic accident office and persons who live in the study area for long time.

3.2.6.2. Secondary data collection

Secondary data is collection of information from published and unpublished documents, books of Road traffic accident office of lafto sub city.

3.3. Method of data analysis

The researchers would use both qualitative and quantitative techniques in the study percentage table and frequency table are use which make and analysis clearly for group who want to use the study as a part of their solution oriented of their factor. After gathering all the necessary qualitative data through questionnaire and interview analysis are performed. Sampling descriptive statistical analysis method used for analysis of quantitative data frequency, percentage, and the qualitative data obtain from interview analyzed and interpret with qualitatively.

3.3.1. Ethical Consideration

During conducting this research, the researchers would accept these ethical considerations. The researchers got permission from road traffic accident office of Lafto sub city and other concerned bodies to collect like the exact number of traffic accident in this area. And the researchers have made the participants/ the community to know the purpose of the study and gave them all information regarding the research, finally, the readymade questionnaire would administer that for the selected participant by the researchers.

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPERITATION

4.1. Demographic analysis

4.1.1 Age Distribution of respondents

Age is an important demographic character of respondent that influence the participation of respondent to solve road traffic accident.

Table 4.1.1 Age distribution of respondents

Age group	Frequency	Percentage
19-29	49	49.5%
30-39	22	22.22%
40-49	18	18.18%
Above 50	10	10.1%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

As the above table 4.1.1 shows that, majority of respondents were lay between age 19-29 accounts about 49.5% both male and female. This age group is well known by its productivity and more powerful to perform any activities. The remaining 22.22%, 18.18% and 10.1% of respondents were ranging 30-39, 40-49, and above 49 respectively. From thus age group the oldest above 49 years old have less contribute to the cause of road traffic accident.

4.1.2 Sex Distribution of Respondents

Sex structure is one of the demographic factors which affect social, economic and political aspect. As a result, this study identified the sex structure of respondents as follow.

Table 4.1.2; sex distribution of respondents

Sex	Frequency	Percentage
Male	37	37.37%
Female	62	62.63%
Total	99	100%

Source; gain from respondents by using questionnaire 2023.

Both male and female respondents were participated in this research. Majority of the respondents were females which account 62.63% and the remaining 37.37% were males.

4.1.3 Education Status Respondents

Table 4.1.3; education status

Level of education	Frequency	Percentage
Can't read and write or illiterate	5	5.05%
Read and write	11	11.11%
Primary school	19	19.2%
Secondary school	29	29.29%
Diploma	25	25.25%
Degree and above	10	10.1%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the educational status of respondents 25 (25.25%) were diploma, 5(5.05%) were illiterate, 19(19.2%) were primary school, 29(29.29%) were secondary school, 11 respondents (11.11%) was can read and write and 10 respondents were degree and above (10.1%).

4.1.4 Marital status

Table 4.1.4 marital status of the respondents

Marital status	Number of households	Percent (%)
Married	56	56.6
Unmarried	33	33.3
Divorce	10	10.1
Total	99	100

Source; lafto sub city respondents 2023

According to the above table 56 respondents (56.6%) were married 33 respondents (33.3%) were unmarried and 10 respondents (10.1%) were divorced. Generally majority respondents were married which account 56.6% of the total respondents.

4.1.5 Religion of the respondents

Table 4.1.5 Religion of respondents

Religion	Number respondents	Percent (%)
Muslim	44	44.4
Orthodox christen	25	25.3
Protestant	20	20.2
Catholic	10	10.1
Total	99	100

Source; gained from respondents by using questionnaire 2023

The above table shows that 44 respondents (44.4%) were Muslim,25person (25.3%) orthodox Christianity, 20, respondents (20.2%) are Protestants and 10 respondents (10.1) were catholic. Generally, the majority of respondents were followers of Islam which account (44.4%) of the total respondents.

4.2 prevalence of road traffic accident in lafto sub city

Table 4.2.1; road traffic accident in lafto sub city

How many times happen road traffic accident in this year	Frequency	Percentage
Frequently	76	76.8%
more frequently	23	23.2%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the above table 4.2.1 much of sample respondents were respond, in lafto sub city there is road traffic accident. Out of 99 respondents about 76.8% were said that there is road traffic accident and the remaining 23.2 % were said that, there is less road traffic accident occurred.

4.5 Level of prevalence of road traffic accident in different years

Table 4.2.2; accident distribution of Nifas silk sub city according to three years

Year	Frequency	Percentage
2020	2601	30.2%
2021	2870	33.3%
2022	3151	36.5%
Total	8622	100%

Source; lafto traffic police commission document analysis

Therefore, up on the collected data, Nifas silk sub city has been experiencing a total of 8622 number of accidents were recorded within three years.

Table4.2.3; road traffic accident in lafto sub city

In which time of a day road traffic accident are highest	Frequency	Percentage
Daytime	82	82.8%
Night time	17	17.2%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the above table 4.2.3, much of sample respondents were respond, in lafto sub city there is road traffic accident occurred at daytime. Out of 99 respondents about 82.8% were said that there is road traffic accident occurred at daytime and the remaining 17.2 % was said that, there is less road traffic accident occurred at night time.

Table4.2.4; road traffic accident in lafto sub city

What is the level of prevalence of road traffic accident in this year	Frequency	Percentage
High	20	20.2%
Low	25	25.3%
Medium	54	54.5%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the above table 4.2.4, much of sample respondents were respond, in lafto sub city there is road traffic accident. Out of 99 respondents about 54.5% were said that there is medium road traffic accident occurred in this year, 25.3 % was said that, there is low road traffic accident occurred in this year and 20.2% was said that, there is high road traffic accident occurred in this year.

Table4.2.5; road traffic accident in lafto sub city

Which age group is more affected by road traffic accident	Frequency	Percentage
7-13	9	9.1%
14-18	15	15.2%
19-31	42	42.4%
32-50	20	20.2%
Above 50	13	13.1%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the above table 4.2.5, much of sample respondents were respond, in lafto sub city. Out of 99 respondents about 42.4% were said that this age group is more affected by road traffic accident and the remaining 9.1 % was said that, this age group is less affected by road traffic accident.

Table4.2.6; road traffic accident in lafto sub city

In term of sex who are the most affected by road traffic accident	Frequency	Percentage
Male	69	69.7%
Female	30	30.3%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

According to the above table 4.2.6, much of sample respondents were respond, in lafto sub city. Out of 99 respondents about 69.7 % were said that male is more affected by road traffic accident and the remaining 30.3 % was said that, female is less affected by road traffic accident.

Table4.2.7; road traffic accident in lafto sub city

Do you think the government is giving enough effort to solve the prevalence of road traffic accident	Frequency	Percentage
No	35	35.4%
Yes	64	64.6%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

Table 4.2.7 indicate that 64.5% of the respondents the government is giving enough effort to solve the prevalence of road traffic accident and 35.4% of the respondents the government is not giving enough effort to solve the prevalence of road traffic accident.

4.3 Cause of road traffic accident

Table 4.3.1; Cause of road traffic accident in Lafto sub city

cause of road traffic accident	Frequency	Percentage
High speed driving using	16	16.2%
Alcohols and drug	19	19.2 %
Lack of pedestrian`s road	28	28.3%
The nature of the road	36	36.3%
Total	99	100%

Source; gained from respondents by using questionnaire 2023

Table 4.3.1 indicate that 36 of the respondents said that the first (36.3%) were cause of road traffic accident in lafto sub city is the nature of the road. Second 28 of the respondent said that (28.3%) were in cause of lack of pedestrian`s road. third 19 of the respondent said that (19.2%) Were by the cause of alcohols and drug and finally 16 respondents of said that (16.2%) were by the cause of high speed driving using.

There were a number of road traffic accidents in lafto sub city. However, the causes were changeable from one year to another year. The following table express the different cause that were actuality causing the road traffic accident from 2020-2022.

Table 4.3.2; Cause of road traffic accident in Lafto sub city

Year	2020			2021			2022			
Cause	Light injures	Death	Heavy Injure	Light injures	Death	Heavy injure	Light injury	Death	Heavy injury	Light injury
Less emphasis for pedestrian	15	5	2	9	4	2	18	1	7	16
Nature of the road or topographic factor	18	10	5	25	11	7	30	8	16	34
Over speed	6	4	2	10	2	4	4	4	6	17
Over loading	-	-	-	-	-	-	-	-	-	-
Using alcohol and drug	-	-	-	-	3	1	4	5	4	13
Car problem	-	-	-	-	-	-	-	3	1	3
Error pedestrian	-	-	-	-	-	-	-	4	-	4
Total	39	19	9	44	20	14	56	27	34	84

Source; Lafto traffic police commission analyzed document (2022)

Table 4.3.2 indicate that the cause of road traffic accident in the study area were just a lot. The number of deaths was registered by the cause of less priority or emphasis for pedestrian. Are the report of this registered the responsible for this death of 15.26% from the total cause. This cause

was resulted from miss behavior of the driver, lack of resource for pedestrian and addictedness of the driver. The second types of accident were nature of the road. This cause was contributing of 30.32% of total accident. Over load the third level. This cause was responsible for the death of 19.1% from the total. This cause was however over loading the other cause was care problem which killed about 24.42 %. The fourth level was captured by both error of pedestrian and standing the car suddenly from its place .These two cause share death each of from the total It contributes 22.9% from the total.

4.4 The role of government to overcome road traffic accident

There are different activities done by the government to overcome this problem such as government try to training different group of people and giving awareness by transferring information by media in the city. In different police station of the study area in the city they were four main police stations. Those station trained student, driver and populations.

Table 4.4.1 participant of student in the training

Number	Police station	Number of students	
		Male	Female
1	1St Police station	700	400
2	2nd police station	500	200
3	3rd police station	600	450
4	4rh police station	400	250

Source; Interview and Lafto sub city police traffic document analyzes 2022 and 2023

According to the above table 4.4.1 the government trends to 2200 male student and 1300 female student. Those were the secondary school, college and primary school student as whole participated. The first police station was trained 64.3% of male student and 35.7% of female student. The second police station was trained 71.1% of male student and 28.6% of female student. The third police station trained 57.1% of male student and 42.9% of female student. The fourth police station trained 63.5 of male students and 34.5 female students. Generally, the highest police station which police student first police station and the thread police station are which covered the second police stations trained high number of students.

Table 4.4.2 participant of driver in RTA training

Number	Police station	Bajaj and motor bicycle		Taxi driver		Minibus driver		Lorry driver	
		M	F	M	F	M	F	M	-
1	1ST Police station	20	1	112	-	98	-	7	-
	2nd police station	30	-	40	-	20	-	-	-
	3rd police station	120	-	25	10	10	-	8	-
	4rh	50	5	35	9	40		15	

Source; Interview and lafto traffic police document analysis 2022 and 2023

According to the above 4.4.2 table indicate that the government also trained of Bajaj, motor cycle driver, minibus driver and lorry driver. The training was given by fourth police stations of the city. In those stations the total participants of the driver in the training were account 719 driver. The first police station was trained the highest number of drivers and its ranked on the first and the second police station that drained the driver in less so its ranked on the third rank and the fourth rank.

CHAPTER FIVE

5. CONCLUSTION AND RECOMMENDATION

5.1. Conclusions

The results obtained throughout these assessments of road traffic accident police indicate that road traffic accident is serious problem in the lafto sub city. The numbers of road traffic have been shown an increase throughout study area and the rate of increase has risen rapidly. However, the cause was changeable from one year to another year. The same table express the different cause that were actuality cause the road traffic accident from 2020-2022. Road traffic accident in the sub city was summarized as follow, drivers were not give priority for pedestrian, over speed, nature of the road, car problem, error of pedestrian and using alcohol and drug are the major cause.

Road traffic by the level of prevalence of the road traffic accident was ranked as follow. There report of lafto traffic police document indicate that there are different records by the level of prevalence that means in the year of 2020 recorded 2601 road traffic accident. Second in the year of 2021 recorded 2870 and in the year 2022 recorded 3151 road traffic accident occurred. Therefore, up on the collected data, Nifas silk sub city has been experiencing a total of 8622 number of accidents were recorded within three years.

The government tries done some activity over came this problem such as government try to training different group of people in the city. In different police station of the study area in the city they were four main police stations. However, its role is not satisfactory.

5.2. Recommendations

Road traffic accident does not select place, gender and religious background etc. It happened in random base to due to carelessness of the driver and pedestrian, some problem of car and nature the road etc. In order to reduce its trend, the following recommendations can be taken implemented.

- Creating an awareness of the people by teaching traffic role and regulation through mass media, at idler, ikub and Kebele conference and also for student it should be given has one course or subject on their academic lesson in the curriculum. More over at religious ceremony.
- Driver license provision also has to be checked, sufficient driving training for drivers before and after license should be prepared for enhance driver skill through time.
- Government should increase number of traffic sign; zebra cross and speed control radar should also take attention and be place in an area where accident is happened.
- Penalizing the driver if they break rule, in order to feel responsibility for that driver.
- The government also should train and the expand the number of traffic police in the city order to minimize prevalence of road traffic accident.
- The road should expand to reducing the congestion of vehicle in the city.

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APPENDIX 1

WOLKITE UNIVERSITY

COLLEGE OF SOCIAL SCIENCE AND HUMANITY

DEPARTEMENT OF GEOGRAPHY AND ENVIROMENTAL STUDIES

QUESTIONNAIRE FOR PREVALENCE OF ROAD TRAFFIC ACCIDENT

First of all, the research wants to thanks for your willingness of fill this questionnaire. This questionnaire is prepared by fourth year geography and environmental studies graduated students.

The aim of this study is to assessment of road traffic accident in Lafto Sub city. Finally, the purpose of this study was give solution to this problem. So, you are kindly requested to give as a genuine information this questionnaire didn't have a right or wrong answer so you are expected to write your filling.

PART I- BACKGROUND INFORMATION

This part of the questionnaire is presented to assess your personal back ground.

1. Age: A. 19-29 B. 30-39 C. 40-49 D. >50

2. Sex: A. female B. male

3. Educational level: A. Illiterate B. Informal c. primary education D. secondary education E. Above secondary

4.Marital status: A. Married B. Unmarried C. divorce

Religion: A. Orthodox B. Protestant C. Muslim D. Other

PART II: QUESTINNAIRE FOR PARTICIPANTS

1. how many times happen road traffic accident in that area?

A. Most frequently B. frequently C. less frequently

2. In which time of a day road traffic accidents are highest

A. day time

B. night time

3. what is the level of prevalence of road traffic accident in this year?

A. high B. low C. medium

4. What are the major causes of Road traffic accident?

A. High speed driving C. lake of pedestrians' road E. driver using
B. Alcohols and drag D. the nature the of the road

5. which age groups is more affected by road traffic accident?

A. 7-13 B. 14-18 C. 19-31 D. 32-50 E. >51

5. In term of sex who are the most affected by road-traffic accident?

A. Male B. female

7. What is the role of government in reducing the prevalence of road traffic accident?

A. Medium B. Lower C. higher

8. Do you think the government is giving enough effort to solve the prevalence of road traffic accident?

A. Yes B. No

9. Is there any contribution to reducing the prevalence of road traffic accident from community?

   A. No B. Yes

10. If your answer for question number 10 is “yes” what is their contribution?

    A. They try to create awareness in their community member?
    B. They work with road traffic office by collaboration to reduce the problem?
    C. They practice properly the Rule and regulation

APPENDIX 2

Interview for key informants

1. What are the major causes of road traffic accident in Lafto sub city?

2. What Expected from government to minimize the prevalence of the road traffic accident in Lafto sub city?

3. what is the level of prevalence of road traffic accident in different years?