

## The response practices to road accidents in Tanzania

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### Abstract

Disaster response refers to activities deployed to limit the negative effects of hazards to save people's lives and their property. This study aimed to uncover the response practices commonly encountered in Tanzania during the disaster period. The study of this species was carried out insignificantly in Tanzania. The study aims to discuss response practices in the context of agreed international practices and to suggest to authorities the pathway for best practices in dealing with threats in Tanzania. The study used secondary data analysis extensively to discuss common response practices in a traffic accident. The discussion revealed that the uncivilized response to the disaster is mainly caused by a lack of skills and knowledge, poor support from the authorities, poverty and greed for wealth. In Tanzania, the response practices were more disastrous than the events themselves. Victims lose their property as it was stolen by the volunteer who came to hear them. Instead of saving people's lives and their property, they just steal that property on purpose. It has been suggested that these civil protection committees must function accordingly.

**Keywords:** Accidents; Response; Hazards; Disaster; Road

### 1. Introduction

Disaster relief refers to measures that are carried out immediately after a hazard occurs. Response activities depend on the timely availability of correct information and proper coordination to help victims. A hazard is an emergency whether it is a disaster or not. It's an emergency because a trained and untrained human is needed to handle the situation outside of normal life. The emergency lasts until the danger to life and limb is over. Response activities aim to limit further injury, death and property loss to the victim. The response to the accident is confusing and complex. Depending on the nature of the accident, one may stop thinking and only react by crying. At this point, outside help is urgently needed during the accident. If not managed well, the road accident will do more harm than the first hazard. The response is one of the four phases of modern disaster management that determines the magnitude of injury, death and loss of property. The hazard can be natural (earthquake, avalanche-tsunami, hydrology, landslide, mass movement, tectonics, flooding, rockfall and meteorological), man-made (accidents, terrorism, political, civil unrest, war, demonstrations or biological [pollutants, chemical and toxin viruses, bacteria]) (Hamis,2018). The accident is classified as a man-made hazard/disaster in the geography discipline. It is very common in Tanzania as will be discussed in the next section of this paper. Considering the title of the paper, only the traffic accident is covered.

Traffic accidents are a widespread phenomenon in Tanzania. The relief efforts have been a disaster as people living along the main street are awkward in their response. Virtually people living along the main road across the country have played a negative role in saving the victims' lives. People stole the victim's property instead of helping them to salvage that property. The reaction to the accident was pretty terrible for the victims and their belongings. The response of the communities, immediately after the accident, is to go out of their homes normally and search the property of the dead or wounded, pick them up and leave. In this regard, as a result of the accident, the victims suffocate and, even worse, lose their property. A practical example: Six months ago, Morogoro Residence witnessed a terrible fire

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accident caused by a petroleum truck crash near the Msamvu bus station. The fall of the kerosene-laden truck drew residents out of nowhere, who came out not to help the victim but to steal the spilt kerosene. Suddenly, oil exploded, leaving hundreds dead and hundreds more injured. The jumperless response has created more serious dangers than the accident itself. Against this background, this paper aimed to discuss the causes, how to proceed and the solution for this type of practice.

Response activities are divided into three categories namely

- Pre-hazards activities are when the accident is impending and inevitable
- The emergency activities are when the accident effect is ongoing and the first damaging effect begins and continues until the victim are reached the deserved place and is serviced.
- At the end of the events, at this phase of activities, all victims are attended, to and recognized and no more injuries are expected.

### 1.1. Recognition pre-accident Actions

Response to an accident begins as soon as traffic police or an officer with the authority to conduct the response effort becomes imminent. The recognition of the traffic accident depends on; Response plan, scene of the accident, technology, warning system, evacuation and availability of resources. Recognition after the accident, immediately after recognition of a traffic accident by the traffic or the authority with the accident location, starts a serious reaction. Reaction activities may be delayed for certain reasons, e.g Under estimation of an accident

- The event is hidden from authority
- Poor communication or unavailability of communication means e.g. network
- Responding to more than two accidents per

### *Objective*

This paper aimed at revealing the response practices commonly found in Tanzania during the catastrophic time. Objectively it discusses the response practices in the context of International standards and suggests the way forward on the proper handling of an accident in Tanzania.

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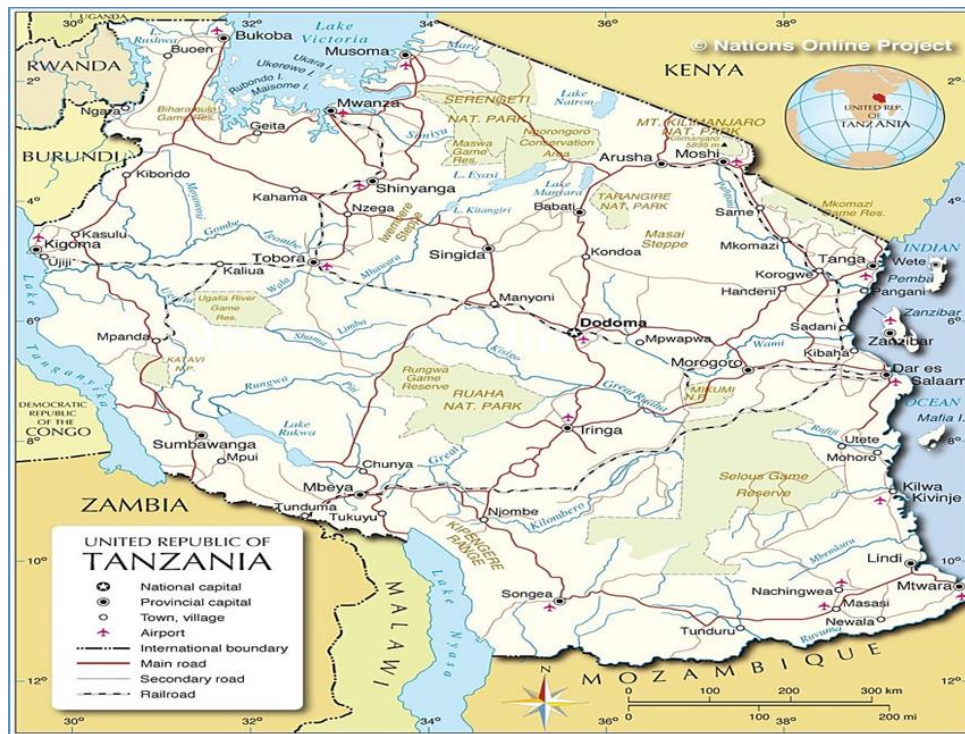
## 2. Material and methods

The article is used to report data, written documents, research, newspapers, internet sources and textbooks to discuss, analyze and recommend the approach to road accident response in Tanzania. The information extracted is reliable as it is public and available to other researchers.

### 2.1. Tanzania Geographical Location

Tanzania results from the Union of Tanganyika and Zanzibar on April 26; 1964. It stands at 10 and 12<sup>o</sup> latitude south of the Equator, 29<sup>o</sup> and 41<sup>o</sup> longitudes east of Greenwich. It has a 945,087 square kilometres area. It has the following neighbours, North Kenya and Uganda, West Rwanda, Burundi and Congo Kinshasa, Southwest, Malawi and Zambia, South, Mozambique and the East Indian Ocean.

Namely, there are three major lakes in Tanzania; Victoria, Tanganyika and Nyasa. Tropical climate dominates in Tanzania. Demographically, the population of Tanzania in 2012 was 45 million people from 126 tribes (NBS, 2013). The national language of this country is Swahili which is spoken by the majority. According to the Tanzania National Roads Agency, the road network in mainland Tanzania is estimated at 86,472 kilometres based on the Road Act 2007. TANROD manages the national road network of approximately 33,891 kilometres, including 12,786 kilometres of main roads and 21,105 kilometres of regional roads. In addition, there are around 53,460 kilometres of city, district and motorway feeder roads that are under municipal administration. The national road network consists of trunk roads with a length of 12,786 kilometres. Of these, 5,130 kilometres are paved and 7,656 kilometres are unpaved. regional roads; 21,105 kilometres, of which 840 kilometres are paved and 20,265 kilometres are unpaved (Tanzania.go.tz)



**Figure 1** Map of Tanzania showing the Boundaries and Geographical location

## 2.2. Status of Road Accidents global

The January 2020 World Health Organization fact states that 1.35 million people worldwide die due to a traffic accidents and 20 to 50 million suffer nonfatal injuries. The traffic accident cost the countries almost 3 per cent of their gross domestic product. It has been found that half of road accidents are among vulnerable road users, namely pedestrians, cyclists and motorcyclists. In Tanzania, 24% of all accidents are caused by Bodaboda (motorcycle). As well as 93 per cent of the world fatalities from accidents occur in low- and middle-income countries, despite having only 60 per cent of the world's autos. Death from the accident was found to mainly affect people aged 5 to 29 years old. It was found that more than 70 per cent of young adults work in the transport sector and become victims of accidents. This part of the population is severely affected by traffic accidents. This is a problem that is common in low- and middle-income countries, of which Tanzania is one.

## 2.3. The status of road accidents in Tanzania

According to the CTSR (2016, PP ix), a total of 1,390,482 violations were reported in 2015, compared to 1,125,672 in 2014. There were also 8,777 serious traffic offences reported, causing 3,574 deaths and 9,993 injuries. Every second accident in Tanzania results in a fatality. Quantitatively, the probability of dying in an accident is 0.5 or 50 per cent. The same report listed 2,749 motorcycle accidents across the country. The trend of traffic accidents in Tanzania is alarming, as reported by Citizen in June 2019. In Tanzania, from January to June 2019, four people die every day from traffic accidents. In a year, 1440 people die from traffic accidents, 120 per month and 4 per day. According to the report, the number of deaths in June 2019 was 744, down 25% from June 2018 when there were 994 deaths. A total of 1,529 people were injured in the first half of 2019. Nguyen et al. (2018) state that 49.3 per cent of Bodaboda riders suffered accidents, 77 per cent sustained injuries, and 23.4 per cent were hospitalized in the city of Moshi. In Tanzania, for example, a traffic accident occurs every 16 kilometres and, according to statistics, the probability of an accident is 0.06 or 6 per cent in Tanzania. The data send a bad signal to the Tanzanian public. SUMATRA (2017), according to the report, in 2014, Tanzania registered 512,000 cars, light quadricycles, 86 trucks and 490,000 buses. The rate of traffic accidents remains high, with an average of 4,000 fatalities per year or one fatality every 21 kilometres. There was also one accident for every three kilometres in 2015 and one accident for every two kilometres in 2014. Quantitatively, the accident probability is 0.4 or 40% per kilometre in 2014 0.3 or 30% in 2015. If you take the country's population of 45 million people by 2012 Every year 14 million people are at risk of being injured or killed by the accident. The table below clearly shows the incidence

**Table 1** Number of Roads Traffic Accidents, Death and Injury person in Tanzania 2014-2015

<b>Incident</b>	<b>2014</b>	<b>2015</b>
Accidents	15,420	87,77
Fatal Accident	3,106	29,09
Dead persons	3,857	3574
Injured person	152,30	99,93
Total	37,613	25253

Source; Crime and Traffic statistics, January-December 2015 Page 50

These statistics show how serious road accidents are in Tanzania. The question is how the community will react to these accidents. In developing countries, preparedness for hazards is not very advanced, there is no dedicated budget, little education on disaster preparedness, low-risk risk reduction strategies, and poor coordination by disaster committees. Responding to an accident had the same characteristics as preparedness. The goal of response practice is to save victims' lives and property is unattainable in developing countries. The current handling of biological hazards (coronavirus) shows the existing situation in developing countries regarding other hazards at the time of the traffic accident. To put it this way, the community response to danger is fraught with ignorance, improper, poorly coordinated, scarce resources and poor support from the disaster committees for each level of government.

#### 2.4. Major Causes of road accidents in Tanzania

According to the Traffic Police of Tanzania Crime and Accident Report (2015:p.57), there are three causes of traffic accidents in Tanzania, namely: human factors, defective motor vehicles and reported environmental factors and traffic accidents. It has been pointed out; 84.4 per cent of traffic accidents are caused by human factors, 8.8 per cent by environmental factors and 7.3 per cent by defective motor vehicles. Human behaviour causes road accidents more than any other factor. The details of the mentioned factors in each category can be found in Table 2;

**Table 2** Number of accidents by Causes in Tanzania Mainland,2015

<b>Causes by Categories</b>	<b>Number</b>	<b>Percentage</b>
<b>Human Factors</b>		
Dangerous Driving	1041	12.5
Careless Driving	1827	21.9
Careless cyclists	410	4.9
Careless Motorcyclists	2009	24.1
Over-Speeding	11	0.1
Careless Passengers	691	8.3
Unattended Cattle	20	0.2
Careless Overtaking	474	5.7
Careless Pedestrians	470	5.6
Careless Pushcart Operation	22	0.3
Intoxicates	66	0.8
Total	7041	84.4
<b>Defective Motor Vehicles</b>		
Motor Vehicles defect	502	6
Poor Motor Vehicles lighting	104	1.2

Total	606	7.3
<b>Environmental Factors</b>		
Fire	11	0.1
Road Barriers	341	4.1
Poor Road Infrastructure	298	3.6
Railway crossing	40	0.4
Total	730	8.8

Sources; Crime and Traffic Statistics Report, January-December 2015

## 2.5. Theoretical way of handling Accident

Response to traffic accidents must focus on saving lives. It was agreed that responding to threats is complex and confusing, no matter how advanced or prepared a country is. The resources needed to respond to an accident, are human resources, financial resources and physical resources. Search and rescue operations began immediately after the accident. The people around the event participate, regardless of their intellectual and moral abilities. Several activities must be carried out to ensure that lives are saved;

## 2.6. Disseminating information about the accident

All accident information must be timely, accurate and reported to the appropriate authority, from motorcycle to bus accidents. Detailed information is needed to ensure accident treatment facilities and needs. The information should include: those involved in the accident, the place and location of the accident, the number of people at risk, property, estimated damage and the condition of the victim. This information requires some facilities such as radio, cell phones, internet and other communication facilities in the accident area.

## 2.7. Search and Rescue

When responding to an accident (hazard), search and rescue are paramount. The process starts with people coming out around the accident and starts helping the victims; removing the stranded, those crying out for immediate help, children, the elderly and the disabled. Victims must receive first aid, which can be on-site first aid or off-site first aid. On-site first aid refers to the care of the victim in the area of an accident. If the need exceeds the available medical facilities, transportation arrangements are made to move the victim to other facilities with more staff. Before first aid, the victim must be classified for serious injuries. If not, a limited amount of time can be spent saving a life dead instead of an injured one. To avoid misuse of resources and time, victims are classified using the disaster triage system.

According to Coppola (2015, p.333), triage is a system whereby victims are ranked according to the severity of their injuries to ensure that the highest priority cases are transported to medical facilities before the less serious ones. In triage tagging, patients are tagged with an icon on the light-coloured forehead or a colour-coded tag. Namely, there are two types of triage; Simple triage and fast transport (START) and advanced triage. START occurs on the floor of scarves resources at accident sites and casualties are transported to other areas where facilities are adequate. The on-site process for classifying the victims is well-advanced. The victim's START tag;

**Table 3** Triage tagging categories

Symbol	Implication
D	Deceased
I	Immediately; Victim needs advanced medical care within 1 hour
DEL	Delayed; Victim needs medical care but can wait until after I victim
M	Minor; Victim can wait several hours before non-life-threatening injuries are treated

Source; Coppola (2015, p 333)

Example of advanced Triage tagging includes;

**Table 4** An example of Advance Triage tagging

Symbol	Implication
Black	Expectant; Victims` injuries are so severe they expected to die
Red	Immediately; Victims are likely to survive their injuries, but only with immediately surgery or another lifesaving treatment
Yellow	Observation; Victims are injured and need emergency medical care, but current condition is stable, must be monitored for the change in condition.
Green	Wait; victims need medical care within several hours or even days, but will not die of their injuries if left untreated in the immediately future
White	Dismiss; victims need little more than minor first aid treatment basic care not requiring a doctor

Source; Coppola (2015)

In connection with many casualties, local hospitals are required to handle the matter. The field must be close to the scene of the accident where surgical and other complex medical equipment and personnel are available. In theory, every traffic accident must be treated as it is written in the text

### 3. Results and discussion

#### 3.1. Discussion of the response to road Accidents in Tanzania

The response to a traffic accident in Tanzania is very harsh as the roadside community sees the accident as an opportunity to earn a living. The practice has become a part of life. It is extreme selfishness to put serious business in the light of profit. In this regard, whenever there is a road accident, people will come, not to save the victim and his property, but take it illegally. This practice is common even in accidents in a forest, without time you will find people coming into the area of events. The victim gets more stress than relief as a result of uncivilized practices. Most accident victims lose their property when they have an accident. Items such as a laptop, phone, luggage and money were stolen. It is good practice to notify traffic of the accident, but search and rescue operations are carried out too late. What is done immediately is stealing the victim's property and no help. Why do people steal and not help? Why does the community along the road see accidents as an opportunity?; The following section shows reasons;

##### 3.1.1. Poverty

The 2019 World Bank report shows that 10 per cent (736 million) of people live in extreme poverty and 85 per cent (629 million) of them live in two regions of South Asia and sub-Saharan Africa. World Bank Report of 2011) shows that 49.1 per cent of people (21 million estimates) live under \$1.90 a day, 79.1 per cent (34 million) live under \$3.20 a day and 93.1 per cent (40 million estimates) below \$5.50 per day. The 2019 United Nations Development Program (UNDP) report states that the HDI of Tanzania is 0.528 and is classified as Low, ranking it as 159 out of 189. Accordingly, the seriousness of poverty is well known. As has been documented, a hungry man cannot think. Hunger speaks for a man. In this case, what matters most is what is earned legally or illegally. All the time, all money-making activities are going on, whether morally acceptable or not. Poverty drives the community to become thieves. For example, long-distance drivers who travel a long distance are forced to either put a small bush at the end of the truck or travel in pairs to stop the thief. The authorities never take any serious action to stop this barbaric behaviour. It is now part of life that every accident is an opportunity to earn something, a phone, laptop or money

##### 3.1.2. Little skills and Knowledge

Despite the Disaster Management Training Center(DMTC) at Ardhi University in Dar es Salaam, no training on how to deal with natural or man-made hazards has ever been offered to the public. Also, the community along the road has never been trained to deal with accidents (hazards). If so, how can triage tags work? How can search and rescue be implemented? How can information be transmitted to the authority? It's a total disaster, and that can be more serious than the accident itself. The public has never been confronted with first aid services. The response to an accident in Tanzania is a total disaster. The simplest reaction practice is to take the property to make money. The community lacks

knowledge about START and advanced triage, and community response to accidents ultimately leads to more disasters than accidents.

### *3.1.3. Low support from Authority*

The authorities generally prepared and equipped people for the disaster. The country has a disaster preparedness committee at the lowest level of government, but those committees are dead. The committee exists on paper but is useless in practice as no formal training is offered to people, no funds are allocated to deal with disasters and no planned activities take place before and after a disaster. The small fund for combating the disaster is located at the highest level. The government does not have an educational program to educate the community about dangers, no radio program and no TV and country campaigns on how to deal with dangers. As long as the matter is handled insignificantly by authorities, the community makes less effort to prepare for, mitigate, and respond to the threat. The active instance known to townspeople is fire. It is known for its physical presence and the facilities it possesses. It is known to be in the city and not in the countryside or on the outskirts. The agency serves only 30 per cent of this country's population of more than 50 million.

### *3.1.4. The greed of getting wealth*

Some people on the street choose to steal the victim's property instead of helping because they are just greedy to get more wealth. The accident is seen as an opportunity to get more. And no serious action has been taken to address this behaviour, the greedy attitude is increasing and far-reaching from now on. As of now, the sense of humanity is diminishing as more and more people focus on their problems. Technically, the greedy get stronger and stronger as the sense of humanity wanes. The accident is called a project in some areas because people earn money once the accident happens.

### *3.1.5. The way forward*

Government must revitalize key Disaster Management Committee functions; Regional Disaster Management Committee, District Disaster Management Committee, Township Disaster Management Committee and Village Disaster Management Committee as specified in the policy. These committees must train how to use functions; Situations before the hazard, during the hazard and after the hazard. All committee members, and then the public, need to be educated on the modern approach to disaster management. The Prime Minister's Department of Disasters must launch a nationwide campaign through all media, plays, films, newspapers, articles and other relevant means to raise public awareness of hazard/disaster response, preparedness, mitigation and recovery. The community-based organization, the NGO and the private sector must be involved to ensure that there is sufficient community awareness of the disaster. The high street community needs to be educated on how to help accident victims in their areas. The government must have a budget through disaster management committees at all levels to handle all activities related to the disaster in the country. Without funds, many activities such as; Training, public education program and campaign will go nowhere. The disaster funds must be settled annually in the main budget of the government. Each level of the committee is required to create a strategic plan and an action plan to implement the annual disaster activities.

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## **4. Conclusion**

The government, CBOs and NGOs must work together to ensure the community can cope with a disaster at their location. More importantly, the community along major routes must be trained in: Disaster Preparedness, Mitigation, Response and Recovery. Disaster education should begin from elementary school through university to ensure that every person taught has adequate hazard knowledge. Disaster management committees from the village level to the prime minister's office must function as stipulated in the 2015 Civil Protection Act. The community needs to be educated on START and general procedures for dealing with accidents at their site. The government must allocate a budget for disasters and emergencies to be prepared for any unusual situation in the country.

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## **Compliance with ethical standards**

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*Disclosure of conflict of interest*

Due to the perception behind a conflict of interest and in the interest of full transparency, I reconfirm that Dr. Juma Shaban Chibololo is my co-author and collaborator on.

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