

# An Assessment on the Impact of Road Traffic Accidents on Human Security in Gedeo Zone (Ethiopia)

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## **Abstract**

*This study dealt with the impacts of road traffic accidents on human security in Gedeo zone particularly Sesa sub city of Dilla and 03 kebele of Yirga chefe towns administration. Accordingly, the paper aimed at exploring the impact of RTAs as a human security threat. Furthermore, this study examined measures taken to solve the effects of RTAs on human security. Regarding the methodology of the study, mixed research approach has been preferred to carry out the paper. The data has collected from both primary and secondary sources. Primary data was collected from some selected respondents where as secondary data was gathered from related literatures. Data obtained from different sources was analyzed both qualitatively and quantitatively; the non-numerical data was qualitatively analyzed where as the numerical data was quantitatively manipulated with clear interpretation. RTAs impacted the security of the people in different dimensions. To list some, first, it creates huge yoke on the economy of households especially when the productive member of the family becomes the victim. The sudden death of a breadwinner often places major and long-term responsibilities on other family members. The direct costs incurred by family are for medical expenses includes pre-hospital, hospital and post-hospital for survivors, legal expenses, cost of vehicle damage, etc. At national level prevention is also low on the political agenda. However, the following measures are being undertaken by authorities to reduce and/or prevent RTAs in Gedeo Zone: Dilla&Yirga Chefe towns. Education campaigns (creating awareness); enforcing the traffic regulation of*

*the zone: identifying black spots and strengthening police enforcement in these areas, improving the road design,, providing emergency services to reduce the death of victims before they reach hospital.*

**Key Words:** Pedestrians; Drivers; Accident; Gedeo Zone; Human Security

## **Background of the Study**

The modern discourse, human security included as a broadest dimension of peace and security. It goes far more than the absence of violent conflict. Among others, it encompasses human rights, good governance, conflict resolution, access to education and healthcare and ensuring that each individual has opportunities and choices to fully make use of his or her potential. It is because of this fact that governments in every corner of the world started taking steps towards reducing poverty, achieving economic growth and preventing conflicts. Freedom from want, freedom from fear, and the freedom of future generations to inherit a healthy natural environment -- these are the interrelated building blocks of human – and therefore national – security (Annan, 2000&Ogata, 1998). Human security can be defined as the protection of the individual's personal safety and freedom from direct and indirect threats of violence. For example, Hamerstand(2000) views human security as it is about attaining the social, political, environmental and economic conditions conducive to a life in freedom and dignity for the individual. It results from the social, psychological, economic, and political aspects of human life that in times of acute crisis or chronic deprivation protect the survival

of individuals, support individual and group capacities to attain minimally adequate standards of living, and promote constructive group attachment and continuity through time.

Human beings have been moving from place to place using different means of transportations. Among others, road transportation has been used as the most convenient means in different courses of time. Road transportation provides benefits both to nations and to individuals by facilitating movement of goods and people. It enables increased access to jobs, markets, education, recreation and health care. ECA (1989) noted that, flexibility is a major advantage of road transportations, which allows it to operate from door-to-door over short distances at the most competitive prices.

In Africa over 80% of goods and people are transported by roads and in Ethiopia road transport accounts for over 90% of all the interurban freight and passenger movements in the country. However, the increase in road transportation has placed a considerable burden on the people's lives. The pandemic of road traffic deaths and injuries is the major one. Currently, road traffic accidents worldwide are estimated to claim the lives of 1.4 million people per year and injure additional 20–50 million. By 2050 the International Futures (IFs) forecasting model anticipates that global traffic deaths will surpass 3 million people per year (Yared, 2012).

### **Statement of the Problem**

In Ethiopia, the rate of road traffic accidents (RTAs) is very high; because of road transport is the major transportation mechanism along with poor road infrastructure, poor enforcement of traffic laws and other factors. The Ethiopian traffic control system archives data on various aspects of the traffic system, such as traffic volume, concentration, and vehicle accidents; with more vehicles and traffic, the Southern Nations and Nationalities and Peoples Regional State (SNNPR), takes the lion's share of the risk, with an average of more than 8 accidents

being recorded every day and even more going unreported.

In Gedeo Zone, road traffic accidents are identified as serious human security problem. The costs of fatalities and injuries due to (RTAs) have a tremendous impact on societal well-being and socio-economic development. However, public policy responses to this epidemic have been muted at Zonal, Regional and National levels (Assefa, 2013). Hence, the issue of RTAs in Gedeo Zone ('Sesa Sub City' of Dilla and '03 kebele' of Yirga Chefe Town administrations) is worthy of investigation. The effects and measures in reducing or preventing vehicle crashes in the Zone context need to be analyzed to point out what should be done in a manner that contributes to the reduction of RTAs.

### **Research Questions**

The study focuses on the following research questions to achieve the aforementioned objectives.

- What effects do RTAs have on the security of people in Gedeo Zone: Sesa sub city of Dilla & 03 kebele Yirga Cheffe towns.
- To what extent do individuals and institutions rate RTAs as a security threat in the study areas?
- Are measures being taken to solve the effects of RTAs on human security?

### **Research objectives:**

The inquiry is aimed at addressing the following general and specific objectives:

#### **General Objective**

The general objective of the study is to assess the repercussions of road traffic accidents on human security in the case "Sesa Sub City" of Dilla and "03 Kebele" Yirga Chefe Town.

#### **Specific Objectives**

The following are specific objectives of the inquiry:

- To analyze the consequences of RTAs on the social and economic activities of individuals in the study areas.
- To examine measures taken to solve the effects of RTAs on human security.
- To recommend possible solutions to the problems of RTA in the study areas.

### **Research Design**

#### **Methods and Methodology of the Study**

The method of inquiry was mixed approach (qualitative and quantitative). Qualitative research, on the other hand, is concerned with qualitative phenomenon, i.e., phenomena relating to or involving quality or kind. It is important in the behavioural sciences where the aim is to discover the underlying motives of human behaviour. On the other hand, quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. It is also a formal, objective, systematic process in which numerical data is utilized to obtain information about the world (Kothari, 2004).

#### **Data Collection Techniques**

For the sake of accomplishing the desired outcomes, the required data has been gathered from primary and secondary sources. Thus, the primary source of data was collected through the following instruments:

#### **Interview**

Both structured and semi-structured interviews have been prepared to collect data from fifty (50) key informants including traffic policemen, traffic authorities, Gedeo Zone transport authorities, drivers, RTA victims from selected kebelles of Dilla and Yirga chefe towns and/or family members.

#### **Questionnaire**

In addition to interview, the researcher utilized open ended questionnaire for the sake of obtaining and inviting free responses from the respondents towards the subject of inquiry. To check the validity of the questionnaire a pilot test was conducted. Finally, the researcher

distributed the questionnaire to 50 purposively selected respondents.

In addition to the abovementioned primary sources, secondary data was collected from Gedeo Zone Traffic Police Department, Central Statistic Agency (CSA), as the traffic regulation, books, thesis, and reports (extracted from international organizations such as WHO, WBG (World Bank Group) and others.

#### **Focus Group Discussion**

Focus Group Discussion was the other important technique to collect information from various stakeholders: Zonal, Subcity and kebele administrations and officials, road users, traffic police and victims' families.

#### **Sampling Techniques**

The sample areas of the investigation were selected based preliminary assessment made by the researcher. Accordingly, "Sesa Sub-City" of Dilla and "03 Kebele" of Yirga Chafe towns administration where selected as traffic accident prone areas. The sampling techniques were systematic and purposive sampling. As a result, Gedeo Zone Road Transport Department and Traffic Police Officers, Nurses, RTAs Victims and Insurance companies (Private and Government) and drivers were selected as target groups of the study using purposive sampling.

The researcher selected six drivers (Dilla&Yirga Chefe towns) and (traffic policemen (Dilla&Yirga Chefe towns), two respondents from Zonal Transport Department and two from Zonal Road Transport and Inspection Department, two respondents from Gedeo Zone Health Department for semi-structured and unstructured interview. Eight RTA victims were involved in the semi-structured interview. Through applying systematic sampling questionnaire, respondent pedestrians were chosen from households.

#### **Data Analysis**

The data gathered from different sources is analyzed using mixed approach. Tables, charts and figures were used to create, clarify and substantiate explanations. The data gathered through interview, questionnaire, recorded data

Types of accidents	2012	2013	2014
Fatal	41	34	57
Heavy	89	54	26
Light	126	167	184
Property Damage	N.A	N.A	N.A
Total	286	255	267

from traffic authorities and other institutions were transcribed into themes and analyzed from the perspective of human security approach and literature.

### **Ethical Considerations**

This study was conducted in a manner that was consistent with ethical issues that need to be considered in conducting a research. Hence, most individuals the researcher visited for interview accepted and cooperated with the researcher willingly. Moreover, a prior consent of the participants was requested before conducting the interview. The data gathered from those who did not want to be quoted was presented anonymously.

### **Organization of the Study**

The paper is organized into five chapters. The discussion of the problem, objectives and method of the study is followed by a sketch of literature and conceptual issues that inform the subsequent part of the study. The paper discusses dealt with the effects of RTAs on human security, measures being undertaken to reduce and/or prevent the occurrences of road crashes in Gedeo Zone particularly in selected case study areas, and examines individual's perception towards RTA as a security threat along with the literature. Finally, the paper ends up with some concluding remarks and recommendations.

## **Effects of Road Traffic Accidents on Human Security in Gedeo Zone: Dilla (Sesa Sub City) and Yirga Chefe Town Administrations**

### **Introduction**

As far as road traffic accidents are concerned, it threatens the security of people in many aspects. Among others, Economical, psychological, social and health related factors are enumerated. Especially in developing countries, road traffic accidents are the major security threats of their people. In Gedeo Zone, the impacts of road traffic accidents threaten the securities of peoples severely. This paper examine the impact of road traffic accidents on human security in Gedeo Zone a particular cases of Dilla (Sesa-sub city) and Yirga Cheffe towns(03 kebele) administrations.

Road traffic crashes take the lives of nearly 1.3 million people every year, and injure 20–50 million more. In addition to the grief and suffering they cause, road traffic crashes result in considerable economic losses to victims, their families, and nations as a whole, costing most countries 1–3% of their gross national product. Road traffic injuries have become the leading cause of death for people aged 15–29 years (WHO, 2010). Motor vehicle accidents have economic, social, psychological, and health effects on an individual (Ansari et al, 2003).

### **Figure 1: Total number of RTAs in Gedeo zone, Dilla: Sesa Sub City and Yirga Cheffe towns (03 kebele) administrations (2012-14)**

**NA: The data is not available.**

**(Source: Gedeo Zone Road Transport Coordination Department)**

The table above indicates that, 14.4% fatal, 29.8% heavy, 43.97% light and unknown percent of property damage accidents occurred in Gedeo zone. Although, the real figure of property damage is not sated; interview held with Desalegn(2013) confirmed that it takes the lion's share of the accidents.



**Economic Costs of Road Traffic Accidents in Gedeo Zone**

Although quantifying the economic impact of road traffic injury is difficult, based on ‘value of life’ calculations, the cost of fatalities alone represents some US\$385bn for low-income and middle-income countries (Watkins and Sridhar; 2009:6). However, the economic consequences of RTAs have multifaceted effects on victims, economy of households, states and the world at large (WHO, 2009). The economic cost of road crashes and injuries is estimated to be 1% of gross national product (GNP) in low-income countries, 1.5% in middle-income countries and 2% in high-income countries. The global cost is estimated to be US\$ 518 billion per year. Low-income and middle-income countries account for US\$ 65 billion, more than the total amount of money that these countries receive in development assistance (Jacobs et al, 2000). According to Ethiopia Federal Police Report (2011/12), the country sacrifices more than 800 million ETB every year due to RTAs.

**Table two: Dilla(Sesa sub city)and Yirga Cheffe Towns RTAs Victims Economic Costs(2012-14)**

Place of the Accidents	Number of Causalities	Age15-60	Number of employed victims	Number of unemployed victims
Dilla town(Sesa sub city)	64	49	43(bread winners)	21
Yirga Cheffe	81	54	33(bread winners)	48
Total	145	103	76(breadwinners)	69

**N.B the above table shows only registered accidents**

**Source: Gedeo Zone Transport Coordination Department**

The above table shows 71% of road traffic accidents victims in the study areas are the productive section of the society (adult and youth), the towns loses the contribution of these energetic members of its society. Because the majority of RTA victims these costs result from the temporary or permanent disability of the

injured, and the complete loss of production of fatalities which includes the value of the production that would have been realized by the casualties if they had not been injured or killed (Asefa, 2013). A lot of victims belong to younger age groups resulting in many years of life either lost or threatened by severe disability.

In accordance with Dilla town traffic police coordination office report, in 2011 out of 79 (registered accidents) 67(84.8%) casualties were people aged from 15-51 years. More specifically, 41 employed, and unemployed 39 pupils have been the victims of RTAs. This shows how road traffic accidents negatively affect the security of the people and crippled the effort undergoing to transform the economic development of the towns.

Furthermore, Discussion held with focus group discussion participants, the impact of RTAs are not bounded only on those direct victims, and it also affects their families severely. They explained that, subsequent to a car accident he is unable to support his family financially like he did before the accident and apparently, the family lacks sufficient amount of money to afford for living, for children’s to buy stationery and clothing. On account of death or injury of breadwinners or head of family, ‘families or relatives drop their children out of school; they cannot afford clothing, heating or health care’. However, RTAs affect families of victims differently. A victim who is a sole mother of five dependents will have more difficulty coping financially with the consequences of an accident than a victim with no dependents (Tarekegn, 2013).

Moreover, RTAs cause property damages which cost individuals and the state a tremendous amount of money (Yohannies, 2013). De leon et al (2005) stated that, property damage consists of vehicle repair, lost of economic productivity of public utility vehicles and cost of towing services. Yohannies(2013) further explained that, ‘given the spare parts of vehicles are imported from outside, the state’s expenses of

foreign currency could not be undervalued'. Besides, RTAs raise the expenses of social institutions like *edir*, since victim members of the *edir* will be financed to cover funeral and related expenditures.

RTAs also incur medical costs of casualties costs, rehabilitation costs, fire brigade costs, medical care costs for first aid employees and inputs and administrative costs (Salem, 2013), which includes police, legal and insurance administration expenses to prosecute and investigate RTA offenders (De leon et al, cited in Yared, 2012). According to Ethiopia Insurance Corporation, from 2008-2010 the administrative costs attributable to motor accidents is 16,993,243.90 ETB. Even so, it is difficult to find administrative and medical costs in Gedeo Zone

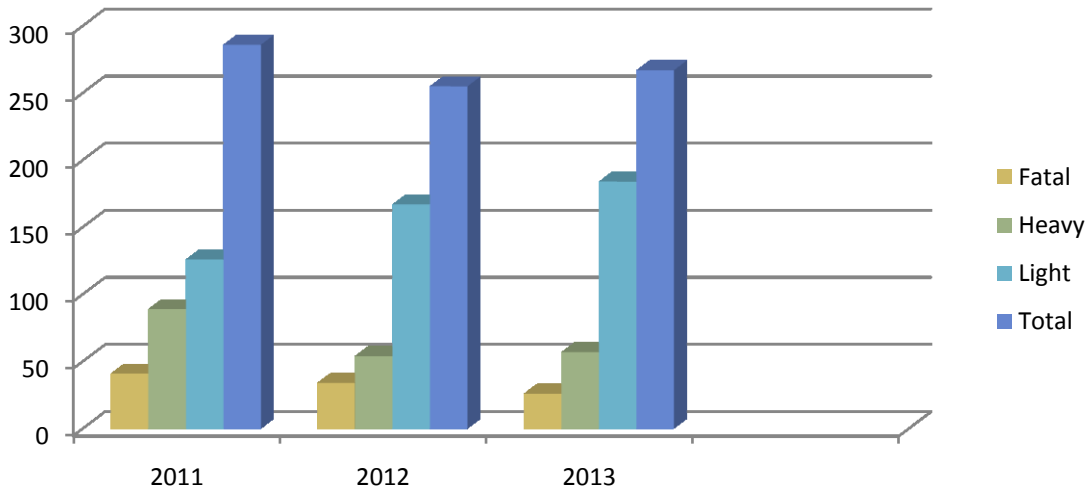
Generally, road traffic accidents retarded the economic aspirations and development of the two towns (Dilla:Sesa subcity&Yirga Cheffe towns) due to the premature loss of qualified and potential contributing professionals. It remains as a heavy burden of the household victims. Many families are driven deeply into poverty by the loss of breadwinners and the added burden of caring for members disabled by road traffic injuries (WHO, 2004). When people's livelihood is highly compromise; i.e. when they are uncertain about where the next meal comes from, when they are unsure about the continuity of their jobs, when their saving

shows sudden plummet in value, when their production diminish in quantity and quality etc, human security besieges in economic threats (CHS, 2003).

### **Social and Psychological Costs of Road Traffic Accidents in Gedeo Zone: Dilla (Sesa Sub City) and Yirga Chefe Town Administrations**

Day after day, individuals face the risk of road traffic accidents all over the world. RTAs affect many sectors of society: individuals, families, communities and countries (Hassan Abu Hassan, 2010 cited in Yared, 2012). WHO (2009) reported that based on modelled numbers, Ethiopia is the 10<sup>th</sup> country with the highest number of deaths in the world. Victims of fatal road accidents die on the scene or in hospital. Survivors also suffer from different types of injuries and disabilities which can affect their quality of life. Victims can be passengers or pedestrians and drivers. Getachew (2011) stated that, 'the immeasurable repercussions of RTAs are suffering, pain, sorrow and loss of the joy of living. The pain and suffering caused and the tragedy of death or permanent disability to the community arises from road traffic accidents'. Gedeo Zone Police Department Traffic Coordination reported that RTAs from (2011-2013) caused 803 casualties on pedestrians, drivers and passengers in the zone.

**Chart one: the magnitude of RTAs in Gedeo (2011-13) in terms of Severity**



**Source: Gedeo Zone Traffic Coordination Department**

The above chart illustrates the grave circumstance and repercussions of RTAs on individuals in Gedeo zone. As it shown, in Gedeo zone road traffic accidents are neglected causes of morbidity and mortality which leads a lot of people to death and permanent impairment. However, the above figure does not represent total number of RTAs in the zone, a number of accidents left unreported or underreported due to shortage of traffic personnel, absence of traffic control technologies etc and still significant number of RTAs occurred in the country side of the zone (Yohannies, 2013).

The social and psychological impact of road traffic accidents in the study areas, human suffering for victims and their families of road traffic-related injuries is incalculable. There are endless repercussions: families break up; high counselling costs for the bereaved relatives; no income for a family if a breadwinner is lost; and thousands of dollars to care for injured and paralyzed people. On top of that, road traffic accident is remains as the major causes of mental health problem (WHO, 2004).

Morbidity due to injuries from road crashes cause considerable human suffering of victims and their relatives (ETSC, 1999). Interview held with a physician <sup>1</sup>in Dilla Referral Hospital underscore that, following the accident it was difficult for victim to take care of himself, talk to his family, and stayed in comma or unconscious. His families were looking after him till he left the hospital. Similarly, interview held with road traffic accident victims in Yirga Cheffe town(03Kebelle), the suffering is not ended on the victims instead it goes far up to their family: absent from workplace because of various reasons. Among others, grief, feeling of lone less, psychological traumas and social crises are enumerated. Work is a major determinant of quality of life and social re-integration and thus is an important tool for measuring long term outcomes (Mayou and Bryant, 2003). ETSC (2007) contends that, due to road traffic injury, victims never backs to work or exit the labour force and receive

<sup>1</sup> Interview held with Abrham syoum(M.D) 07/11/2013 G.C

disability pensions, others require to be retrained to different type of work, partially disabled may work reduced hours.

Moreover, interview held with anonymous road traffic accident victim from Dilla town commonly known as **Kirnochaf** primary school reminded that, she was unable to attend class for more than a month and lagged from her class mates. Another road traffic accident victim in the same town (2013) noted that, he was compelled to change his work due to psychological and physical reasons and for the sake of taking care of the respondent, some family members have reduced their work time. Interview held with driver participant (2013) in Dilla town underscore that, the major post-crash changes in his career or work ambitions and had subsequently set himself lower goals than before the accident. In a similar vein, Hassan (2010) noted that, these patients are usually only to a small extent included in the police records, even though the long-term consequences of injury might be severe. The impact social of RTAs on accident victims are numerous and diverse: job absences and disabilities, need of care from a third person, need to adapt their homes and social discrimination etc.

The vivid here is that road traffic accidents (RTA) victim undergone through anxiety and loss of confidence in mixing with people and often declined invitations to go out. They felt that their social life had lessened and not having the same opportunities they once had to mix with people. In line with this, interview held with a lecturer<sup>2</sup> of psychology in Dilla University noted that, victims of road traffic accidents are suffering not only physically but also psychologically. Due to their behavioural change, short-temper, and anxiety their family experienced tension.

<sup>2</sup> Henok, M.A in Social Psychology, 2013

Loss of motivation and interest in activities, irritability and stress caused changes in their personal life for the respondents. Social isolation, frustration, lack of motivation, decrease in daily activities, indifference to people and activities and boredom were noted for those not returning to normal work routines. He further stated that, victims cope differently with similar injuries for a variety of reasons. Some people recover faster than others, and some benefit from close family assistance whilst others rely more on the help outside their immediate social circle (Sleet and Branche, 2004).

Most RTAs victims' participants of this study stated that, they do not face social segregation owing to their accident at least publicly. However, Livingston and Brooks (1988) argues that, victims may lose their meaning of life and lose attachment to their surrounding environment; consequently social interaction diminished over time or affected so long as appropriate measures or intervention takes place. Interview held with a psychologist in Dilla University (2013) noted that, following the accident many of RTA victim's social capital diminished and experienced poor relationship with friends. He further added that, healthy body function and structure is influenced by impairments causing deviation or loss. Hence, the participation of these individuals in the society diminish over time, since, involvement in a life situation or being included or engaged in an area or being accepted or having access to resources matters in a social system. Disability is not the trait of the individual; instead it is created by the social environmental and requires social changes (Mitra, 2006).

As it has been said elsewhere in this paper, the effect of road traffic accident also extends to the family members and relatives. Families suffer from their children or family member



involvement in vehicle accidents. Families are deemed to be another hidden victim of road traffic accidents, and requires care and assistance the same as road traffic accidents victims or survivors (Livingstone and Brooks, 1988). Families experience several interpersonal difficulties such as family friction or poor tolerance. Family wellness is the core of any wealthy society worldwide<sup>3</sup>. All victim respondents agreed that, since the accidents were sudden their families undergo through instantaneous grief, sorrow, and places major responsibility on their shoulders in order to fill the gap that was created due to the accidents on one of their members. According to the interview held with road traffic accidents victim in Yirga Cheffe town, "I felt in deep sorrow when my families are getting sorrow of my case". In a similar vein,

Relatives or family members of victims experience continuous absence from work, sorrow, suicidal feelings and anxiety attacks (Asefa, 2013). In many developing countries, the costs of prolonged medical care, the loss of the family bread winner, the cost of a funeral, and the loss of income due to disability can push families into poverty; this in turn creates new social status or meaning to survivors (Hijar et al, 2003).

Moreover, drivers who are involved in accidents suffer a number of adverse consequences even if they are not injured. For example, a driver may be prosecuted for negligence or even manslaughter as a result of an accident (Tariku, 2011). In relation to this, interview held with Israel(a lecture in school of law/Dilla University/ traffic accidents are considered as a crime: injuring or a killing resulting from the commission of a traffic violation, or as the result of negligence, such as reckless or careless

driving, in which there is no intention to kill. Thus, there are several drivers who are prosecuted every year in Gedio Zone (Isreal, 2014). Imprisonment and other penalties as a result of road traffic crimes, also represent an additional burden to the society as a whole and particularly for juveniles, young and those in early middle age, often neglected when considering the impact of road accidents (Jacobs et al, 2000). However, all driver respondents noted that, they were never convicted of such a crime other than penalties by traffic police for minor offences.

Road crash injury is a social equity issue equal protection to all road users should be aimed for since pedestrians and motor cyclists (in low-income and middle-income countries) bear a disproportionate share of road injury and risk (WHO, 2004). Poorer people comprise the majority of casualties and lack ongoing support in the event of long-term injury. They also have limited access to post-crash emergency care (Mock et al, 1997 cited in Yared 2012). They benefit least from policies designed for motorized travel, but bear a disproportionate share of the disadvantages of motorization in terms of injury (WHO, 2009).

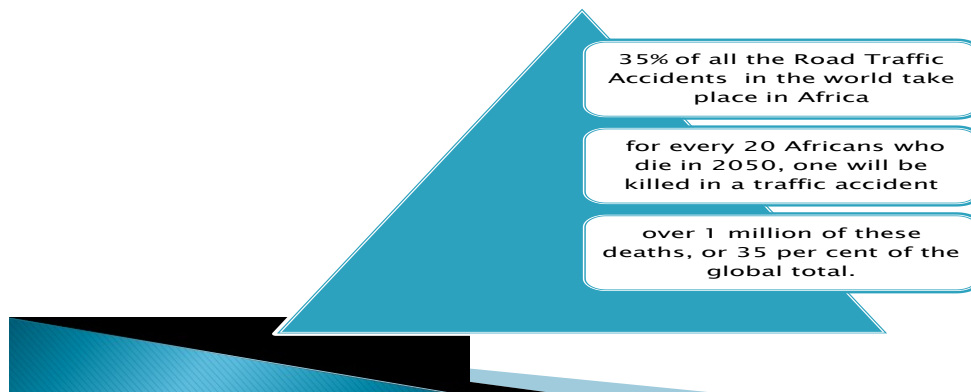
#### **Health Related Impact of Road Traffic Accidents in the Study Areas**

Road traffic accidents now constitute a public health problem of the first magnitude at global, regional and national levels (WHO, 2009). It is a problem that appears likely to increase still further. Globally, millions of people are coping with the death or disability of family members from road traffic injury (WHO, 2004).

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<sup>3</sup> Henok, M.A in Social Psychology,2013, Dilla University

Figure-1 World Health Organizations(WHO) African Human Security Report 2009



Over 90% of the world's fatalities on the roads occur in low-income and middle income countries, which have only 48% of the world's vehicles (WHO; 2009, 1). Road traffic accidents are a perfect example of a 'disease of development' which is far more prevalent in developing countries than in developed ones. Because they are perceived as 'disease of development', road traffic accidents and related injuries tend to be under-recognized as major health problems in developing countries (Zwi, 1993).

Less serious injuries consist of lacerations; loss of limbs or fractured bones can result in chronic physical pain and limit the injured person's physical activity for lengthy periods (Bačkaitis, 2000). Data from the WHO (2004) show that, of those injured severely enough to require attention from a health facility, almost one quarter had traumatic brain injury and one tenth had open wounds. Fractured bones accounted for most other injuries. According to Baldo et al (2003 and Thurman (2001), road traffic crashes are the leading cause of traumatic brain injury in both high-income and low-income and middle-income countries. According to Central Statics Agency (2010), vehicle accident is categorized under the major causes of disability in Ethiopia.

Another serious health related consequences of road traffic accidents are mental health

problems, which can have a substantial impact on the survivors of road traffic accidents and their families (Blanchard and Veazey, 2001). In other words, victims may have mental problems after road traffic accidents. There are several different types of disorders. The common disorders are Acute Stress Disorder (ASD), Post-Traumatic Stress Disorders (PTSD), anxiety disorders, depression and mood disorders (Blanchard and Veazey, 2001). Interview held with anonymous (2013) noted that, he experienced intense fear, helplessness, and loss of control after the accident. CHS (2003 cited in Yared 2012) argued that, good health 'enables people to exercise choice, pursue social opportunities and plan for their future' and can thus be considered a prerequisite for sustainable human development and social stability.

High levels of anxiety, depression, irritability and mood disturbances are the most common psychological symptoms among victims' relatives with related to the shock of losing their close relatives or loved ones (Livingston and Brooks, 1988). 15% of young RTA survivors' parents had post traumatic stress disorder (PTSD) 7-12 months after the accident (Blanchard and Veazey, 2001). It would be impossible to attach a value to each case of human sacrifice and suffering, add up the values and produce

a figure that captures the global social cost of road crashes and injuries (WHO, 2004).

### **Measures Undertaken to Reduce the Effects of Road Traffic Accidents in Gedeo Zone: Sesa subcity of Dilla and Yirga Chefe towns**

Road traffic accidents are easier to ensure through early prevention than later intervention. It is less costly to meet these threats upstream than downstream (UNDP; 1994, 22). Road traffic injuries are major causes of morbidity and mortality challenge that requires concerted efforts for effective and sustainable prevention (WHO, 2004). The cost of RTAs in Gedeo Zone is extremely high compared to the number of vehicles. To reduce the ramification of RTAs on human security various governmental institutions are trying to make contribution through teaching the awful effects of RTAs, taking necessary administrative measures starting from identifying black spots to regulating these areas through appointing traffic police force. Generally, education, engineering and enforcement, and issuing and enforcing appropriate regulations are being taken.

#### **Education (Creating Awareness)**

Education campaigns and programmes should be given through mass-media that accentuates the risk of road traffic injury when unable to see the regulations and increase the likelihood of being detected and penalized (WHO, 2009). Underlining the consequences of RTAs; broadcasting the daily road accidents through radio (FM 98.1&97.1 daily in the morning following 8:00 news) awakes the people how much the vehicle accident is getting worse (Asefa, 2012).

In the prevention of pedestrian injuries, educational measures to teach pedestrians about how to cope with the traffic environment are considered to be an essential component of any prevention strategy and pedestrian education has been recommended

(World Bank, 2001). Police television<sup>4</sup> programmes, Automotive Journal (ETV3) and *Guzo* Radio and Television Program<sup>5</sup> are being transmitted in Ethiopia Radio and Television Agency. Broadcasting the causes, effects and suggesting measures to reduce RTAs to the viewers is embedded in the programmes. This gives insights concerning RTAs to viewers (Setegn, Dile, Yadesa, and QR, 2011).

In addition to the endeavours to create awareness about RTAs through mass-media and magazine (*Police ena Ermejaw Gazetha*), printing and distributing pamphlets on the subject of RTAs is another measure (Yohannies and Tarekegn, 2013). Some activities of awareness creation campaign have been done by the traffic police personnel's to students in schools, and people gather for session/meeting in Kebeles, religious institutions regarding what kind of measures these people should undertake to avoid themselves from RTAs. To reduce the death and injury rates of children, the traffic police of the sub-city inform parents to teach their children how to cope with the road traffic to improve children's road safety knowledge and road crossing behaviour. In addition, efforts are being made to teach pedestrians using mobile mega-phones along the main road of Dilla and Yirga cheffe towns (interview held with Yohannies, 2013).

In the context of Gedeo Zone, to reduce the ramification of RTAs on human security various governmental institutions are trying to make contribution through teaching the awful effects of RTAs, taking administrative measures& identifying black spots to regulating these areas through appointing traffic police force (forexample, in Dilla

<sup>4</sup> Police Television Programmes are organized by Ethiopia Federal Police and Addis Ababa Police Commission.

<sup>5</sup> Guzo Radio and Television Programme is prepared by Ethiopia Transport Authority.

town, the cross road in front of Bank of Abyssinia, Dilla Primary School & Mahlet Hotel).

Moreover, the Gedeo Zone Traffic Coordination Department in collaboration with Dilla University Research and Dissemination Office (Community Service) wing have done many tasks. Among others, they prepare awareness creation lessons about first aid to traffic polices and ambulance service providers, which would enable these personnel to give necessary support to RTA casualties before they reach hospitals or clinics<sup>6</sup>. Education may need to be repeated at regular intervals, as its effect can decline with time. However, whether these changes to knowledge or behaviour can be linked to a reduction in pedestrian deaths and injuries is unknown (Nantulya and Reich, 2002).

Trainers of student drivers are giving theoretical and practical lessons about the effects of not sticking to the traffic rules (Tarekegn, 2013). Producing efficient drivers is one of the goals of Gedio Zone and Dilla Town Traffic Coordination to reduce RTAs (Yohannies, 2013). However, there is no mechanism to control driver efficiency (Dile, 2011).

Driver education or training programmes have not been found to reduce motor vehicle crashes, but they still are widely advocated as essential safety programmes. Scholars argued that, cars are equipped with seat belts which consisted of shoulder harnesses that are applied automatically to front seat passengers as the door closed. Drivers are trained and always hear that seat belts reduce road crash injuries, but some drivers pretend that as if

they are using the seat belt without fastening to avoid penalties (Nantulya, 2012).

Moreover, some drivers knowingly contravene the traffic regulation. For example, drivers know that ignoring giving priority to pedestrians, driving after consuming alcohol and driving without keeping the right distance from other vehicles are inappropriate behaviours, yet these obviously unsafe actions are common in Dilla and Yirgacheffe towns and are leading causes of crashes (Belayneh, 2013). Driver education programmes can increase knowledge, but this rarely results in appropriate behaviour change. Similarly, driver training programmes have not been shown to reduce crashes. They may be useful for teaching novice drivers, and in some cases they may improve driving skills, but better skills do not automatically lead to fewer crashes (Williams and O'Neill, 1974).

No motorists believe their own skills are below average. So motorists agree that there are many "bad" drivers, but virtually all believe that the "bad" drivers are someone else. One reason education fails is that road users such as small children, teenagers and people who are psychologically disturbed, under stress, under the influence of alcohol, or elderly may not act according to their knowledge, and drivers cannot be convinced that they are at risk of crash and (Nantulya and Reich, 2002 cited in Yared, 2012).

#### **4. Conclusion and Recommendation**

Road traffic deaths and injuries remain almost invisible to every corner of the world where there are vehicles. They are a hidden epidemic. Hundreds of thousands of traffic crashes remain scattered events, tragic to those involved, but not newsworthy; unlike train or aircraft crashes which, in contrast, are almost always treated as sensational media events. The road user is also often viewed as at fault for being involved in a crash, or simply a victim of fate. Blaming the victim,

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<sup>6</sup> A Report Presented by Teshome on Dilla University Annual Research Symposium, 2013



however, is an attitude that can easily discourage investigation and action to develop measures that can make crashes less likely and their consequences less severe.

Reaching a conclusion with a list of specific causes of RTAs and pronouncing them as the only reason for the incidence of RTAs is unprofessional and very difficult. Each accident is likely to have several causative factors. However, pursuant to Gedio Zone Traffic Department Report, road crashes are induced by human factors which is the view of 'personal approach'. Consequently, road user's error (i.e., pedestrians and drivers) accounts for the occurrence of RTAs in Dilla&Yirga Chefe towns. The contributions of other factors such as, poor road quality, poor enforcement of traffic regulations and vehicle defects is very low compared to human factors. Nevertheless, it is difficult to blame human errors as they are the only evidence to attest the incidence of vehicle crash. Instead the combination of several causes plays their part for a RTA to happen. Besides, major causes of RTAs are beyond human factors which entail political commitment to fight and reduce the causes of accidents.

RTAs have multifaceted effects on the human security of the people. To list some, first, it creates huge yoke on the economy of households especially when the productive member of the family becomes the victim of RTA. The sudden death of a breadwinner often places major and long-term responsibilities on other family members. The direct costs incurred by family are for medical expenses, i.e., includes pre-hospital, hospital and post-hospital for survivors, legal expenses, cost of vehicle damage, etc. Second, RTAs present loss to the economy of developing countries, like Ethiopia. The cost of RTA is estimated to be 1% - 2% of gross national product (GNP) in low-income countries. The death or injury of the productive section of the society negatively

affects the value of production that would have been realized by the casualties. Third, property damages cost the state and individuals a tremendous amount of money. The property damage consists of vehicle repair, loss of economic productivity of public utility vehicles and cost of towing services. Fourth, RTAs increases claims paid to customers by insurance companies. Institution like edir due to vehicle crashes to cover the funeral and related activities expends to members. Fifth, RTAs as well negatively affects the social interaction and status of victims and family or relatives of victims. Sixth, health problems, including permanent and temporal physical injuries are the other upshots of RTAs.

Road traffic injuries are ubiquitous yet invisible. As a global issue they have been largely ignored by the international community. At national level prevention is also low on the political agenda. However, the following measures are being undertaken by authorities to reduce and/or prevent RTAs in Gedio Zone: Dilla&Yirga Chefe towns. Education campaigns (creating awareness); enforcing the traffic regulation of the city; identifying black spots and strengthening police enforcement in these areas; improving the road design is another measure; strengthening annual vehicle performance inspection providing emergency services to reduce the death of victims before they reach hospital.

Generally, traffic crashes are the leading causes of death for people 15-30 years old and presents a great risk on the security of individuals. Alkire (2003) argued that, the vital core of the people should be protected, which includes survival, livelihood and dignity of individuals. A number of people die due to traffic-related accidents immediately in the scene and after the crash, and temporarily or permanently disabled.

- ▶ As Respondents noted there is poor controlling system both in giving licenses for the drivers and enforcing traffic regulations. Besides, a number of motor cycles are on road without having **number plate** in the case study areas.
- ▶ On top of that, most of motor cycle drivers are teenagers under eighty years of age. Specially, in the downtown of Dilla town commonly known as “**Sunshine Hotel**” is a black spot of road traffic accidents.

## 4.2 Recommendations

Since most accidents are caused by the road user’s error, it should be better if the Zone administration in collaboration with Dilla&Yirga Chefe towns and concerned authorities work on educating pedestrians and drivers on the issue of road safety. In addition, instead of blaming road users as the major contributor for the occurrences of RTAs; it is better to embrace and search for solution to the whole road system barriers.

As Respondents noted there is poor controlling system both in giving licenses for the drivers and enforcing traffic regulations. Besides, a number of motor cycles are on road without having number plate in the case study areas. On top of that, most of motor cycle drivers are teenagers under eighty years of age. Specially, in the downtown of Dilla town commonly known as “Sunshine” is a black spot of road traffic accidents. The author of this paper have witnessed different (light physical injuries up to fatal injuries) road traffic accidents in different course of time. Therefore, the zone administration should enforce traffic rules and regulations properly.

It has been noted several occasions that the results of the study were limited because there were insufficient details available on the causes of RTAs and long term effects of RTAs. There is a need for further research

into the long term consequences of RTAs and conducting a large scale follow up.

## References

- [1.] Asplund, E. (2004). *A two level approach to securitization: an analysis of drug trafficking in China and Russia*. UPIS: Sweden.
- [2.] Atnafseged, K. (1996). *Road safety management crisis in Ethiopia*. Unpublished Report.
- [3.] Axworthy, L. (1997). *Canada and human security: the need for leadership*. International Journal, vol. LII: p. 183-196.
- [4.] Babkov, V. (1975). *Road Conditions and Traffic Safety*. Mir Publishers, Moscow.
- [5.] Bačkaitis, S. (2000). *Economic consequences of traffic accidents in the Baltic countries*. Lituanius: Lituanius Quarterly Journal of Arts and Sciences; p.46. Retrieved from <http://www.lituanus.org>
- [6.] Baldo, V. (2003). *Epidemiological aspect of traumatic brain injury in Northeast Italy*. European Journal of Epidemiology; v.18: p.1059–1063.
- [7.] Benedetto, A. (2008). *Road traffic accidents in Ethiopia: magnitude, causes and possible interventions*. Advance in Transportation Studies; An International journal, Vol. XV.
- [8.] Bener, A.; Abu-Zidan, M and Bensiali, A. (2003). *Strategy to improve road safety in developing countries*. Saudi Med J 2003; Vol. 24 (6): p. 603-608

- [9.] Berhanu, G. (2000). *Effects of road and traffic factors on road safety in Ethiopia*. Trodhiem, Norway, 2000.
- [10.] Blanchard, E. and Veazey, C. (2001). *Mental disorders resulting from road traffic accidents. Current Opinion in Psychiatry*. p. 143-147. Retrieved from <http://ovidsp.tx.ovid.com>
- [11.] Champion, H. (2005). *New tools to reduce deaths and disabilities by improving emergency care*. Paper Number 05-0191.
- [12.] Commission on Human Security (2003). *Human security now*. New York.
- [13.] Curtin, D. and Robert, L. (1999). *Institutional violence*. Atlanta, GA: Rodopi.
- [14.] De leon, M.; Cal, C. and Sigua, G. (2005). *Estimation of socio-economic cost of road accidents in Metro Manila*. Journal of the Eastern Asia Society for Transportation Studies, Vol. 6, pp. 3183 – 3198.
- [15.] Economic Commission of Europe (1997). *Road traffic accidents in Europe and North America*. Vol. XLII, Geneva.
- [16.] Elvik, R. and Christensen, P. (2004). *An assessment of potential impacts on road safety traffic warning system*. TØI report 747, Oslo.
- [17.] Engwicht, D. (2005). *Mental speed bumps: the smarter way to tame traffic*. Envirobook, Australia.
- [18.] Ethiopia Federal Police. *Traffic Accident Data 2008-2010*. Unpublished.
- [19.] Ethiopia Insurance Corporation. *Insurance Account 2008-2010*. Unpublished.
- [20.] European Transport Safety Council (1995). *Reducing traffic injuries resulting from alcohol impairment*. Brussels.
- [21.] European Transport Safety Council (2007). *Social and economic consequences of road traffic injury in Europe*. Brussels.
- [22.] Ghee, C. and Astrop, A. (1997): *Socio-Economic Aspects of Road Accidents in Developing Countries*. Transport Research Laboratory, ISSN 0968-4107.
- [23.] Hampson, O.; Jean, D.; Hay, J.; Todd, M. and Holly, R. (2002). *Madness in the multitude: human security and world disorder*. Ottawa: Oxford University Press.
- [24.] Hassan Abu Hassan, A. (2010). *Road traffic accidents among youth worldwide*. UCQ Nursing Journal of Academic Writing, p. 28-36.
- [25.] Hobbs, F. (1979). *Traffic planning and engineering*. 2nd edition, Pergamon Press, New York.
- [26.] Hollnagel, E. and Amalberti, R. (2001). *The Emperor's new clothes or whatever happened to 'human error'?*. Invited keynote presentation at 4th International Workshop on Human Error, Safety and System Development. Linköping, June 11-12.

- [27.] Jacobs, G.; Thomas, A. and Astrop, A. (2000). *Estimating global road fatalities*. Crowthorne, Transport Research Laboratory (TRL Report, No. 445).
- [28.] Judd, L. (1985). *The effect of antipsychotic drugs on driving and driving-related psychomotor functions*. Accident Analysis and Prevention, v. 17: p.319–322.
- [29.] Krause, K. and Macfarlane, N. (2004). *What is human security?*. Security Dialogue, vol.35, no.3: p.367-368.
- [30.] Laflamme, L and Diderichsen, F. (2000). *Social differences in traffic injury risks in childhood and youth: a literature review and research agenda*. Injury Prevention; p.293–298.
- [31.] Leaning, J. and Arie, S. (2000). *Human Security: A Framework for Assessment in Conflict and Transition*. Crisis and Transition Tool Kit.
- [32.] Pratte, D. (1998). *Road to ruin: road traffic accidents in the developing world*. NEXUS vol. 13: p. 46-62, McMaster University.
- [33.] Prezelj, I. (ND). *Challenges in conceptualizing and providing human security*. HUMSEC Journal, Issue 2.
- [34.] Salmon, P.; Regan, M. and Astrop, A. (2005). *Human error and road transport: Phase One – A framework for error tolerant road transport system*. Report no. 256. Monash University Accident Research Center.
- [35.] Sen, A. (1999). *Development as freedom*. New York: Knopf Press.
- [36.] Shinoda, H. (2004). *The Concept of human security: historical and theoretical implications*. IPSHU English Research Report Series No.19.
- [37.] Sleet, A. and Branche, M. (2004). *Road safety: a new public health priority*. Safety Science Monitor, vol.8.
- [38.] Terje, A. (1998). *Road safety in Africa appraisal of road safety*.
- [39.] Thomas, C. (2000). *Global governance, development and human security the challenge of poverty and inequality*. London and Sterling, VA: Pluto Press.
- [40.] Thurman, D. (2001). *The epidemiology and economics of head trauma*. New York, Wiley and Sons, p.327–347.
- [41.] United Nations Development Program (1994). *Human development report*. New York: Oxford University Press.
- [42.] Van Elslande, P.; Naing, C. and Engel, R. (2008). *Analyzing 'human functional failures' in road accidents*. Project No. 027763 – TRACE.
- [43.] Waller, P. (1986). *The potentiating effects of alcohol on driver injury*. Journal of the American Medical Association 256(11): 1461-1466.
- [44.] World Health Organization (1977). *Manual of the international statistical classification of diseases*,



*injuries and causes of death.* Based on the Recommendations of the Ninth Revision Conference, 1975, World Health Organisation, Geneva.

[45.] Yared D.(2012) The Effects of Road Traffic Accidents in Addis Ababa City Administration :Cherkos Sub city, Unpublished.

[46.] \_\_\_\_\_ (2004). *World report on road traffic injury prevention: summary.* Geneva.

[47.] \_\_\_\_\_ (2010). *Decade of action for road safety.* Geneva

[48.] Zwi, A. (1993). *The Public health burden of injury in developing countries: A Critical Review of Literature.* Tropical Diseases Bulletin 90: RI-R45.