ROAD TRAFFIC ACCIDENT AND ITS IMPACT ON ECONOMIC DEVELOPMENT

(CASE STUDY 26 JUNE DISTRICT/HARGEISA)

BY

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HARGEISA SOMALILAND
Chapter One

1.0 Background

Accidents today are among the leading causes of death in some cases the number one cause in many parts of the world particularly the more highly industrialized nations (Miles, p. W. (1956). The number of minor as well as serious injuries and the human suffering and economic loss due to disabilities caused by accidents in incalculable rate.

Thus while medical science has conquered the ravages of many diseases, accidents have become a new epidemic of public health importance calling for equal effort for control and prevention.

Among all types of accidents in the home in places of work (e.g. mines and industries) at play (e.g. sports) and elsewhere those causes by motor vehicles’ claim the largest toll of life and tend to be the most serious. Miller, S. E, (1957). The present study of road traffic accidents by Dr. L.G Norman, chief medical officer of the London transport executive, us outgrowth of the interest in this problem that was aroused by the 1961 world health day with its theme, “accidents and their prevention” as the first in a series of studies that will deal with the various kinds of accidents from the epidemiological, etiological and preventive points of view, it is a review of the latest information on the subject, intended not only for public health authorities but for transport authorities, teachers, citizens, groups and the many other categories of workers concerned with the promotion of safety on the roads.

The problem of road traffic accident on a large scale has arisen for the first time in the present century. All other epidemics throughout history have been due to the onslaught of agencies external to man, principally the protozoa, bacteria, and viruses; but road accidents are caused by man himself.

1.1 Introduction

According to the World Health Organisation (WHO, 2004), approximately 16,000 people die every day worldwide from all types of injuries. Injuries represent about 12% of the global burden of disease, making injuries the third most important cause of overall mortality. Deaths from traffic injury are a very significant part of the problem accounting for 25% of all deaths from injury. The land transport sector encompasses the commercial use of many different vehicles including Lorries, light vans, taxis, buses, private cars being driven for work
purposes, company cars, construction and agricultural machinery, emergency service vehicles, motorcycles, mopeds and bicycles. The sector is dominated by small companies and male workers, although female employment is increasing, especially in certain areas such as bus drivers.

Road accidents impose substantial costs on society: in the United States over 41,821 people were killed in traffic accidents in 2000 and another 3.2 million were injured (US NHTSA 2001). In a widely cited study, Miller (1993) estimated that motor vehicle accidents cost the United States over $300 billion each year. Many of these costs are private (e.g., own injury risk to drivers), but others are external (e.g., pedestrian deaths); hence policies to reduce accidents are potentially justified on economic efficiency grounds. Such policies might be classified into those that reduce vehicle miles travelled (VMT), improve driver care (e.g., speed limits, penalties for drunk driving), improve vehicle safety (e.g., requirements for airbags and child seats), and improve road infrastructure (e.g., crash barriers). This paper focuses on policy approaches to reducing VMT.

In east Africa, Uganda is one of the East African countries with the highest rate of road accidents, a World Health Organisation report on road safety says.

The Global Status Report on Road Safety 2013 indicates that Uganda had 2,954 deaths in 2010 as a result of road accidents; Nigeria had 4,065 while South Africa registered the highest number at 13,768 by 2009.

“While Ethiopia, Kenya, and Tanzania have relatively low (for the region) (WHO report on road safety 2014) road fatality rates, Nigeria, South Africa, and Uganda combine big populations with very high fatality rates, resulting in large numbers of deaths,” the report says.

These countries must reduce their road deaths considerably if the region is to realise a significant reduction in deaths,” it adds.

However, in an interview with this newspaper on Friday, Kampala Metropolitan Traffic Police Commander, Mr Lawrence Niwabiine, said the statistics that were used in the report are old.

“According to last year’s 2014 Statistics Uganda had reduced accidents by 10 per cent and we expect to improve because we have now stepped up the enforcement of the law with the use
of (breathalysers: a device used by police for measuring the amount of alcohol in a driver’s breath) which will reduce accidents in urban centres.”

According to Somaliland many people die in traffic accidents on the road each year, with hundreds of people injured, vehicles damaged and properties lost in these accidents.

Most of the highways and roads in Somaliland are built long before Somaliland regained its independence in 1991 and are regarded as old fashioned and sometimes dangerous. Those roads were designed for using not more than ten or twenty years. Now, they are almost in bad conditions and pose a great danger to drivers, passengers and cars. The last year in Somaliland accident is 2687 over 130 people were killed in traffic accidents in 2014 and another 2096 were injured (The interview adviser bleating traffic: Faysal xiis)

1.2 Problem Statement

Viewing the great risks of traffic accidents in our country in general and particularly the capital city Hargeisa recently doubled due to the increase of traffic related problems which might harm the lives and the properties of the society including injuries, deaths, loss of properties, and other damages along with other economic costs. These problems can result great destructions in both human lives and economic development of the country as well.

1.3 Purpose of the study

The purpose of this study is to assess the rate of road traffic accidents, their main reasons and based on the findings recommend possible solutions by focusing on its impact on economic development.

1.4 Research objectives

The general objectives of this study was assess the overall impact of road traffic accidents on economic development

1.5 Specific objectives

1. To assess the causes and level of car accident in the Hargeisa city
2. To know the consequences of traffic accident on socio-economic development
3. To recommend relevant solutions based on the findings
1.6 Research questions

1. What are the causes and level of car accidents in Hargeisa city?
2. What is the consequences of traffic accidents on socio-economic development?
3. What possible recommendations help reduce car accidents and their impacts in Hargeisa?

1.7 Scope of the study

1.8 Geographical scope
This study was be conducted within Hargeisa district specially the case of traffic head quarter in Hargeisa Somaliland

1.9 Time Scope
The study was take (four) months, from March, 15 to June 18 2015

2.0 Significance of the study

This research was undertaken as an academic requirement by Admas University College before the degree of bachelor of development studies can be awarded the researcher placed prestige in the successful completion of the study.

There significances of this study was be in different parts including the flowing:-

1. Somaliland government

The research was provide data to policy makers and other related areas so that they come up with good policy that they can tackle the risks of the traffic accident in our country. Additionally, it outfitted the knowledge and capacitated the analysing ability of the researchers.

2. Local communities

Was benefit the result of the study because it’s important for them economically and socially in order to save their lives and their properties as well

3. Non- governmental organizations

The outcome of this study was benefit for the other non- governmental organization in order to contribute the larger society a lot in an efficient way
4. Academic and Future researchers

The result of this study was be benefited by the researchers in different ways such as referring to their future researches or they may use to reviewing the literature review of this study.
Chapter Two

Literature Review

2.1 Introduction

This chapter review relates literature on study variables as put forward by different scholars. The literature review is an account of previously published material by experts and researchers in a particular area of interest (Procter, 2004).

2.2 Global and Regional Trends of Road Traffic Accidents

According to WHO (2004), road traffic deaths have risen from approximately 999,000 in 1990 to just over 1.1 million in 2002. Low-income and middle-income countries account for the majority of this increase. Although the number of road traffic injuries has continued to rise in the world as a whole, time series analysis reveals that road traffic fatalities and mortality rates show clear differences in the pattern of growth between high-income countries, on the one hand, and low-income and middle-income countries on the other. In general, since the 1960s and 1970s, there has been a decrease in the numbers and rates of fatalities in high-income countries such as Australia, Canada, Germany, the Netherlands, Sweden, the United Kingdom (UK) and the United States of America. At the same time, there has been a pronounced rise in numbers and rates in many low-income and middle-income countries.

The trends are based on a limited number of countries for which data were available throughout the period and they are therefore influenced by the largest countries in the regional samples. Such regional trends could mask national trends and the data should not be extrapolated to the national level.

2.3 Causes of Road Traffic Accident

Road traffic crash results from a combination of factors related to the components of the system including roads, the setting, vehicles and road users, and the way they interact. Some factors contribute to the occurrence of a collision and are therefore part of crash causation. Other factors aggravate the effects of the collision and thus contribute to trauma severity. Some factors may not appear to be directly related to road traffic injuries. Some causes are immediate, but they may be underpinned by medium-term and long-term structural causes.
Identifying the risk factors that contribute to road traffic crashes is important in identifying interventions that can reduce the risks associated with those factors (Lisa, David et al. 2005). (By Girmay Giday books Kindaya Mekelle University)

2.3.1 Human Related Causes of Road Traffic Accident

Human factors are without doubt the most complex and difficult to separate, as they are virtually all very momentary in nature. What existed at the time of the crash may not exist some instants later. Consider sensory capabilities, knowledge, decision making, attitude, attentiveness, and fitness, health, driving skill, age, weight, strength and freedom of movement. Of these, the emotional dynamics are the greatest variable attributes and the most difficult to ascertain. They are also subject to the most adjustment with the least remaining evidence (Lisa, David et al. 2005). Human factors in vehicle collisions include all factors related to drivers and other road users that may contribute to a crash.

2.3.1.1 Non-Use of Seat-Belts

A significant number of lives could be saved every year by using seatbelts. Till these times many drivers are not realizing how much seat belts could save the lives of themselves and the life of their customers. What makes this fact more complex is that, although it is the worst in most of the developing countries of the world, it is a usual phenomenon in some most developed countries to see drivers with no use of seat belts while driving on public roads. WHO (2010) suggests that; In France, where the wearing rate is among the highest, it was estimated that, in 2007 if every passenger and driver had worn a seatbelt, 397 lives could have been saved (around 9% of total fatalities). Wearing a seat belt reduces the risk of a fatality by 40 – 50%. Another study by Lisa, David et al. (2005) shows that, not wearing a seatbelt is the most common cause of fatality which contributes to fatality among 63% of all vehicle occupants. In addition to this WHO (2004) have stated that Rates of seat-belt use vary greatly among different countries, depending upon the existence of laws mandating their fitting and use and the degree to which those laws are enforced.

2.3.1.2 The Use of Hand-Held Mobile Telephones

The use of mobile telephones while driving could result in unexpected RTA risks. WHO (2004) suspects that, the use of hand-held mobile telephones can adversely affect driver behavior – as regards physical as well as perceptual and decision-making tasks. The process of dialing influences a driver’s ability to keep to the course on the road.
2.3.1.3 Age of Drivers
The age of drivers affects to the behaviour of their driving styles and to the level of Driver’s attention. In similar sense (WHO 2004); Lisa, David et al. (2005) argued that Crash rates of male drivers aged 16–20 years were at least three times the estimated crash rate of male drivers aged 25 years and above. Teenagers are significantly more likely to be involved in a fatal crash than older drivers. At almost every blood alcohol level, the risk of crash casualty declines with increasing driver age and experience. In addition to this a study on drivers killed in road crashes estimated that teenage drivers had more than five times the risk of a crash compared with drivers aged 30 and beyond, at all levels. (By Girmay Giday books Kindaya Mekelle University)

2.4 Traffic accidents overview

Accidents today are among the leading causes of death in some cases the number one cause in many parts of the world particularly the more highly industrialized nations. The number of minor as well as serious injuries and the human suffering and economic loss due to disabilities caused by accidents in inestimable.

Thus while medical science has conquered the ravages of many diseases, accidents have become a new epidemic” of public health importance calling for equal effort for control and prevention.

Among all types of accidents in the home in places of work( e.g. mines and industries) at play (e.g. sports) and elsewhere those causes by motor vehicles’ claim the largest toll of life and tend to be the most serious. The present study of road traffic accidents by Dr.l.g Norman, chief medical officer of the London transport executive, us outgrowth of the interest in this problem that was aroused by the 1961 world health day with its theme, “accidents and their prevention” as the first in a series of studies that will deal with the various kinds of accidents from the epidemiological, etiological and preventive points of view, it is a review of the latest information on the subject, intended not only for public health authorities but for transport authorities, teachers, citizens, groups and the many other categories of workers concerned with the promotion of safety on the roads. The problem of road traffic accident on a large scale has arisen for the first time in the present century. All other epidemics throughout history have been due to the onslaught of agencies external to man, principally the protozoa bacteria and viruses but road accidents are caused by man himself.
2.5 Problems in defining and comparing levels of injury severity

In most countries, official road accident statistics make a distinction between three levels of injury severity: fatal serious and slight. In most countries, fatal injuries include all those who die within 30 days of the accident as a result of injuries sustained in the accident.

Correction factors have been developed and are applied to official statistics for countries that do not use the 30-day definition of a death. Official accident statistics often contain inaccuracies regarding the severity of the injuries and the severity of the crash. In the USA, 49% of the drivers coded by police as having incapacitating injuries actually had sustained no more than minor injuries, and 79% of the vehicles that crashed on roads posted at 60 mph or 96 km/h or higher experienced a delta-V (i.e. change in velocity) less than 25 mph or 40 km/h (Farmer, 2003). Safety studies depending on data from only police reports to establish injury or crash severity therefore could produce erroneous results.

Definitions of reportable injuries are often not very clear and not standardised. The definitions used in Norway are fairly typical and illustrate both the lack of clarity and the dilemmas faced in defining and classifying reportable injuries.

A reportable injury is defined as “an injury to a person, which is not inconsequential”. No further details are given. In Norway, injuries are classified into four levels by severity: fatal, critical, serious and slight. A fatal injury is defined according to the usual 30-day rule. A critical injury is defined as follows: “Any injury that is, at some time, life-threatening, or that results in permanent impairment”. No formal definitions are given of serious or slight injuries. Serious injuries are defined by listing examples of types of injury that are regarded as serious, such as “some damage to kidneys”, or “fractures of arms or legs that need surgical treatment”. Slight injuries are likewise defined by listing examples such as “uncomplicated fractures that do not need surgical treatment and will usually not require an overnight stay in hospital”.

To apply these definitions at an accident scene is impossible since a police officer has no medical training to determine if an injury is life-threatening or will result in permanent impairment. Similarly, many life-threatening injuries such as injuries to abdominal organs cannot be observed at the scene and require clinical diagnosis in hospital.

In Norway, the police have almost ceased using the “critical” category. The definition of this level of injury severity illustrates the dilemma one faces in trying to define injury severity. Should injury severity be defined in terms of how life-threatening an injury is, or in terms of its lasting impact?
A more reasonable approach for police reporting systems would be to abandon using the highly-subjective categories of “critical”, “serious” and “slight” injuries and adopt a simple injury scale (SIS) that is linked with the globally-accepted Abbreviated Injury Scale (AIS) used in trauma hospitals for assessing injury severity. An SIS would pre-assign a numerical severity ranking to anatomically-described injuries that are observable at the scene. While such a simple scale would not be able to capture injuries diagnosed in hospital, the severity assessment of the injuries that are observable in the field would be standardised across the police and would be linked to the currently most-used clinical trauma scale in the world. An SIS could also be adapted for use by first responders such as emergency service personnel and paramedics.

The Abbreviated Injury Scale (AIS) describes injuries on a 6-point numerical scale in terms of threat to life and tissue damage. Thus, an AIS 1 (minor) injury does not pose a threat to survival, whereas survival is highly uncertain in the case of an AIS 5 (critical) injury. Another injury scale, the Injury Severity Score (ISS) provides a numerical scale (from 1 to 75) that uses three injuries with the highest severity in three different body regions to measure the overall severity where a score of 75 is, for all intents and purposes, non-survivable (Baker et al 1971). A New ISS has been proposed which uses three of the most severe injuries anywhere in the body to calculate an ISS score (NISS; Osler et al 1997).

Not all life-threatening injuries result in permanent impairment. A ruptured spleen, which is associated with heavy internal bleeding, will not result in any lasting impairment if treated successfully. A spinal cord injury, on the other hand, may leave a person in a wheelchair for life, although the injury as such may not be life-threatening. The loss of part of a finger is also a permanent impairment, although the injury itself may be regarded as trivial (albeit painful).

Vision Zero is widely known and widely supported as an ideal for transport safety. According to Vision Zero, a safe transport system should not lead to fatal injuries or injuries that result in permanent impairment. If the definition of injury severity takes guidance from Vision Zero, both threat-to-life injuries and injuries that result in permanent impairment must be considered more serious than any injury that heals completely.

There are, however, two problems associated with defining injury severity in terms of the long-term impact of an injury. First, long-term impact cannot be observed at an accident scene or even at hospital admission in some cases; hence, final classification of injuries by severity may have to be postponed for a long time, at least several months. Second, a precise definition is needed of what constitutes a permanent impairment. Loss of limb or losses of
function are impairments, but more subtle psychological impacts of accidents may not be so obvious. For example, are recurring nightmares or problems in concentration a permanent impairment? Careful attention needs to be paid to these issues in developing operational definitions of lasting impairment. A different means to categorise injury would need to be devised in order to provide better linkage between crash and injury information. For example, an outcome scale such as the following might be useful: died, hospital admission, transported/treated in emergency department/released, slightly injured (not admitted but linked to an insurance claim), not injured (reported as either possible or no injury, but no link with any medical record). Such a scheme could be particularly effective in identifying the “uninjured” category. Obviously, adequate personnel would need to be trained at both national and EU levels to ensure competence in linking and managing the data system.

One of the most important outputs of a linked data system is to provide feedback especially to policy makers in both the public and private sectors who will ultimately decide on the efficacy of such a system and its continued funding. Providing policy makers with timely, valid, verifiable results on how the system is working and what it can offer to the highway safety community is fundamental.

The conclusion is that a national linked dataset of road traffic crash data should be produced from hospital admissions and police road traffic accidents data for use by policymakers, researchers, planners and practitioners.

Somaliland is facing traffic issues and that many people in our beloved country don't know the rules of the road or the cause of accidents, and that unmaintained roads are a factor but not the main issue and there more important factors to the cause of an automobile accident, and I am an expert on traffic rules and road safety and I will give my expertise on this matter.

Accidents leads to negligence of the driver and in the case in Somaliland not only negligence of the driver that causes the accident, but the lack of driving or the knowledge of the rules of the road or not following the rules and don't have any clue about the rules of the road. Speeding is a major factor that leads to road fatalities in Somaliland, distracting driving like using a mobile phone will driving, texting while driving , adjusting the radio, cd player, cassette player, MP3 player, reading a newspaper and looking at a scenery. Hargeisa and all over Somaliland one of the leads of accidents are aggressive driving road rage which results from tailgating, meaning following to closely, cutting of the driver, not signalling and not letting the driver pass you, and passing the turning driver with the signal on the wrong side of the road risking yourself pedestrians and the turning driver, and reckless driving which
happens in Hargeisa that one car is speeding and passes the other cars and turns into his or her destination and that is not proper driving and there are many bad driving habits in Hargeisa.

2.6 Impacts of Road Traffic Accident

All countries in the world are currently affected by RTA. Although the effects of RTA vary from one country to the other, from nation to nation, it should be every body’s concern. Some of the major impacts of RTA discussed by different organizations and scholars are conversed in the following sub-sections. (By Girmay Giday books Kindaya Mekelle University)

2.6.1 Economic Impact

Road traffic accidents are currently deteriorating the financial wealth of many nations. In this regard, (WHO 2004); Naci, Chisolm et al. (2008) urges that, in economic terms, the cost of road crash injuries is estimated at roughly 1% of Gross National Product (GNP) in low-income countries, 1.5% in middle-income countries and 2% in high-income countries. The direct economic costs of global road crashes have been estimated at US$ 518 billion, with the costs in low-income countries – estimated at US$ 65 billion – exceeding the total annual amount received in development assistance. In addition to this, in terms of regional disparities of cost of RTA Naci, Chisolm et al.

2.6.2 Social Impact

The RTA impacts are also shown with their influence on the social aspects of the livelihood. To this regard, WHO (2004) claims that, over 50% of the global mortality due to road traffic injury occurs among young adults aged between 15 and 44 years, and the rates for this age group are higher in low-income and middle-income countries. In 2002, males accounted for 73% of all road traffic deaths, with an overall rate almost three times that for females: 27.6 per 100,000 population and 10.4 per 100,000 population, correspondingly. Road traffic mortality rates are higher in men than in women in all regions regardless of income level, and also across all age groups. On average, males in the low-income and middle-income countries of the WHO Africa Region and the WHO Eastern Mediterranean Region have the highest road traffic injury mortality rates worldwide. The gender difference in mortality rates is probably related to both exposure and risk-taking behaviour. (By Girmay Giday books Kindaya Mekelle University)
2.7 Costs to society of traffic injury
There have been several reviews of the costs to society of road traffic injury. A major review was presented in 1994 by the European Commission: “Socio-economic cost of road accidents, final report of action COST 313” (Alfaro, Chapuis and Fabre, 1994). This report is now more than 10 years old. A more recent survey was made as part of the ROSEBUD-project (de Blaeij et al 2004). This survey first considered methods used in estimating the costs to society of traffic injury, then presented recent cost estimates for selected countries. As far as methods for estimating costs are concerned, the typology shown in Figure 2 was developed in COST-313. The costs of restitution are the direct costs generated by road accidents (for example, medical costs, property damage or administrative costs). Generally speaking, the human capital approach is used to estimate the value of lost productive capacity due to a traffic death, whereas the willingness-to-pay approach is used to estimate the value of lost quality of life. Two varieties of the willingness-to-pay approach are normally used: the individual willingness-to-pay approach and the social willingness-to-pay approach. According to the former approach, information about willingness-to-pay is obtained from individuals, either by studying behaviour in situations where reduced risk must be traded off against other commodities or by means of questionnaires. According to the latter approach, society’s willingness-to-pay for reduced risk is inferred from the valuation implicit in public decisions like setting speed limits. More information on the different costing methods is given by Trawen et al. (2001), Wesemann (2000) and de Blaeij et al (2004).

2.8 Meaning of Economic Development
Economic development is a process whereby an economy's real national income as well as per capita income increases over a long period of time. Here, the process implies the impact of certain forces which operate over a long period and embody changes in dynamic elements. It contains changes in resource supplies, in the rate of capital formation, in demographic composition, in technology, skills and efficiency, in institutional and organisational set-up. It also implies respective changes in the structure of demand for goods, in the level and pattern of income distribution, in size and composition of population, in consumption habits and living standards, and in the pattern of social relationships and religious dogmas, ideas and institutions. In short, economic development is a process consisting of a long chain of inter-related changes in fundamental factors of supply and in the structure of demand, leading to a risen the net national product of a country in the long run.
2.9 Definitions of Economic Development

The term 'economic development' is generally used in many other synonymous terms such as economic growth, economic welfare, secular change, Development and Environmental Economics, social justice, and economic progress. As such, it is not easy to give any precise and clear definition of economic development. But in view of its scientific study and its popularity, a working definition of the term seems to be quite essential.

Economic development, as it is now generally understood, includes the development of agriculture, industry, trade, transport, means of irrigation, power resources, etc. It, thus, indicates a process of development. The sectoral improvement is the part of the process of development which refers to the economic development. Broadly speaking, economic development has been defined in different ways and as such it is difficult to locate any single definition which may be regarded entirely satisfactory.

1. Prof. Meier and Baldwin

According to Prof. Meier and Baldwin; "Economic development is a process whereby an economy's real national income increases over a long period of time”. This definition explains three ingredients of economic development. a) Process, b) real national income, c) long period. The discussion of these three factors would help in understanding the concept of economic development.

2. Benard Okun and Richard W. Richardson

According to Benard Okun and Richard W. Richardson, "Economic development may be defined as a sustained secular improvement in wellbeing, which may be considered to be reflected in an increasing flow of goods and services”.

Prof. Colin Clark

Prof. Colin Clark defines economic development from the angle of economic welfare. In his own words, "Economic progress can be defined simply as an improvement in economic welfare.” Economic welfare, following pigeon can be defined in the first instance as an abundance of all those goods and services which are customarily exchanged for money. Leisure is an element in economic welfare and more precisely: "We can define economic progress as the attaining of an increasing output of those goods and services for a minimum expenditure of effort, and of other scarce resources, both natural and artificial”

Economic Development

Readers and viewers should grasp the essential ideas and principles of economic development. After this, are going to be economic issues and development ways that’s applied during this article. Future half is development policies and programs that has
one thing to try and do with financial and monetary policies in. it'll be discovered as a method for an economic coming up with towards developmental model. Last however not the smallest amount, are going to be the most important problems in economic development (Published by: Kujhons759 on Jun 26, 2012)

2.9.1 Economic growth versus economic development

Refers to social and technological progress. It implies a change in the way goods and services are produced, not merely an increase in production achieved using the old methods of production on a wider scale. Economic growth implies only an increase in quantitative output; it may or may not involve development. Economic growth is often measured by rate of change of gross domestic product (eg percent GDP increase per year.) Gross domestic product is the aggregate value-added by the economic activity within a country's borders.

Economic development typically involves improvements in a variety of indicators such as literacy rates, life expectancy, and poverty rates. GDP does not take into account important aspects such as leisure time, environmental quality, freedom, or social justice; alternative measures of economic wellbeing have been proposed.

A country's economic development is related to its human development, which encompasses, among other things, health and education. (Published by: Muhammad ullah on Dec 18, 2009)

2.9.2 Intensive versus extensive growth

A closely related idea is the difference between extensive and intensive economic growth. Extensive growth is growth achieved by using more resources (land, labour and capital). Intensive growth is growth achieved by using a given amount of resources more efficiently (productively). Intensive growth requires development. (Published by: Muhammadullah on Dec 18, 2009)

2.9.3 Regional policy

In its broadest sense, policies of economic development encompass three major areas:

- Governments undertaking to meet broad economic objectives such as price stability, high employment, and sustainable growth. Such efforts include monetary and fiscal policies, regulation of financial institutions, trade, and tax policies.
Programs that provide infrastructure and services such as highways, parks, affordable housing, crime prevention, and K–12 education.

Job creation and retention through specific efforts in business finance, marketing, neighbourhood development, small business development, business retention and expansion, technology transfer, and real estate development. This third category is a primary focus of economic development professionals. (Published by: Muhammad ullah on Dec 18, 2009)

2.10 Road traffic accidents

Far been given to safety factors in the vehicle itself a problem that is now increasingly engaging the attention of manufacture. It may be postulated straight away that the great majority of road accidents are preventable, but considerable increase in community effort will have to be made if prevention is to become effective.

It is interesting to note that a somewhat similar problem in the nineteenth century during the early development of railways. After (William Huskisson) former president of the board of trade of Great Britain was killed by train at the opening of the Manchester and Liverpool railway in 1830, railway track were segregated from all other traffic, including pedestrians.

This would appear to be the safest line of developments for the handling of motor traffic, particularly in built up areas and on main roads, where there are the heaviest volumes of motor transport.

Ritchie, in 1846 analysed the cause of railway accidents and made proposals for their prevention several of suggestion have since become standard practice. Because road traffic accidents have grown to their present numbers only during the twentieth century traditional methods have generally been applied to deal with them coroners inquests or similar investigation of the cause of death police inquiries on liability compensation for personal injury and damage to property. But no one administrative authority is charged with the business of prevention although many national and local voluntary safety councils and committees automobile associations and other voluntary bodies often with government support have made and continue to make a considerable contribution to road safety.
2.11 Road safety as a public health issue

Traditionally, road safety has been assumed to be the responsibility of the transport sector. In the early 1960s many developed countries set up traffic safety agencies, usually located within a government’s transport department. In general, however, the public health sector was slow to become involved.

But road traffic injuries are indeed a major public health issue, and not just an offshoot of vehicular mobility. The health sector would greatly benefit from better road injury prevention in terms of fewer hospital admissions and a reduced severity of injuries. It would also be to the health sector’s gain if – with safer conditions on the roads guaranteed for pedestrians and cyclists – more people were to adopt the healthier lifestyle of walking or cycling, without fearing for their safety. The public health approach to road traffic injury prevention is based on science. It draws on knowledge from medicine, biomechanics, epidemiology, sociology, behavioural science, criminology, education, economics, engineering and other disciplines.

While the health sector is only one of many bodies involved in road safety, it has important roles to play. These include:

• discovering, through injury surveillance and surveys, as much as possible about all aspects of road crash injury by systematically collecting data on the magnitude scope characteristics and consequences of road traffic crashes.
• researching the causes of traffic crashes and injuries, and in doing so trying to determine:
  ➢ causes and correlates of road crash injury,
  ➢ factors that increase or decrease risk,
  ➢ Factors that might be modifiable through interventions;
• exploring ways to prevent and reduce the severity of injuries in road crashes by designing, Road crash injury is largely preventable and predictable it is a human-made problem amenable to rational analysis and countermeasure Road safety is a multispectral issue and a public health issue all sectors, including health; need to be fully engaged in responsibility, activity and advocacy for road crash injury prevention Common driving errors and common pedestrian behaviour should not lead to death and serious injury the traffic system should help users to cope with increasingly demanding conditions The vulnerability of the human body should be a limiting design parameter for the traffic system and speed management is central Road crash injury is a social equity issue equal protection to all road users should be aimed for since non-motor vehicle users bear a disproportionate share of road injury and risk technology transfer from high-income to low-income countries needs to fit local conditions
and should address research-based local needs Local knowledge needs to inform the implementation of local solutions

2.12 Psychological consequences of traffic accidents and economic impact on society

A proportion of persons being involved in transport-related incidents develop psychological symptoms. In its most severe form this is described as PTSD (post-traumatic stress disorder) and can cause a high grade of impairment in everyday life for those affected. The incidence does not seem to be correlated with the severity of the actual injury, but rather with the perceived subjective threat to life.

Even though most quality of life scales take into account social relationships and psychological well-being, specific scales to describe psychosocial outcome as well as scales describing the influence of a certain event to the well-being of an affected individual have been developed. The Impact of event scale (IES) is one example of such a scale. Post-traumatic stress disorder (PTSD), described in DSM-IV (Diagnostic and statistical manual of mental disorders), is characterised by intrusive thoughts and memories, avoidance and hyper arousal after exposure to a life-threatening situation or a severe life event. Several studies have shown that traffic accidents are a common cause of post-traumatic stress disorder (PTSD). Ursano et al, (1999) and Bryant et al (2004) found a prevalence of 25% PTSD three months and 18% six months after the traffic accident. PTSD seems to be an important psychological consequence of accidents with motorised vehicles. Most studies involve populations of patients selected according to the kind of injury caused by the accident, e.g. an orthopaedic trauma (Starr et al, 2004), a spinal cord trauma (Nielsen 2003) or a brain trauma (Harvey 2000).

The severity of the trauma, the perceived threat and dissociation during the accident are, according to Ehlers et al (1998), related to the development of chronic PTSD. The authors found that women, people with previous emotional problems and people who were involved, were more likely to develop chronic PTSD. According to Ehlers and her colleagues, negative interpretations of intrusions, continuing medical problems and rumination three months after the trauma are the most important predictors of PTSD after one year.

A previous trauma does not seem to be a risk factor (Ursano et al, 1999), although a previous episode of PTSD does. Richmond et al (2000) identified four variables that were important in the prediction of psychological distress after a serious injury, namely increased levels of psychological distress during hospitalisation, a positive screen for drugs and alcohol at the
time of the injury, young age and the lack of anticipation of possible problems that can occur with when resuming normal activities. Zatzick et al (2002) examined 101 surgical inpatients and found that 73% perceived a high level of psychological stress and/or were positive for intoxication with stimulants. One, four and twelve months after the injury, 30 to 40% of the patients reported symptoms of PTSD. Severe symptoms in the beginning were the strongest predictor of continuing PTSD-symptoms during the following year. This suggests that one can assess predictors of PTSD from the moment of hospitalisation and thus allow early assessment for referral into psychiatric care.

Little is known about the economic impact of PTSD following a traffic accident. Matthews (2005) followed 46 individuals eight months after a traffic accident. The participants with PTSD had significantly more problems to return to work than those without PTSD, including higher levels of depression, reduced time-management ability and an excessive concern or anxiety related to physical injuries. The individuals with PTSD reported also a significantly higher extrinsic motivation to work than those without PTSD. According to the author, this can indicate a need for financial stability and therefore a potential for therapeutic value in return to work post trauma.

In summary, the majority of studies on psychosocial residual states following traffic accidents are retrospective. Most studies concern individuals who have sought treatment following traffic accidents. As a result of this, knowledge regarding the incidence and severity of psychosocial residual states is scarce when it comes to individuals with mild somatic injuries or no injuries. A large portion of the literature discusses psychological residual states in the form of PTSD, but studies of social consequences are few.

2.13 Definition

Road Traffic Accident is any vehicle accident occurring in a public highway. It includes collision between vehicles and animals, vehicles and pedestrians or vehicles and stuck obstacles. Single vehicle accidents that involve a single vehicle, which means without other road user, are also enclosed (Safecarguide 2004). In a similar manner Ajit and Ripunjoy (2004), have mentioned that Accident is an occasion, occurring abruptly, unpredictably and inadvertently under unforeseen circumstances Roads: a wide way leading from one place to another, especially one with a specially prepared surface that vehicle can use

Traffic: vehicles moving on a road or public highway Accidents: an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury.
CHAPTER THREE
RESEARCH METHODS

3.0 Introduction

This chapter describes the systematic process by which the study was conduct. It discusses the research design and methodology of the study the chapter also explains the sample design, study population sampling methods and techniques, sampling procedures, data collection instruments and data analysis.

3.1 Research Design

This study was follow descriptive Correlation design which is the significant relationship between the independent variable.

The research applied both quantitative and qualitative methods in order to obtain a holistic insight into the objectives of the study the exploratory nature of the study made necessary a qualitative approach in order to obtain the perceptions and feelings of participants’ and the underlying issues in quantitative approach the study used questionnaires which were directed to a sample of the target population.

3.2 Research Population

The 26june district population is 2400and the study targeted traffic authorities, drivers, victims, Hargeisa group hospital and other related agencies whom are working the accident related works, in order to find out a real data which was use the research and as well as to achieve the objectives of the study.

3.3 Sampling Procedures

This research was conducted both probability and non-probability sampling, probability sampling the research will use purposive sampling. And non-probability sampling Research was conducted purposive sampling by giving some of them a special range or criteria of the people during research data collection such as preferring people with injuries or damaged their cars.

3.4 Sample size

Data was be collected from 40 respondents selected from target population of 2400 in the study population.
Table 3.1: Respondent of the study

<table>
<thead>
<tr>
<th>Category</th>
<th>Target population</th>
<th>Sampling techniques</th>
<th>Type of Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic authorities</td>
<td>5</td>
<td>Purposive based on their level</td>
<td>Interview</td>
</tr>
<tr>
<td>Drivers above 5</td>
<td>10</td>
<td>Purposive</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Drivers below 5</td>
<td>10</td>
<td>Purposive</td>
<td>Questionnaire</td>
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<tr>
<td>Hospital</td>
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<td>Purposive secondary data</td>
<td>Interview</td>
</tr>
<tr>
<td>Victims</td>
<td>7</td>
<td>Purposive based on their willingness</td>
<td>Interview</td>
</tr>
<tr>
<td>Garages</td>
<td>3</td>
<td>Purposive based on their size</td>
<td>observation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>Then systematic</strong></td>
<td></td>
</tr>
</tbody>
</table>

3.5 Data Collection Methods

The study was use different types of data collection methods including questionnaires, interviews and observations in order to collect a valid and reliable data that the study used so that it was come up with a new findings which can benefit for the society and other related stakeholders of the study.

A questionnaire is a written set of questions to which respondents record their answers usually within rather closely defined alternatives the questionnaire was used on the basis that the variables under study cannot be observed for instance the views opinions perceptions and feelings of the respondents. The questionnaire was equally used because the information had to be collected from a large sample in a short period of time yet the respondents’ could read and write (Sekaran 2003). Garages was use observation method for collecting data also questionnaires was use for hospitals, traffic police man and injured people.
3.6 Validity

Validity refers to the extent to which a given instrument can accurately measure what it is used to measure, so the study will use a valid instruments which are proper to the data that the study needs and it’s tested based on the judgments of the experts and other experienced people so based on that the instruments of the study will use is valid.

3.7 Reliability

The instrument was also check for reliability which is the degree to which the instrument matches whatever it is measuring. Pre-test and re-test was use on questionnaires; one group of the students. According to the level of reliability was be judged on percentage of validity among the data collected from respondents. And the validity level was be 0.75%.

3.8 Data analysis

During the data analysis the study was use SPSS for analysis of the data; in general SPSS is a Windows based program that can be used to perform data entry and analysis and to create tables and graphs
Chapter four
Data analysis, data presentation and interpretations

4.0 Introduction

This chapter organizes the position of the data collected, analysis and interpretation of the findings. The study was assessed the level of car accidents and their consequences on socio-economic development of the selected area.

4.1 Data presentation

Fig 4.1 the selected respondents and their age differences

Source: primary data

Fig 4.1 shows this figure the age group of respondents, their percentage and majority was in between 36-45

Q2: Gender of respondents

Fig: 4.2 the selected respondents and their gender type
Source: primary data

Fig 4.2 Show this figure the gender of respondents their percentage and majority was male.

Q3. Respondents by educational level

Fig 4.3 the respondents and their educational level

Source: primary data

Fig 4.2 this figure deals the respondents educational level, having been analysed the responses received from the respondents and 40% were levels is secondary.
Q4: how long have you been driving cars?

Fig 4.3 the selected respondents and their responses

Source: primary data

Fig 4.3 shows us drivers and their difference of driving experiences, which we can get here whether the driver is more responsible and experienced for this type of skill which can also decrease the accidents of the cars based on their knowledge’s towards driving cars.

Furthermore this criterion is not the only indicator that shows us drivers and their experiences.

Q5: what kind of training you have obtained along your career?

Fig 4.4 the selected respondents and their responses
Trainings are one of the important agents that can improve the knowledge’s of the drivers including the instructions, road signs, and other special practices that the full driver needs to know in order to be a responsible driver and obey the rules and regulations in a safer way. According to the interview there are other type of trainings which the drivers are not having enough experience to cope with the driving skill.

Q6: According to your experience what are the key causative agents of the accidents?

According to your experience what are the key causative agents of the accidents from the selected respondents and their responses:

Source: primary data

Fig 4.5 shows us some of the causative agents of the accidents, which are mostly cause the accidents according to the statistics of the traffic authorities, recent accidents shows that the most important causative agents are chewing qat, unlimited speed, and lack of trainings that the drivers to determine whether they choose the right decisions or not.

Q7: How the damage of accident can affect your economic status?

Fig 4.6 the select respondent and their response
Source: primary data

Fig 4.6 shows us the level of damages that is caused by the accidents in the different aspects of life specially economic aspects of the society, in addition to that damages caused by the accidents are classified property damages, loss of life, economic downgrades which dramatically increase the level of damages and their impacts on to the societies life in a way that they can lost the different aspects of life.

Q8: the skilled traffic personnel can decrease the level of car accidents?

Source: primary data

Fig 4.7 indicates us that the skilled traffics can decrease the level of car accidents because they know the rules and regulations to flow but this is not the only factor which we tackle decreasing the accidents according to the interview allot of respondents were responded that this is one of the important agent of decreasing the accidents.
Q9: at what extent that the qualified drivers can decrease the car accidents?

Fig 4.8 the select respondent and their responses

at what extant that the qualified drivers can decrease the car accidents

Source: primary data

Fig 4.8 shows us the extent of qualified drivers can decrease the level of accidents in the study area, hence majority of the respondents responded that the role of qualified drives is very high, furthermore this factor is simply one of the techniques to tackle the accidents but according to the interview only one factor cannot decrease the level of car accident in general putting all the factors in practice can decrease the accidents.

Q10: what are the key causes of road accidents?

Fig 4.9 the select respondent and their responses
Source: primary data

Fig 4.9 suggests us some of the causes of road accidents specifically, but according to the interview there are allot of other causative agents of road accidents including poor drivers experiences, overcrowded roads, drags, chewing qat and other related issues.

Q11: was your vehicle damage because of an accident?

Source: primary data

Q11: Is your damage beyond economical repair?

Source primary data

Fig 4.11 the select respondent and their responses

Source: Primary data

Figure 4.11 shown above, the majority of respondents responded the damage of their car is beyond economic repair, while some other respondents responded that they can afford the damages of their cars, therefore this result shows us that most of the accident damages are beyond the repair of the owners in terms of the great loss and other sudden expenses.
Q12: what type of cars is always used in Somaliland?

Figure 4.12 the select respondent and their responses

Source primary data

Fig 4.12 indicates us, the type of cars always used in Somaliland is left handed cars, the majority of the respondents responded while some of the respondents said cars used in Somaliland is right handed, left and right are used in Somaliland. This shows us that most of the cars in Somaliland is left handed, which in turn means that the way Somaliland roads are different when it compared to car types. The car driver is in left while he is driving in the right way.

Q13: do you agree that improving the road signs can decrease the level of Accidents?
Source: primary data

Figure 4.13 Most of the respondents are strongly agree that improving the road signs can decrease the level of accidents which is too much in Somaliland while some of the respondents responded disagree road sign improvement. Road signs are an important part of road safety and protection from serious accidents and car crashes which cause live and economic lost.

Q14: What kinds of impact are always resulted the accidents?

Figure 4.14 the select respondent and their responses

Source: primary data

Fig4.14 the majority of the respondents responded that the most accident impacts cause economic loss but not only the economy but there are other sectors which the accidents affect either directly or indirectly including property loss, loss of life, poverty and other related issues.

4.15: Summary of Interview for the traffic authorities

According to the response of the traffic authorities, there are allot of accidents happened the country each year and they are mostly happened the capital city of Hargeisa which results allot of impacts for both the social and economic aspects of life in different way.
Basically there are different measures that the traffic authorities use in order to minimize the risks of the accidents so that they can easily manage the accidents before it happened, and also decrease the level of accidents in the country as well which is dramatically increase the last 10 years.

Finally they recommended that the drivers should use rules and regulations which can help them to save the people and their life’s as well, and also the government should improve the road conditions and their signs.

4.16: Summary of Interview for victims

Based on the response of the victims there are different injuries that the victims are suffered based on severity of the accident, most of the victims responded that the problem is not only the poor road conditions but also there are different other causes of the accidents including irresponsible drivers, lack of strong rules and regulations and many other things which mostly contribute the accidents.

Moreover there are also another causative agents that increase the level of accidents in the country including a great number of cars coming from the country and the poor road conditions and congestions, and these problems can also cause a lot of accidents in capital city of Hargeisa for both now and the future, when we come to the side of hospital, the hospital did not serve all the victims because of the capacity of the hospital in different ways for example there are special cases that the hospital cannot do anything and so on.

4.17: Summary of Interview for Hargeisa group hospital

According to the result of the interview for the hospital authorities they said they get allot of cases which also need different services, but most of the cases are solved based on the severity of the accidents, only the hospital give the victims all the services without any external help but when we receive an special cases which we cannot solve in the hospital.

Lastly we recommend the drivers and the traffic authorities should work together in order to minimize the accidents, and the government agents for the roads should also improve the road conditions, road signs and other needed policy to minimize the accidents.
CHAPTER FIVE

5.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the discussion of results, draws conclusions according to the findings on each of the study objective and gives recommendations based on research objectives.

5.1 Research objectives (Revisited)

1. To assess the level of car accidents in Hargeisa city
2. To know the consequences of traffic accidents on socio-economic development
3. To recommend the relevant solution based on the findings

5.2 Research questions (Revisited)

1. What are the causes and level of car accident in Hargeisa city?
2. What are the consequences of traffic accidents on socio-economic development?
3. What are the possible recommendations to reduce the car accident and their impact in Hargeisa city?

5.3 Discussion

Accidents today are among the leading causes of death in some cases the number one cause in many parts of the world particularly the more highly industrialized nations. The number of minor as well as serious injuries and the human suffering, economic loss due to disabilities caused by accidents is immeasurable.

In addition to that car accidents are one of the deadly accidents in most of the developing countries especially in Somaliland and particularly in Hargeisa city, and they resulted in different effects of socio-economic development.

Objective 1 to assess the cause and level of car accidents in Hargeisa city

According to the findings of the study, the study was found out that there are different causes of car accidents which can result a great losses of life and other destructions of other social and economic aspects in life including poor road infrastructures, unqualified drivers, left hander cars and others whom are facilitating the accidents in one way or another.

Based on the findings of the study the level of car accidents in Hargeisa city is very high especially recent years which results allot of destructions for both social and economic problems.

Objective 2 to know the consequences of traffic accidents on social economic development

Based on the findings of the study, the study was found out that there is a great consequences that the accidents result on all social aspects especially the economic development which
plays a vital role in the society’s development, because they lost their life’s, property and other valuable things that they develop their life and their country as well.

**Objective 3 to recommended relevant solution based on the findings**

According to the findings of the study, the study was found out and recommend after the result of the study some relevant solutions which can contribute the decreasing of those highly increased car accidents in the study area including improving the road conditions, tightening the traffic rules and regulations, training both traffics and drivers in order to minimize the risks and the level of car accidents in Hargeisa city for both now and the future as well.

**5.4 Conclusions**

Road traffic crashes are predictable and therefore preventable. In order to combat the problem, though, there needs to be close coordination and collaboration, using a holistic and integrated approach, across many sectors and many disciplines.

While there are many interventions that can save lives and limbs, political will and commitment are essential and without them little can be achieved. The time to act is now.

Road users everywhere deserve better and safer road travel.

In addition to that road traffic injuries are a huge public health and development problem, killing almost 1.2 million people a year and injuring or disabling between 1071 thousands and 2050 thousands more. Both WHO and World Bank data show that, without appropriate action, these injuries will rise dramatically in the future, particularly in rapidly-motorizing countries.

Many countries have no injury surveillance systems that generate reliable data on road traffic crashes and injuries. Indicators, especially for non-fatal outcomes, may not be standardized, making comparisons difficult.

Any road traffic system is highly complex and hazardous to human health. Elements of the system include motor vehicles, roads and road users, and their physical, social and economic environments. Making a road traffic system data are needed to provide a solid foundation for road safety planning and decision-making.

Establishing simple, cost-effective injury surveillance systems is an important step towards improving road safety. However, the lack of reliable data should not impede immediate action.
5.5 Recommendations

1. **Identify a lead agency in government to guide the national road traffic safety effort**

Each country needs a lead agency on road safety, with the authority and responsibility to make decisions, control resources and coordinate efforts by all sectors of government including those of health, transport, education and the police. This agency should have adequate finances to use for road safety, and should be publicly accountable for its actions.

2. **Prepare a national road safety strategy and plan of action**

Each country should prepare a road safety strategy that is multi spectral involving agencies concerned with transport, health, education, law enforcement and other relevant sectors and multidisciplinary involving road safety scientists, engineers, urban and regional planners, health professionals and others.

3. **Allocate financial and human resources to address the problem.**

Well-targeted investment of financial and human resources can reduce road traffic injuries and deaths considerably. Information from other countries on their experience with various interventions can help a government in assessing the costs against the benefits of specific interventions and set priorities based on which interventions are likely to be the best investment of scarce financial and human resources.

4. **Implement specific actions to prevent road traffic crashes, minimize injuries and their consequences and evaluate the impact of these actions**

Specific actions are needed to prevent road traffic crashes and to minimize their consequences.

These actions should be based on sound evidence and analysis of road traffic injuries, be culturally appropriate and tested locally, and form part of the national strategy to address the problem of road crashes.

5. **Assess the problem, policies and institutional settings relating to road traffic injury and the capacity for road traffic injury prevention in each country.**

An important element in dealing with road safety is ascertaining the magnitude and characteristics of the problem, as well as the policies, institutional arrangements and capacity within the country to deal with road traffic injuries. This includes an understanding not only of the volume of traffic deaths, injuries and crashes, but also of which road users are most affected; in which geographic areas the greatest problems are found; what risk factors are contributing; what road safety policies, programmes and specific interventions are in place;
what institutional structures are addressing the road traffic injury problem; and what their
capacity is. Intermediate outcome measures such as mean speeds, rates of seat-belt wearing,
and rates of helmet wearing can also be useful and can be obtained through simple surveys.
5.6 References

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By Girmay Giday books Kindaya Mekelle University

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Published by: Kujhons 759 on Jun 26, 2012

Published by: Muhammad ullah on Dec 18, 2009


Dr.1.g Norman, chief medical officer of the London 196 world health organization

BenardOkun and Richard W. Richardson

http://somalilandsun.com/
Appendix I

Questionnaire for drivers

Section I: Demographic characteristics of the Respondents

A. Age: (repetition of ages)

B. Gender
   1: Male  2: Female

C. Education level
   1. Secondary  2. Bachelor’s degree  3. Masters degree
   4. Islamic Institutes  5. Other____________________________

Section I Questions concerning drivers

D. How long have you being driving cars?
   1. below 1 year
   2: 1 -3 years
   3: 4 – 6 Years
   4: 7 – 9 years
   5: Above 10 years

E. What kind of training you have obtained along your career?
   1. Driving school certificate training
   2. Experience
   3. Other____________________________

F. According to your experience, what are the key causative agents of the accidents?
   1. Drugs
   2. Chewing qat
   3. Other

G. How the damage of the accidents can affect your economic status?
   1. Very high
   2. High
3. Normal □

**H.** The skilled traffic personnel can decrease the level of car accidents.
1. Agree □
2. Strongly agree □
3. Disagree □
4. Strongly disagree □

**J.** At what extent that the qualified drivers can decrease the car accidents?
1. Very high □
2. High □
3. Low □
4. Very low □
5. Fair □

**K.** What are the key causes of road accidents?
1. Poor road conditions □
2. Lack of road signs □
3. Lack of qualified traffics □

**L.** Was your vehicle damaged because of an accident?
1. Yes □
2. No □

**M.** Do you have a legal expenses insurance cover?
1. Yes □
2. No □

**N.** Is your damage beyond economical repair?
1. Yes □
2. No □
3. Don’t Know □
O. what type of cars are always used in Somaliland?
1. Left hander cars  
2. Right hander cars  
3. Both  

P. do you agree that improving the road signs can decrease the level of accident?
1. Strongly agree  
2. Agree  
3. Strongly disagree  
4. Disagree  

Q. what kind of impact are always resulted the accidents?
1. Economic impacts only  
2. Socio-economic impacts  
3. Property loss  
Appendix II

Interview Guide for Traffic authorities

1. What kinds of accidents are always happened the most?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. What kind of impacts does the car accident is resulted?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. Are there any measures to minimize the risks of the accidents?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. Is there any tangible development that traffic authorities made towards the accidents?

________________________________________________________________________
________________________________________________________________________

5. What is the level of car accident in Hargeisa city?

________________________________________________________________________
________________________________________________________________________

6. What are your recommendations towards the drivers in order to minimize the risks of the accidents?
Appendix III

Interview Guide for the Victims

1. What type of injuries you suffered?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

2. Do you believe that the increasing number of cars can cause a lot of accidents in the future based on your experience?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Did you attend hospital as a result of accident?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

4. What kind of damages you faced after the accident?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

5. What are your suggestions you give the drivers and other related personnel’s?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
Appendix IV

Interview Guide for Hargeisa Group Hospital

1. Do you have the accident statistics received in the hospital?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. What kind of services do you give the victims of accidents?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

3. Is there any external help for the hospital especially when you received a unusual cases?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

4. What are your recommendations towards the drivers of the cars, traffics and the government authorities?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
## Observation Checklist Table

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>Repairing</th>
<th>Renewing</th>
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<td>Services they provide</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(x)</td>
<td>( )</td>
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<tr>
<td>2</td>
<td>Level of damage</td>
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<tr>
<td></td>
<td></td>
<td>(x) Huge damage</td>
<td>( ) small damage</td>
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<td>3</td>
<td>Types of cars</td>
<td></td>
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<td></td>
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<td>(x) Lorry vehicles</td>
<td>( ) Luxury cars</td>
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<td>4</td>
<td>Motivation of the workers</td>
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<td>5</td>
<td>Spare parts available</td>
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<td></td>
<td>E</td>
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<tr>
<td>6</td>
<td>Resource Capacity of the garage</td>
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<tr>
<td>7</td>
<td>Number of damaged cars</td>
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Prepared By: FU ‘AD ALI JAMA & MOHAMED ESSA HIRSI