



AN INVESTIGATION ON THE FACTORS THAT AFFECT HUMANTARIAN  
LOGISTICS : A CASE OF BOTSWANA

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Further, I certify that the work is based on the investigation made, data collected and analyzed by him and it has not been submitted in any other University or Institution for award of any degree.

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## **ABSTRACT**

The purpose of this research was meant to investigate factors that affect humanitarian logistics in Botswana, with the aim of making recommendation of mitigating the challenges. The study was prompted by Lack of experience and knowledge exhibited by the Government of Botswana in dealing with the disaster that struck the country in 2017 has been a cause of concern not only to government of Botswana but to the civic society at large due to the negative effects to the affected people.

The study was exploratory, descriptive and qualitative in nature. Semi structured interviews were used to gather data. To achieve the objectives of the research the sample was composed of ten participants from five organisations. The organisations are National Disaster Management Office (NDMO), Village Development Committees, National Disaster Management Technical Committee (NDMTC), District Disaster Management Committee (District/City/town) and Red Cross Society. The ten participants were identified through purposive sampling due to their involvement in humanitarian logistics in Botswana.

Results revealed that there are humanitarian logistical problems when they attend the affected sites in Botswana. The study noted that successful disaster relief operations involve various tasks such as rescue efforts, health and medical aid, food, shelter and long-term relief activities which are heavily reliant on logistical operations of the supply delivery.

The study recommends that there is need for improvement in rapid response in disaster relief in Botswana. The study recommends that Humanitarian organisations need to engage its workers in activities that will expose them in experiences that promote logistical understanding

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## Chapter 1: Introduction

### 1.1 Overview

The study focuses on the factors that impact on humanitarian logistics in Botswana. Thomas, (2003:p.3) views “Humanitarian logistics as the processes and systems involved in mobilizing people, resources, skills, and knowledge to help vulnerable people affected by natural disasters and complex emergencies” Hundreds of millions of people are affected by disasters each year (Rodman, 2016). Studies on humanitarian logistics have noted that in the past forty years humanitarian logistics has gained a lot of attraction in arena of human endeavor and scholarly research. The interest or attention by both scholars, governments and voluntary organisation came about as a result of a number of disasters that occurred have occurred in the recent past and the devastating effects they have triggered ( Baidoo ,2017).

### 1.2 Background

According to Baidoo (2017) Natural disasters are catastrophes that are beyond the control of humans. However, the effects of natural disasters can be reduced through rapid response and effective post-disaster management strategies. Despite this, humanitarian organizations are faced with bottlenecks and disruptions in terms of receipt, warehousing, transportation, tracking, delivering of relief items and post-disaster strategies making relief efforts inefficient and ineffective (Christopher and Tatham, 2011).Lack of experience and knowledge exhibited by the Government of Botswana in dealing with the disaster that struck the country in 2013 and subsequently in 2017 has been a cause of concern not only to government of Botswana but to the civic society at large due to the negative effects to the affected people. It is under this background that the study seeks to investigate the factors that impact on humanitarian logistics in Botswana. Lack of experience and knowledge exhibited by the Government of Botswana in dealing with the disaster that struck the country in 2013 and subsequently in 2017 has been a cause of concern not only to government of Botswana but to the civic society at large due to the negative effects to the affected people. The failure to deal with the disaster that befell Botswana should be appreciated on the light that the magnitude of such disaster that struck Botswana had not been experienced in the past hence the high level of unpreparedness resulting in the high impact on the affected

communities. It should be noted that, Botswana does not have a standard disaster management strategy for using supply chain management (SCM) techniques to provide relief to populations affected by disasters. Furthermore, it should be noted that the coordinators within the humanitarian sector, organizing logistics during a relief efforts in Botswana found it to be a daunting task which resulted in the loss of life and resources it was not done quickly and effectively. In line with the SADC Disaster Management Steering Committee (2001) pronouncement that when disaster strikes community preparedness measures should adopt a bottom-up approach prompted Botswana to follow suit. The bottom up approach entails the local authority which is affected providing the preliminary response and emergency services. However according to Maripe and Maundeni (2012) the bottom-top approach has not worked for Botswana but lead to increased vulnerabilities, casualties, and unnecessary expenditures. It is against these multiplicities of challenges faced by Botswana that the study attempts to investigate contextual factors that impact humanitarian logistics in Botswana in order to come up with solutions that will facilitate the conditions for an effective flow of goods and materials to areas of disaster

### 1.3 Purpose of the Study

The purpose of the researcher study is meant to provide solutions to the challenges faced by Botswana decisively dealing with the disaster when it struck the country. In the past Botswana has faced numerous challenges which include failure to provide rapid and promptly responds during times of distress, resulting in the suffering of the affected people. At government level the study may inform policy makers on better means of dealing with relieve operations during times of disaster in Botswana in order to mitigate human suffering.

At District level where the coordination of relief operation takes place the findings and recommendation of the study may provide robust strategies or measures to be applied during natural calamities such as periodic droughts, floods and storms, veldt fires, lightening, animal and human related diseases. He the study sought to make a contribution in addressing the shortcomings of current humanitarian logistics efforts which have resulted in untold suffering of people.

The study was also meant to expand the body of knowledge on humanitarian logistics at the sometime providing new insights on humanitarian logistics in Botswana as there is a paucity of literature on the subject matter, since the literature available lacks contextual applicability in the context of Botswana as it was researched in a different geo-political environment.

The purpose of the study is also meant to address problems related to humanitarian logistics not only in Botswana but in other parts of the world.

#### 1.4 Research Objectives

- Examine the concept of humanitarian logistics
- Examine contextual factors that impact on humanitarian logistics in Botswana
- Assess the complexities of humanitarian logistics
- Examine supply chain management and humanitarian logistics
- Establish the effective strategies should be put in place in order to ensure rapid response in disaster relief in Botswana?

#### 1.5 Assumption

- There are government structures and nongovernmental organisations established for disaster management
- Botswana faces poor response and delays in reaching out to areas of disaster in times of disaster
- Botswana relies on donors in terms of relief aid which derails rapid response to disasters
- Complexities of humanitarian logistics are contextual, which means that they are country specific.
- There is a symbiotic relation between supply chain management and humanitarian logistics
- Botswana is facing challenges of coordination of organisation in the disaster relief operations as they seem to be fragmented.
- Botswana lacks capacity to rapidly deal with disasters when they occur, such as storage facilities and buildings for providing shelter during periods of disaster especially in villages.

## CHAPTER 2: LITERATURE REVIEW

### 2.1: Introduction

This chapter sought to review what authorities say about factors that affect humanitarian logistics in Botswana. Theoretical framework which guided the study was outlined, the concept of humanitarian logistics, contextual factors of humanitarian logistics in Botswana, the complexities of humanitarian logistics, supply chain management and humanitarian logistics and establishment of effective strategies that should be put in place in order ensure rapid response in a disaster relief in Botswana. This literature review was intended to identify the critical requirements for the initial stages of emergency response, analyze barriers to efficient relief logistics, and propose solutions to those barriers. The chapter concluded by providing the examination of the current practices of a few prolific humanitarian organizations and a brief consideration of benchmarking. Humanitarian logistics plays an integral role in response and recovery following a disaster. Humanitarian logistics involves the activity of organizing the movement, of equipment, food staffs, clothing and other provisions to the affected areas despite all the odds stacked against such movement. Primarily, these resources are required to save lives and sustain the affected population until they begin the process of rebuilding. The critical resources also include search and rescue services, food, electricity, water, medical aid (lifesaving as well as epidemiological), blankets, temporary shelter, and sanitation (garbage, sanitary sewer). These elements may consist of a combination of personnel, equipment, and supplies. The importance of logistics to humanitarian response cannot be ignored; without the rapid establishment of supply and distribution channels for aid resources, the disaster will certainly be more protracted and damaging for the affected population.

According to Baidoo (2017) Natural disasters are catastrophes that are beyond the control of humans. However, the effects of natural disasters can be reduced through rapid response and effective post-disaster management strategies. Despite this, humanitarian organizations are faced with bottlenecks and disruptions in terms of receipt, warehousing, transportation, tracking, delivering of relief items and post-disaster strategies making relief efforts inefficient and ineffective (Christopher and Tatham, 2011).

Logistics in humanitarian work are a key factor for effective relief in affected areas. Botswana is not in isolation as far as disasters are concerned. It is therefore one of its responsibilities to make sure that it is prepared to act when disaster strikes.

## 2.1 Humanitarian logistics

Humanitarian logistics could be defined as logistical activities that comprise planning, implementing and controlling the efficient, cost-effective flow of and storage of goods and materials as well as related information, from point of origin to point of consumption for the purpose of assisting the vulnerable people (Thomas and Kopczak, 2005). Goods and materials in this context are better known as humanitarian aid in the forms of food, water, medicine, shelter and other supplies. Studies have noted that, despite the importance of supplies in humanitarian logistics most of the humanitarian supply chains are unstable, unpredictable and stiff to respond to the needs of the affected victims (Yadav and Barve, 2015). The challenges are further compounded by the nature of relief operations which is not under the control of single person or organisation (Stephenson, 2005). Studies by Christopher and Tatham, (2011) have come to the conclusion that, the loss of lives could be averted and an excessive level of human misery and grief would be lessened if all the stakeholders participating do play their part to the fullest. According to Baidoo (2017) eighty percent of disaster relief effort is premised on logistics hence the only means to accomplish efficiency and effectiveness in disaster relief operation is through humanitarian supply chain management. the link of humanitarian supply chain management and logistics has been proven in Katrina and Asian tsunami which have demonstrated that the problem of failing links within the logistical chain is quite common at times of disaster (Van Wassenhove, 2006).

Humanitarian supply chain management (HSCM) involves the management of the process and method of marshalling individuals, funds, skills and knowledge to assist vulnerable people affected by disaster (John, Ramesh & Sridharan, 2012). Clienteles in disaster supply chain comprise the populace at the affected region, including intermediate clienteles in local and global storage amenities. Their needs change significantly according to disaster types and the phases in the disaster timeline. In cases were disaster has strike it is the duty of the disaster management

committees, and government organs responsible for disaster management to mobilize the goods, money and to manage the services to affected people. The case in point was the 2004 Asian tsunami which resulted in the largest volume of humanitarian assistance in the history, which had a value of more than USD 13 billion (Thomas and Fritz, 2006). Disaster relief operation is a multi-dimensional activity which involves rescue operation, provision of medical aid, food as well as shelter. In order for relief operations to be successful it is excessively dependent upon the logistical operations of the supply delivery (de la Torre et al, 2011). In collaboration Van Wassenhove, (2006) state that, humanitarian supply chain is the nerve centre of disaster relief as a result of its role of serving like a bridge which link disaster preparedness and response as well as between procurement and distribution (Van Wassenhove, 2006).

All disasters are viewed as an assessment of the level of preparedness of disaster management systems, as they present a challenge to the various players in the relief operations, particularly the ability of diverse players to work together (Tomasini and Wassenhove, 2009). It should be noted that in the humanitarian logistic operations have numerous stakeholders who are directly or indirectly involved in the relief tasks namely government, aid donors, non-governmental organisations, military, logistic companies, and aid agencies (Thomas and Mizushima, 2005). Ordinarily these disaster relief organisations pose a no motive to carryout relief operations as a collective, however due to the nature of their operations when disaster strike they realize the need for joint operations resulting in them combining their capacity and capability to relieve human suffering (Holguin-Veras et al, 2012).

Despite the fact that the relief operators are influential in the effective response, many a times these operators create confusion as they compete with each other for funds, resources, critical infrastructure and decision-makers' attention (Thomas and Kopczak, 2005). Notwithstanding the frequency and impact of disasters, humanitarian organizations today are under continuous pressure of improving their logistics performance. Departing from this need, this study aims to investigate on factors that affect humanitarian logistics in Botswana. Therefore, it is imperative for humanitarian sector to use the efficiency and effectiveness of a particular relief operation using its experience and resources to assist the need

When a disaster strikes be it natural or man-made, the ultimate aim of management stakeholders would be to protect and assist the civilian population in the affected regions. Successful disaster relief operations involve various tasks such as rescue efforts, health and medical aid, food, shelter and long-term relief activities which are heavily reliant on logistical operations of the supply delivery (de la Torre et al, 2011). Effective and efficient humanitarian supply chain is imperative in saving lives and reducing suffering for those people affected by disaster (Gizaw and Gumus, 2016). Notwithstanding the increasing pressure from the donors to prove that aid and goods are really reaching the ones in need during emergency relief operations and in good condition.

The term “disaster” is usually applied to a breakdown in the normal functioning of a community that has a significant adverse impact on people, their works, and their environment, overwhelming local response capacity. This situation may be the result of a natural event—say, a hurricane or earthquake—or it may be the result of human activity. During the 1990s, the number of people affected was nearly three times higher than during the 1970s (Fisher, 1997). It is therefore very critical for the humanitarian personnel in Botswana to be prepared in terms of aid as disasters can occur any time anywhere.

Each disaster is unique—its effects not only have to do with the type of natural or man-made phenomenon, but also with the economic, health, and social conditions of the area. The World Bank reports that the risk of death, destruction, and suffering has increased due to accelerated changes in demographic and economic trends (Kreimer and Munasinghe, 1991). Botswana is not left out so there is a generally increased and unique disaster that may occur in the country. The number of people affected by disasters, that is, events with negative consequences for humans, has risen at an alarming pace (Walter, 2003).

## 2.2 Contextual factors that impact on humanitarian logistics in Botswana

In the case of complex disasters, malnutrition, overcrowding, and the lack of basic sanitary conditions are frequent. In such circumstances, outbreaks of cholera and other diseases occurred due to inadequate provision of humanitarian relief. This will be as a result of factors that will have affected the humanitarian logistics. Around the world, the number and intensity of natural

disaster increases every year (Whybark, Melnyk, Day and Davis, 2010). As such population displacements and environmental changes may increase the risk of a spread in communicable diseases. Immediate and potential health hazards in the aftermath of a disaster seldom materialize simultaneously; they tend to strike at different times, and with variable intensity within the affected area. Thus, injuries tend to happen at the time and place of the impact, demanding immediate medical attention, while the risk of an increase in communicable diseases evolves more slowly and reaches maximum intensity with overcrowding and breakdowns in hygiene.

In order to achieve disaster preparedness, there need to estimate the needs of survivors, as well as the likely capacities of the planned supply chains. This allows preparations regarding the capacities of facilities, and the availability of other resources and personnel. Humanitarian logistics is one of the most challenging issues in the field of logistics, and such operations are renowned for their complexity. The special challenges are due to some unique and complicated characteristics, the delivery of multiple commodities, through potentially multi-modal networks, under very strict time constraints, requiring the coordination of multiple disparate actors (Wisinee Wisetjindawat et al, 2014).

After a disaster, the need for food, clothing, shelter, and primary health care is always vital. The displaced often have the resources to satisfy some of their own basic needs. Moreover, it is common for the victims of a disaster to recover quickly from the initial shock and participate spontaneously in search and rescue efforts and other relief initiatives, such as the storage and distribution of emergency supplies. Food shortages in the aftermath of a disaster are generally due to two causes. The first is the destruction of food stocks in the affected area, which combines with personal losses to reduce the immediate availability or affordability of food. The second is disorganized distribution systems, which may contribute to shortages even if there is no absolute scarcity of food (Wisinee Wisetjindawat et al, 2014)

In the case of mass displacements of people, the victims do not carry much in the way of provisions, if they carry anything at all. All too frequently, supplies in the population centers that play host to them are insufficient and are quickly depleted. Water supply and sewage systems are especially vulnerable to natural disasters. The interruption of such services leads to severe health



risks. These systems are widely distributed, often poorly maintained or in disrepair even before a disaster strikes, and exposed to a variety of hazards. Deficiencies in the quantity and quality of drinking water, or the safe disposal of fecal and other human waste, bring about a degradation of sanitary services, which in turn contributes to creating favorable conditions for the spread of water-borne diseases. There is need for a national disaster prevention plan, which is authorized by the disaster preparedness law that will be responsible for such emergencies (Fukami and Hisamoto, 2010).

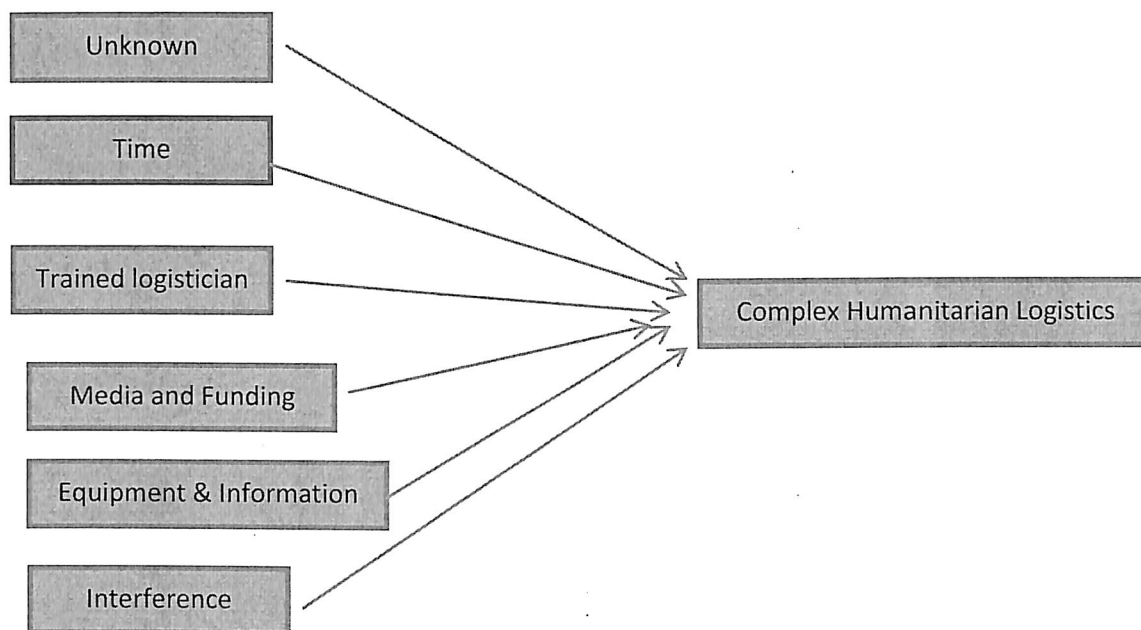
In the industrialized or urbanized areas of developing countries, a significant increase in mental health problems often accompanies the long term rehabilitation and reconstruction phase. Treatment must be provided to the affected at the most short possible time. Natural disasters frequently cause severe damage to key facilities, affecting the health of those sectors of the affected community that depend on the services provided. In the case of hospitals and health centers whose structure is unsafe, natural disasters put its occupants at risk and limit institutional capacity to provide services to the victims when need arise. These destructive effects also have an impact on infrastructure, equipment, and other useful resources for managing the arrival, storage, and distribution of emergency supplies. Challenges to humanitarian logistics include physical destruction, which limits logistical pathways (Samii, 2010). Delivery of resources to such areas become difficulty and in some cases not possible.

### 2.3 Complexities of humanitarian logistics

Logistics generally refers to a system whose parts interact smoothly to help reach a goal promptly and effectively. While this is an immensely productive approach, its downside is that the failure of even one of the components can affect the final result. In emergency relief operations, logistics are required to support the organization and implementation of response operations in order to ensure their timeliness and efficiency. Mobilizing the staff, equipment and goods of humanitarian assistance organizations, the evacuation of the injured or the resettlement of those directly affected by the disaster, requires a logistics system to maximize effectiveness. The speed of humanitarian aid after a disaster depends on the ability of logisticians to procure, transport, and receive supplies at the site of humanitarian relief effort (Kovacs and Spens, 2007)

Some of the complexities of humanitarian logistics are summed up by Robert et al (2013), the factors are captured below.

**Figure 1. Complexities of humanitarian logistics**



According to Robert et al (2013.p.117) “Humanitarian logistics is an incredibly challenging process. A great deal of the practitioner-oriented literature stresses the complex nature of disaster relief and there is a dearth of logisticians who can plan, assess, and coordinate human and material resources for relief operations”. Unlike logisticians in the private sector, humanitarians are always faced with the unknown (Van Wassenhove, 2006). Other challenges relate to media and funding, since donors are more prone to respond to the call for donation when there is media hype, furthermore funding for necessary equipment and information technology has been limited making relief operations to be difficult to accomplish.

Emergencies and disasters place exceptional demands on the logistical and organizational skills of the affected country. This challenge is felt with particular intensity in the health sector, where deficiencies in the flow of supplies may have dire consequences”. The problem does not merely lie in the procurement of emergency goods and equipment. Special attention must also be paid to

the management of those supplies already at hand or in the pipeline. Supplies may be piling up at the central level while acute shortages are painfully evident at the emergency site. Unsolicited—and often inappropriate—donations also compete for storage and transport facilities that may be in short supply. Pre-positioned warehouses at strategic locations are essential for this purpose to ensure the availability of supplies when required and to facilitate faster responses (Balcik et al., 2010).

It is only in exceptional circumstances that actively antisocial behavior such as looting takes place. However, sometimes individuals' spontaneous reactions, while perfectly rational from the point of view of self-interest, can prove detrimental to the community as a whole, as when public utility employees do not show up at the workplace until they have taken steps to ensure the safety of their family and possessions. When large population displacements take place, whether spontaneous or organized, humanitarian assistance becomes crucial—and urgent. People tend to flock to urban areas, where public services do not have the capability to handle sudden, very large increases in the population served, leading to increased mortality and morbidity rates. If the disaster destroys most homes in a given area, large local “migrations” may take place within the same urban environment, as victims look for shelter in the homes of relatives and friends. The basic principles of managing the flow of goods, information and finances that have been established by commercial logistics are also valid for humanitarian logistics for smooth movement of resources (Kovacs and Spens, 2007).

Humanitarian personnel may be unfamiliar with standard accounting and stock-control procedures. Alternatively, these procedures may be overlooked under the pressure of the emergency. Accountability and a thorough paper trail are likely to fail at exactly the moment when the mass media are most eager to find evidence of misappropriation of external assistance, and thus perpetuate the myth of local incompetence or, worse still, corruption. Humanitarian logistics, as well as business logistics, encompasses a range of activities, including: preparedness, planning, design, procurement, transportation, inventory, warehousing, tracking and tracing, distribution, recipient satisfaction bidding and reverse bidding, reporting and accountability, and customs clearance (Gustavsson, 2003).

### 2.3.1 Supply chain management and humanitarian logistics

Supply chain logistics in emergency situations has the purpose to deliver the right supplies, in good condition and the quantities requested, in the right places and at the time they are needed. The links in this logistics chain are not necessarily sequential or linear; indeed, they are often carried out in parallel. These unique characteristics of humanitarian supply chains require a high level of agility, flexibility and effectiveness (Holguin---Veras et al., 2012).

The purpose of the procurement process is to make sure that the organizations involved in relief management have the resources needed to meet identified needs. This in turn requires identifying the sources of those goods and services and the way in which they will be acquired. On the other hand, as have been discussed by some researchers, humanitarian supply chains operate under highly uncertain conditions relative to commercial supply chains (Wassenhove, 2006).

Humanitarian supply chain performance is measured in three aspects delivery, reliability, flexibility and responsiveness. In humanitarian actions, delays in delivery or relief can cost lives. Therefore, efficiency and reliability in supply chain is a key success factor, because it ensures the smooth flow of goods and services. To save lives and alleviate suffering, the response to international emergencies must be timely, effective, appropriate, and well organized (Heasip et al, 2004). Therefore, formulation of an appropriate humanitarian supply chain performance model would help humanitarian aid actors in Botswana in their decision making to improve the efficiency and effectiveness of relief operations to its citizens taking into account the issues of transparency and accountability. This will further enhance and reinforce the disaster planning and preparedness initiatives to be undertaken when faced with calamities in future.

A transport strategy must not only take into account the means of transport but also the actual possibilities of getting supplies from point A to B, as well as alternatives for the prompt, safe delivery of relief assistance. Transport Service providers identified a number of policies and regulations which constrain cross border transport operations, limit vehicle and crew utilisation and raise transport costs. These service providers should request government policy makers to consider review, revise and or eliminate such constraints. There are many humanitarian organizations operating in the Developing World, Botswana included (Kariuki, 2010).

Government situational factors, such as the leadership style, the national regulations toward relief organizations, the efficiency of the state, the level of corruption, are factors which influence organizations' operational decisions and their ability to conduct humanitarian logistics operations. A government which has doubt in the organizations' activities towards relief will, for example, tend to restrict the entry of staff and goods in the country in the aftermath of a disaster (Seekins, 2009). This will affect the intended beneficiaries of the humanitarian aid. A cooperative government will welcome relief organizations on its territory (McLachlin and Larson, 2011; Van Wassenhove, 2006). The security context in a country is also dependent from the government (or its absence), and strongly impacts the performance of the logistics response (Long and Wood, 1995). The Botswana government should therefore let the humanitarian organizations perform their duties without fear and favour.

Warehouses are vital for the purpose of storage as to protect the emergency supplies in an organized, systematic fashion until they can be delivered to their ultimate beneficiaries in the time of need. Storage must also take into account reserve supplies, or stockpiles, for future or unforeseen needs. Disaster demand forecasting is difficult due to the lack of historical data. Therefore Botswana humanitarian logistics should include such historical data in their data base for easy reference when disaster strikes. However, disasters are unique even if they occur in the exact same location, since other factors such as population structure or economic conditions could have changed since the previous occurrence. Hence, historical data is not always very useful for predicting future demand. Improved information on real demand would also facilitate resources needed at a given time. Quick estimates of needs calculated when a disaster strikes often incorporate errors. There are wastage rates of up to 30% in aid delivery in some post-crisis situations. However, if real demand was known (or at least reliably estimated) and measured, these errors could be reduced or eliminated, leading to more efficient operations and potentially decreasing suffering on the affected and avoid wasting resources (Pettit and Beresford, 2009).

One other critical area that affect humanitarian relief operations is delivering aid to the people affected by a disaster, or at least to the organizations entrusted with managing emergency supplies, in a way that is proportional to existing needs, fair, and properly controlled to prevent abuses or waste through corrupt means. Infrastructure situational factors, such as the availability

of a road network, railway, airports, power supply, play an important role in the performance of humanitarian logistics. Existence of a well-developed road infrastructure will, facilitate smooth logistical operations, while a poor road network tends to disrupt and impact negatively the distribution of relief items. The presence of an airport close to the disaster location will facilitate a quick delivery of relief aid (Chakravarty, 2014). There is need for the government of Botswana to increase the number of airports in the country for easy transportation of goods and services during a disaster.

It is important to underscore the fact that transport, storage, distribution and administration are components of humanitarian aid relief and are closely linked. The failure or ineffective functioning of any of the links in the chain will affect overall performance. For instance, if the transport of a load of supplies has been organized correctly, but upon arrival it turns out that no provisions were made for storage, the efficiency of the transport effort will have been to no avail. Alternatively, if there are enough resources to cover the needs of an affected area, but no transport to take them where they are needed, the success of the other efforts will be put to waste. One missing link is all that is needed for the chain to break. Emergency humanitarian logistics operations frequently require the involvement of several governments and independent NGOs, as well as the use of a number of transport modes (Beresford and Rugamba, 1996). So there is also need to collaborate as each unit has a part to play for effective humanitarian relief to happen as intended.

However, they must not be considered as separate activities but integrally, due to their complex interrelationships. Although a general coordinator must keep track of all the threads, no one could expect a single individual to micromanage the entire process. Accordingly, someone should be responsible for procurement, transport, storage, and distribution. Humanitarian logistics is characterised by large-scale activities, irregular demand and unusual constraints (Beamon and Kotleba, 2006). It is therefore critical to have a specialist in each department for effective supply of goods and services on the time of need.

Accordingly, the study by Sapir (2011 cited in Scarpin & Silva, 2014) indicates that 207 million people had been affected by a natural disaster in 2010, and 296,800 of them have lost their lives and about \$ 109 billion dollar destruction in assets was registered worldwide. During a disaster, communication is as important as food, water and other critical resources. A disaster can damage telecommunication infrastructure. If it happens in a densely populated area, thousands of people may try to make calls at the same time thereby overloading the system. Humanitarian supplies need robust equipment that can be set up and dismantled quickly enabling them to be extremely adaptable and prepared for the unexpected as circumstance scan change very quickly from one moment to the next. Advanced technological equipment and technicians are needed at such times. There are greater issues of safety as they may be operating in a politically volatile climate. They often work under high levels of uncertainty in terms of demand, supplies and assessment. Then there is the added pressure of time which, in this context, is not just a question of money but a difference between life and death.

Disaster management is primarily a national responsibility. While the massive inflow of donations may occasionally exceed the capacity of the affected country to absorb them, the most effective and appropriate response by the international community and humanitarian organizations is to contribute to capacity building at the national level. Thomas and Kopeczak (2005) confirmed the existence of many problems with emergency relief and lifesaving process of disaster affected people that stemmed from logistics related problems in humanitarian aid organizations. Supply management must therefore be the focus of an integral approach that looks at all the links in the sequence and never loses sight of their interdependence. This is known as supply chain logistics.

### 2.3.3 Strategies to ensure rapid response in disaster relief in Botswana

The handling of those supplies employed by relief organizations in their aid operations; require an organizational structure to ensure the efficient management and utilization of resources that in emergency situations, almost by definition, tend to be limited. Similarly, a study by Kunz and Reiner (2012) identified four external factors affecting the performance of humanitarian logistics,

namely, environmental situational factors, governmental situational factors, socio-economic situational factors, and infrastructural situational factors.

Humanitarian supply logistics cannot be improvised at the time of the emergency. Botswana government and organizations must see it as a cornerstone of emergency planning and preparedness efforts. Employing resources appropriately, and being able to secure those that are not at hand, depends on first identifying their availability and location, as well as the sources for obtaining them. All those activities demanded by logistical deployment during an emergency must be prepared, understood, and tested in advance and make necessary adjustments were needed. Similarly, in the case of Botswana, slow offloading of supplies and limited availability of trucks hinder timely dispatch of newly arrived goods from ports to regional warehouses which in turn affects humanitarian logistics performance (USAID, 2016). Botswana should also learn from such history and therefore should prepare itself for such calamities. Effective humanitarian relief management is based on anticipating problems and identifying them as they arise, and providing specific supplies at the right time where they are most needed.

Logistical activities have to be planned, since adequate preparations are essential to a smooth operation. It is indispensable to renounce the commonly held notion that transport and other arrangements can be improvised, depending on circumstances of the affected location when disaster strikes. Planning is both necessary and practical, since it is generally necessary to foresee the types of disasters that may affect a given location and the needs that such disasters will be likely to engender. It is extremely important and necessary that a distribution center towards environmental disasters cases must take into account a couple of aspects, such as location, access to large vehicles, platforms to unload the goods, size sufficient to store donations and how they will be distributed to the intended beneficiaries (Scarpin & Silva, 2014).

In fact, logistics should be an active component of any national emergency response plan, as well as of the individual plans of disaster response organizations and key institutions such as schools and health establishments. Logistics must be closely linked to all other operational activities in the context of responding to a given emergency. However, the state of the aforementioned challenges varies across humanitarian organizations (Kovacs and Spens, 2009 cited in Demeke, 2016).



Research found out that the humanitarian logistics is not directly related to the interaction process with the donors and does not have contact with authorities who plan and implement policies related to the flow of materials, information, and funds from donors to beneficiaries. They further investigated that the humanitarian logistics does not include the capacity management process of field officers and local institutions as well as the identification process on situation and location of disaster affected USAID (2016) further more they found that lack of funding as a challenge to respond to humanitarian crisis in the affected area hence the need to source funds well in time before the disaster strikes (USAID, 2016). Therefore, it is clear that to mitigate disaster caused humanitarian crisis, effective and efficient humanitarian logistics system need to be established in Botswana. In doing so, the aforementioned challenges should be transformed to opportunities. This necessitates profound inquiry which will be able to determine the extent to which the determinant factors influence humanitarian logistics performance among humanitarian aid organizations.

Planning and anticipation are vital to an effective logistical system. The plan must be based, first of all, on a good working knowledge of the geographical, social, political and physical characteristics of the area where the operations are to take place. Such a plan must not only be well thought out in advance, so that it can run smoothly it must, above all, be clearly understood and accepted by all stakeholders in any future relief operation.

The plan must provide clear answers to the following questions:

- >Which tasks must be carried out? How do they relate to all the other activities, and what are the correct sequences for carrying them out?
- >Who will be responsible for performing such tasks? (Rather than individuals, what must be identified here are organizations or departments.)
- >Who will be in charge of the overall coordination of the logistical system?
- >What resources are needed? How, when, and where can they be procured?
- >What alternative actions can be implemented if the system is somehow disrupted?(Tomasini and Van Wassenhove, 2009).

Preparedness must also be based on the vulnerability and resource assessments normally carried out to develop a national or regional emergency response plan. it should be noted that logistics has to be a key component of any such plan. Preparatory activities must include the following:

>Assessing the vulnerability of key infrastructure

>The goal is to identify the strengths and weaknesses of public works and strategic structures of the country

>highways, water supply systems, schools, hospitals

>as well as alternative actions that may be required should the infrastructure collapse. Specific actions would include:

>Systematically mapping and evaluating national transport infrastructure (ports, airports, highways, railroads, and waterways), taking into account the capacity and potential weaknesses of strategic routes, possible bottlenecks (bridges, ferries), availability of communication resources, and risks to the infrastructure in the event of an emergency. The degraded infrastructure concerns on road network, railway, airports, power supply, warehouses, communications lines, etc. that are damaged in the disaster or were non-existent to begin within the affected region become a great obstacle for the performance of humanitarian logistics (Tomasini and Van Wassenhove, 2009).

It is essential to determine the vulnerability of ports and airports to natural disasters. There is need to consider, for instance, the exposure of hangars and warehouses, or loading and fueling equipment, to the impact of a hurricane or an earthquake;

>Analyzing the historical meteorological records of the country or region to determine the impact that severe weather might have on the capacity of the transport system at different times of the year

>Regularly monitoring major new construction or changes to existing structures that might cause bottlenecks or the temporary need for rerouting, e.g., changes in a bridge's weight or width restrictions, the closure of a route due to road repairs, and so on.

>Determining the availability of strategic resources for logistical support

>These resources are constantly changing, so they must be reviewed frequently to keep the information as up-to-date as possible. The review must also involve the private sector, the public sector, and national and international nongovernmental organizations within Botswana (Van Wassenhove, 2006).

It is also very crucial to consider the following points in order to ensure a rapid response during a disaster;

>Taking stock at the national level of the location and sources of key supplies—including drugs and medical supplies, food, clothing, fuel, and rescue equipment. The inventory must also determine how long it would take for critical supplies to be delivered to their required destinations

>Analyzing the capacity of the transport system for moving people and supplies

>assessing in detail the country's transport capacity, such as the size of fleets, their type and capacity, location, costs, and availability

>Assessing potential sites for logistic bases, supply distribution centers, and fuel distribution points

>including public and private facilities, large storage complexes, factories, and other facilities that might be adapted to support these purposes

>Assessing the availability of spare parts and repair services— including private and public repair shops

Other transport options: Determining alternative routes and options, such as waterways, in the event of an emergency.

>Determining the capacity of ports and airports to handle emergency supplies under different scenarios: Ports: Examining the capacity of port facilities to handle the arrival, storage, and flow of consignments, including repackaging and distribution. A study by Van Wassenhove (2006) attested that the most of humanitarian organizations have problem on availability of funds in order to train and improve the capacity of logisticians. As result logistics operation would not be better prepared and effective (Thomas and Kopczak, 2005). The government of Botswana is in this case aged to provide funding for training and workshops for humanitarian logistics personnel.

It is very important for international agencies and nongovernmental organizations to know the government's emergency response policies and plans. Since government disaster response agencies are the ones entrusted with coordinating relief efforts, it is crucial for the organizations that take part in these efforts to establish solid links with the local or national agencies within Botswana. The contacts can also be used to negotiate mutual cooperation agreements for emergency situations, such as providing tax-exempt status to humanitarian supplies, priority

treatment at customs, and so on. All the information compiled and the activities carried out at the planning and preparation stage should serve as the basis for the development of the logistics plan, which must spell out procedures, responsibilities, and timetables for implementation. Such arrangements can only be put in place if the government of Botswana is invited to humanitarian meetings and thereby discover the critical responsibilities that they have to undergo in support of the programs, not only lack of funding, but also unsolicited donations is also the other major causes of operation bottlenecks in disasters (Tomasini and Wassenhove, 2009).

Assessing logistical and supply needs is crucial to determine as accurately as possible the needs of the population after a disaster, the availability of local capacity and resources, complementary capabilities and resources required for meeting those needs. Such assessments should be fully integrated into the general needs assessment process that is carried out in a disaster area to determine the type and severity of the damage and the most urgent intervention priorities. The quality of this assessment is very important, since requests for supplies will be based on the disaster situation as identified on the ground. It should be emphasized that the need for accurate assessments should not lead to paralysis. While assessments are the tool that enables humanitarian relief personnel to identify the affected sectors and the nature of the damage, and to quantify and qualify more precisely the type of assistance required, there is no need for them to be completed before the most pressing relief actions are undertaken (Girma, 2016).

Humanitarian logistics in Botswana has to come up with needs assessments plan that should make it possible to answer questions such as the population and their needs in comparison with what is available in terms of operations, capacity as in storage as well as factors that may hinder relief efforts with social, cultural as well as environmental characteristics of the potential disaster area that may have a bearing on the effectiveness of the program. Infrastructure such as roads, warehouses, communication lines and others are some of the factors that may hinder efficient performance during a disaster. It is important to determine not just the needs of the affected population, but also of the organizations in charge of providing relief assistance. There is also need know that disasters are dynamic, changing processes. Accordingly, an assessment of this

sort must not only help to identify the current situation, but also to foresee likely needs in the future (USAID, 2016).

In order to provide the most appropriate and effective assistance to the affected population, it is imperative to identify and understand their social and cultural customs, as well as environmental characteristics of the area they occupy. In Botswana there are different tribes from different cultures therefore the need to identifying the population's dietary habits, including the types of food they will not consume for religious, cultural, or traditional reasons, the kitchen utensils they use for cooking, and any other relevant information that can help determine what kind of assistance to offer and what kind to avoid. Identifying local and regional producers before asking for food assistance or negotiating the acquisition of food in other regions become a crucial aspect (USAID, 2016).

The actors who intervene in relief operations are diverse, with different mandates and working methods. Although they all share the desire to help, lack of coordination is common in emergency situations. Disputes between organizations, or the unwillingness to share information and work side by side, can delay the provision of care to disaster victims, lead to duplication of efforts, and waste valuable resources. To prevent this predicament, and to maximize available resources and expertise, relief efforts should be launched in a spirit of coordination. This will be possible to the extent that participating organizations know each other, share information, identify and acknowledge their respective strengths, and explore ways of collaborating and supporting each other (Girma, 2016).

Before a disaster, logistical procedures and activities must be planned. Improvised procurement and transportation activities are less effective. A plan includes what tasks are to be done, what part of the organization will be responsible, and how to procure needed resources. They must also have a national or regional plan based on the vulnerabilities of the infrastructure, the logistical support in the area, and governmental emergency response abilities. It is not possible to anticipate how crises evolve, but it is advantageous to have a plan. If proper planning is in place with realistic strategies in place, implementation can be less challenging (Koech, 2005).

When disaster strikes and the needs peak, it is already too late to develop solutions that were not in place before. Even though every disaster may be different, the process of responding to them remains relatively similar in all cases. A needs assessment must be carried out to determine what goods and services are required. Donations and procurement processes are mobilized to meet those needs. Trained staff is assigned to receive and distribute the goods, while specialized teams carry out the services (e.g., medical, telecommunications, water and sanitation). Embracing supply chain management as a central function to respond to disasters is a process humanitarian agencies only formally started in the last decade. Focusing on supply chain structures and processes to respond to disasters is important to improve preparedness. Special reference must be made to the traumas that are the result of contact with the horrors of armed confrontation and other forms of extreme violence. The violent death, disappearance, or injury of relatives and friends aggravates the trauma, which generally calls for protracted therapy. Reviewing government policies, plans, and preparations for adjustments in humanitarian logistics should be made a priority in Botswana (Girma, 2016).

#### 2.4 Summary

This chapter was focusing on introduction to the chapter then theoretical framework used in the study also the concept of humanitarian logistics, contextual factors of humanitarian logistics in Botswana, the complexities of humanitarian logistics, supply chain management and humanitarian logistics and establishment of effective strategies that should be put in place in order ensure rapid response in a disaster relief in Botswana were outlined.

## Chapter 3: Research Design, Methodology and Plan

### 3.1 Introduction

This chapter describes the methodology used for this study. It looked at the research paradigm, research design, sample, research instruments, ethical considerations, data collection procedure and data analysis.

This research will adopt the exploratory research design in leading to an explanatory conclusion. It seeks to evaluate factors that impact on humanitarian logistics in the supply chain management in Botswana

Qualitative research has been chosen for this study since this study intends to obtain the perceptions of people factors that impact on humanitarian logistics in the supply chain management in Botswana, which is in line with qualitative. In support Lincoln and Guba (1985) state that, qualitative research is a form of inquiry that analyzes information conveyed through language and behavior in natural settings. Qualitative method has been chosen since the study is based on people perceptions of participants that are captured through expressive information and cannot be conveyed in quantitative data since they are beliefs, values, feelings, and motivations that underlie behaviors and derive from a variety of disciplines and traditions (Crabtree & Miller, 1992).

Data analysis for qualitative research of this nature can either follow the in depth method, descriptive or thematic analysis (Thorogood and Green, 2011.p.191). For the purposes of this research thematic analysis was conducted, for the simple reason that it looked across all the data to identify the common issues that recur, and identifies the main themes that summaries all the views one has collected

### 3.1 Data Sources

Primary or secondary or both the kinds of data may be used. What could be the probable sources of the secondary data applicable to the research?

#### **Secondary Data**

Desk research will be carried out which will focus on examining the literature on issues of disaster management in Botswana and further begin with an investigating what is already known about the nature of disasters that have affected Botswana in the past and how they were

addressed. The desk research will also identify what remains to be learned about a topic through reviewing secondary sources and investigations others have previously conducted in the area of disaster management.

### **Primary Data**

In-depth interviews will be used to gather data from key informants. In-depth Interviews are perceived by Boyce and Neale (2012.p.3) “as qualitative research technique which involves conducting intensive interviews with a number of respondents to explore their prospective on a particular idea, program or situation”. In-depth interviews will be used to gather data from key informants essentially on factors that impact on humanitarian logistics in Botswana , complexities of humanitarian logistics experienced by both government and disaster committees such the National Disaster Management Office (NDMO), , Disaster, District Disaster Management Committee (District/City/town), National Disaster Management Technical Committee (NDMTC), and Village Development Committees as well as non-governmental organisations such as a Red Cross Society, and the Red Crescent society in Botswana. Primary data will also be premised on gathering data on solutions to the challenges which will culminate in the proposal of effective strategies to ensure rapid response in disaster relief in Botswana.

The research will opt for semi structured questions due to the fact that they don't limit the responses of the participants. Semi structured questions involve a list of open questions that allow the participant to respond in a focused way to the researcher's interests (Gillham, 2005). Semi structured questions will be used because they offers a balance between the flexibility of an open-ended interview and the focus of a structured ethnographic survey..

### **3.2 Research Design**

A research design described the procedures that were used to conduct the study including when, from whom and under what conditions the data was obtained (McMillan and Schumacher, 2010). Magwa (2015) notes that a research design refers to the overall strategy for integrating different component of study in a coherent and logical way to ensure that the research problem is effectively addressed. Creswell (2015) defines research designs as strategies and measures for research that spans the decisions from broad assumptions to detailed methods of data collection and analysis. The research problem determined the methods and procedures, types of



measurement, the sampling, the data collection and the data analysis employed for the proposed research (Zikmund et al., 2010).

For the purposes of this study, the researcher used exploratory research design; it intends merely to explore the research questions and does not intend to offer final and conclusive solutions to existing problems. This type of research is usually conducted to study a problem that has not been clearly defined yet.

Exploratory research is not intended to provide conclusive evidence, but helps to have a better understanding of the problem. When conducting exploratory research, the researcher ought to be willing to change his/her direction as a result of revelation of new data and new insights (Saunders, Lewis, and Thornhill, 2012). Exploratory research design does not aim to provide the final and conclusive answers to the research questions, but merely explores the research topic with varying levels of depth. It has been noted that “exploratory research is the initial research, which forms the basis of more conclusive research. It can even help in determining the research design, sampling methodology and data collection method” (Singh, 2007). Exploratory research “tends to tackle new problems on which little or no previous research has been done” (Brown, 2006). Unstructured interviews are the most popular primary data collection method with exploratory studies.

### 3.3 Research instruments

For the purposes of this study, the researcher used interviews to gain insight into the typical experiences of the participants in order to arrive at sound conclusions. Cohen and Manion, (2001) note that a data collecting instrument is a mechanism for measuring phenomena which is used to gather and record information for assessment, decision making and understanding. A research instrument is a survey, questionnaire, test, scale, rating, or a tool designed to measure the variables, characteristics, information of interest, often a behavior or psychological characteristics (Pierce, 2009). Therefore, the researcher must design data gathering instruments that get the kind of data or information from which the researcher can draw valid conclusions. In this research, the researcher used interviews to collect data.

### 3.3.1 Interview

Becker, (2011) defines interviews as the collection of data through direct verbal interaction between the interviewee and the interviewer. Interviews are particularly useful for getting the data from a participant's experiences. It provides in depth information around a given topic since interviewer can help the participant to answer the question as it requires the actual physical proximity of the two (Bryman, 2012). Becker, (2011) states that interviewer can help the participant to understand the question through the employment of open-ended questions, visual aids and answer scales. More so additional questions can be used to collect detailed information. Therefore, the main advantage of interviews is that there is great use of open ended questions and the interviewer can further explain to aid the respondent for better understanding. Interviews allow the researcher to rephrase the interview questions for the sack of clarity (Patton, 2002). Annum, (2016) asserts that structured interviews are formal because, sets of questions known as interview questionnaire are posed to each interviewee visited and the responses are recorded on a standardized schedule. The researcher will use formal interviews so that the questions will follow a set of patterns.

However, interviews have their own limitations. Time constrain is one of the major limitations of the interview process. Preparation for the interview, taking interviews and interpretation of the responses require much time, which makes the interview method time consuming (Oppenheim, 2011). Winterstein and Kimberlin (2008) also state that responses from interviews may not reflect the real behavior because the interview may impend the respondent's ability to express themselves. The respondents may not open up due to fear of being victimized by the interviewer. So there is a possibility that the interview process can be influenced by the biases of the interviewer. The success of an interview depends on the efficiency of the interviewer (Witkin and Altschuld, 2007). The inefficiency of an interviewer can lead to misleading results. Generally interview method is expensive (McMillan, 2011).The researcher has to make bookings first before the interview. With regard to the limitations of the interview the researcher will create a good rapport with the interviewees during bookings. Interviews were administered to five different humanitarian groups and two participants from each group were chosen.

### **3.3.4 Pilot study**

To improve the credibility, dependability and transferability of the research instruments, the researcher carried out a pilot study. Bless et al, (2006) define the pilot study as a small study conducted prior to a larger piece of research to determine whether the methodology, sampling, instruments and analysis are adequate and appropriate. Janesick, (1994) concurs that the pilot test in qualitative research allows the researcher to make use of the actual qualitative interviews.

According to Wilkinson and Birmingham, (2003) the researcher can begin to identify and correct imperfections by piloting or testing the interview guide with a select few people in order to establish their clarity. Piloting further assists in eliminating ambiguous questions, as well as in generating useful feedback on the structure and flow of the intended interview. Welman et al. (2009) summarise the purpose of the pilot study as a way to detect possible flaws in the measurement process (such as ambiguous instructions, and inadequate time limits). Pilot study also helps to identify unclear or ambiguously formulated items. In such a pilot study the actual questions are put to the participants and they are then asked to indicate how they have interpreted the formulated questions and an opportunity for researchers and assistants to notice non-verbal behaviour (on the part of participants) that may possibly signify discomfort or wording of the questions (Welman et al, 2009). The researcher used other students within the campus so as to establish the anomalies within the instruments.

### **3.4 Interview Procedures**

Semi-structured interview questions were used for gathering data, these guide consisted of a set of predetermined questions and the respondents answered in their own words. In line with the rules of ethics as spelt out in the Belmont Report, consent and voluntary participation was sought for individual respondents as explained below on 3.4.3. After the consent was granted the researcher gave the interviewees the interview guide (questions) in advance in order for them to familiarise with the line of questioning and get prepared for the interview. A schedule of time was provided to the interviewee for them to confirm their availability.

### 3.4.2. Sampling

According to Alvi, (2016) sampling in qualitative research is the selection of specific data sources from which data are collected to address the research objectives. Saunders et al. (2010.p.556) state that sampling is premised on allowing researchers to come up with conclusions on a study by getting data from a part. Purposive sampling was used to identify participants in the collection of data. According to Patton (2015.p.4) “the logic and power of purposive sampling lie in selecting information rich cases for in-depth study”. As such participants will be chosen on the basis of the positions, relevance in the subject matter, and level of insolvent in dealing with disaster management or humanitarian logistics in Botswana.

The sample consisted of ten participants from five organisations captured in Table 1 below. The actual participants were determined through purposive sampling as they were identified through their involvement in humanitarian logistics in Botswana. Only people with in-depth knowledge about humanitarian logistics in Botswana were chosen.

**Table 1- Sample**

<b>Category of Sample</b>	<b>Sample</b>
<b>National Disaster Management Office (NDMO),</b>	2
<b>Village Development Committees</b>	2
<b>National Disaster Management Technical Committee (NDMTC)</b>	2
<b>District Disaster Management Committee (District/City/town)</b>	2
<b>Red Cross Society</b>	2
<b>Total</b>	10

### 3.4.3 Ethical considerations

The ethical considerations applicable to this study involved informed consent, voluntary participation and the avoidance of harm. Research ethics are the principles of right and wrong that guide the researchers when conducting their research (Borg and Gall, 2010). Ethics in

research refers to the code of behavior of the researcher so that humans are not harmed, physically, emotionally and spiritually. The researcher took into consideration these research ethics. For this research, the participants were informed about the purpose of the research.

Informed consent is a consistent and indispensable aspect of qualitative research and involves providing participants with "accurate and complete information" that would allow participants to gain a complete understanding of the study (De Vos *et al*, 2009). As a consequence of this information they should be in a position to make a "voluntary, thoroughly reasoned decision" concerning possible participation. Avoidance of harm involves taking steps to ensure that participants are not "harmed in a physical and/or emotional manner" (De Vos *et al*, 2009). This study did not involve any harmful physical activity or emotionally hazardous conduct.

More so to keep the confidentiality of the respondents is a crucial aspect. To ensure confidentiality the researcher had to conduct all the interviews and kept the instruments in person. No information about the personal details of the respondents should be revealed in any of the records, reports or to other individuals without the respondents' permission (Gay and Airasian, 2008). In this research, the researcher also had to assure the participants that the data collected will only be used for the research and not to be published. The researcher also had to use pseudo names instead of real names of organisations and people. The researcher also had to consider informed consent.

### 3.5 Data Analysis Procedures

In this particular study, data was presented in a thematic form, hence the researcher came up with the major themes and the data was analysed, presented and discussed in these themes. Manoharan (2010) highlight that data presentation, analysis and discussion helps researchers move their analysis from a broad reading of the data towards discovering patterns and developing themes.

Patton (2015) states that advance preparation assist in handling huge quantity of largely soft data in a documented and systematic manner. Therefore, systematic organization of the data is essential to prevent the researcher from losing sight of the original research purpose and questions. According to Creswell (2015), analysis of data in a case study research usually

involves an interactive, spiraling or cyclical process that proceeds from more general to more specific observations.

### 3.6 Summary

In this chapter the researcher was discussing about research paradigm, research approach, research design, population, sample, sample size and sample procedure, research instruments, pilot study, credibility dependability and transferability, ethical consideration, data collection procedure, and data analysis. The next chapter collected data was presented, analyzed and interpreted.

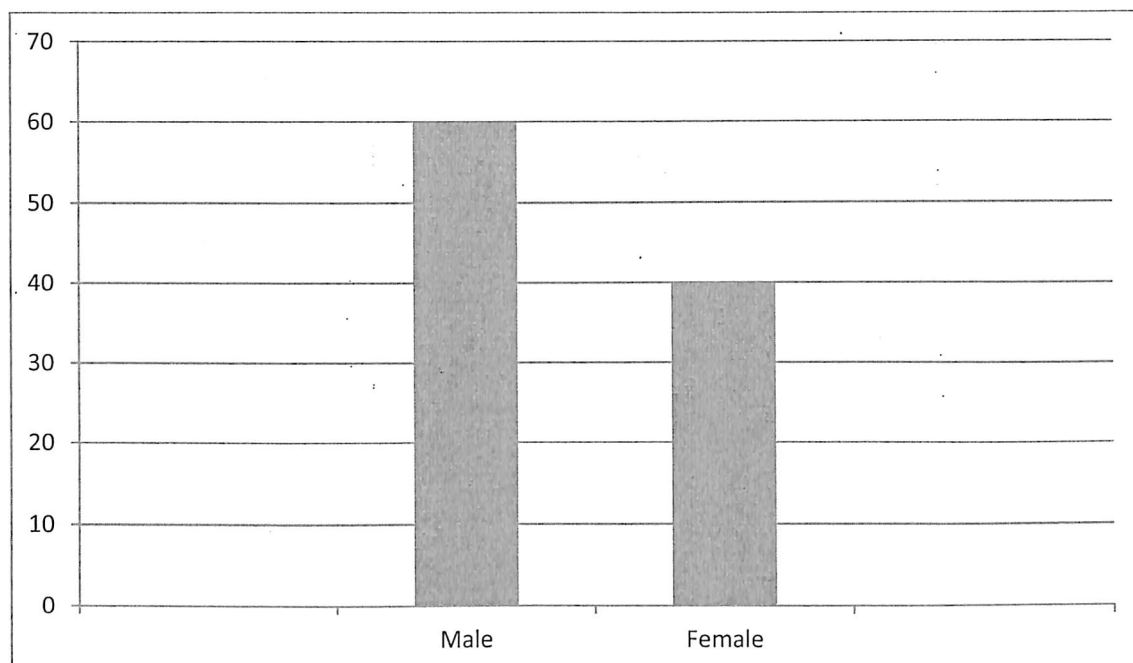
## Chapter 4: Findings and Analysis

### 4.1 Introduction

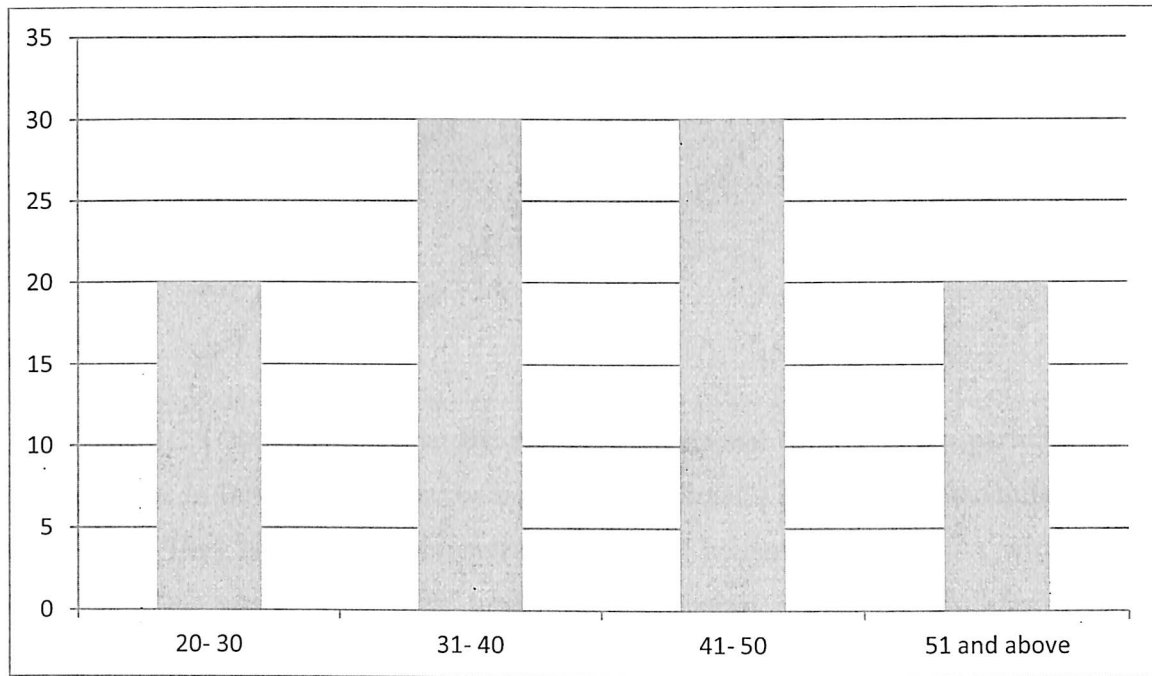
The main thrust of this chapter is to present data and discussion of findings on an investigation on the factors that affect humanitarian logistics. The data were collected using interviews. The gathered data were an effort to answer questions that examine the concept of humanitarian logistics, examine contextual factors that impact on humanitarian logistics in Botswana, assess the complexities of humanitarian logistics, examine supply chain management and humanitarian logistics and establish the effective strategies that should be put in place in order to ensure rapid response in a disaster relief in Botswana.

### 4.2 Demographic data

**Figure 4.2.1: Respondents by Gender**

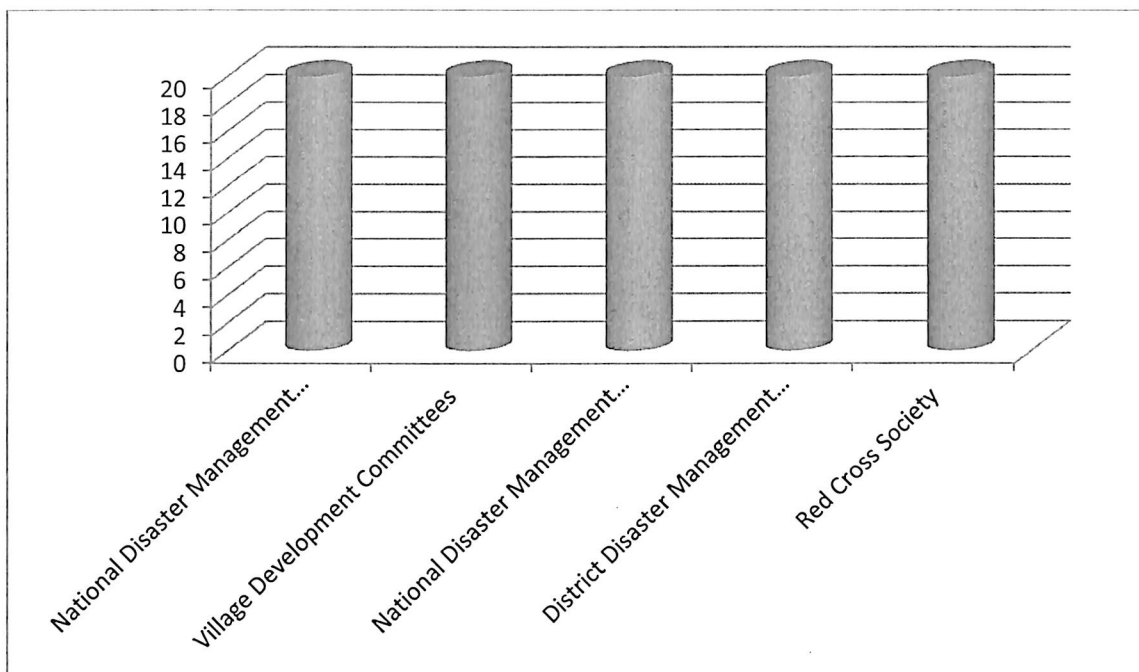


**Figure 4.2.2: Respondents by Age**



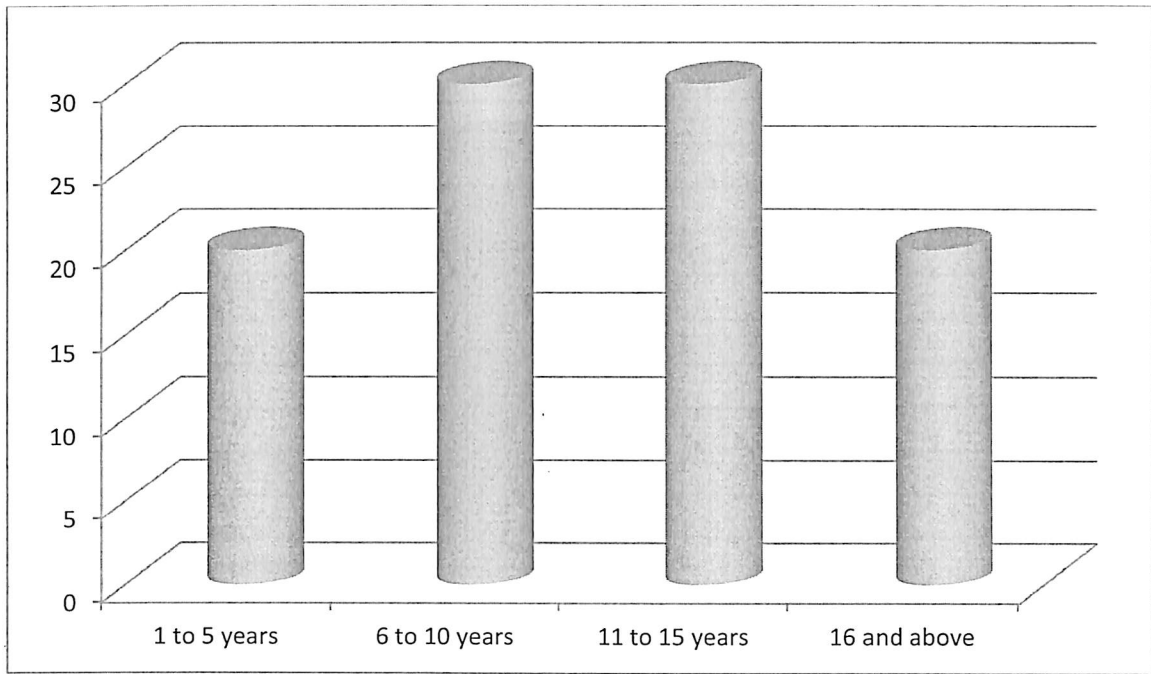
**Figure 4.2.3: Respondents by Organisation**





The Table 4.2.3 above shows that the researcher collected data from ten participants from five organisations in Botswana. These organisations are directly involved in humanitarian logistics in Botswana. They have vast experiences in issues of humanitarian logistics within the country. The researcher was able to have time with the chosen respondents to ask questions about humanitarian logistics in Botswana

**Figure 4.2.4: Respondents by number of years in humanitarian Services**



**Figure 4.2.5: Level of Consent to participate in interviews- Verbal consent**

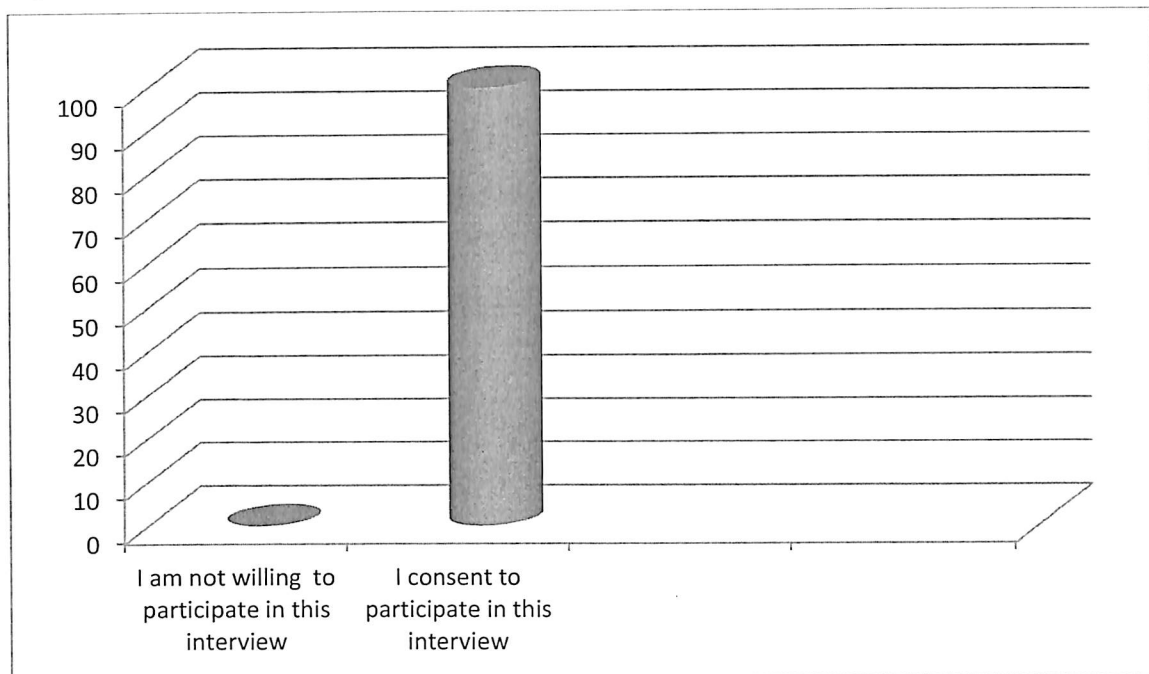


Figure 4.2.5 above shows that all the ten respondents constituting 100% consented to participate in interviews before the commencement of the interviews. This is in tandem with the prescription of qualitative research, which requires that respondents should consent as a condition to participate.

#### **4.3 Views of participants on the concept of humanitarian logistics and level of involvement**

4.3 sought to establish views on respondents on their understanding of the concept of humanitarian logistics and level of involvement. To establish their understanding of the concept the study posed three semi structured questions whose responses are captured as themes in Table 4.3.1, Figure 4.3.1, Table 4.3.2, Figure 4.3.2, Table 4.3.3 and Figure 4.3.3 below.

### 4.3.1 Have you ever been directly involved in offering humanitarian aid during a disaster?

**Table 4.3.1: Themes on involvement in offering humanitarian aid on question 4.3.1 above**

Theme code	Themes	Frequency	Percentage
4.3.1.1	Directly involved in disaster relief and has field experience	8	80%
4.3.1.2	Do logistic administration work	2	20%

**Figure 4.3.1: Themes on involvement in offering humanitarian aid on question 4.3.1 above**

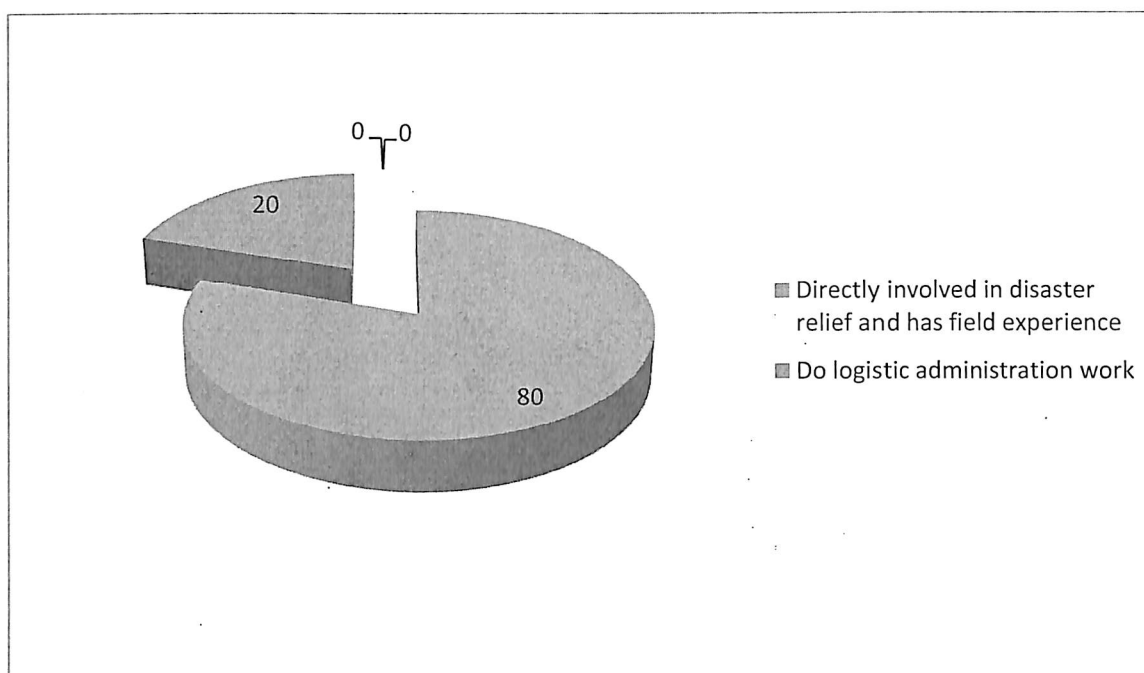


Table 4.3.1 and Figure 4.3.1 above captured the themes which arose from the participants on the semi structured question which sought to establish if they had ever been directly involved in offering humanitarian aid during a disaster. Eight out of ten participants who constitute 80 % were directly involved in humanitarian logistics and have an experience in the field. The remaining 20% were involved in humanitarian logistic administration. the implication is that , all the participants constituting 100% had inside information on the subject understudy, hence their responses could be relied on.

**4.3.2: What was your specific duty during the disaster?**

**Table 4.3.2: Frequency of themes on specific duty during the disaster on question 4.3.2 above**

Theme code	Themes	Frequency	Percentage
4.3.2.1	Delivering and distributing relief aid to the affected areas.	8	80%
4.3.2.2	Providing logistic administrative work and facilitating relief operations	2	20%

**Figure 4.3.2: Frequency of themes on specific duty during the disaster on question 4.3.2 above**

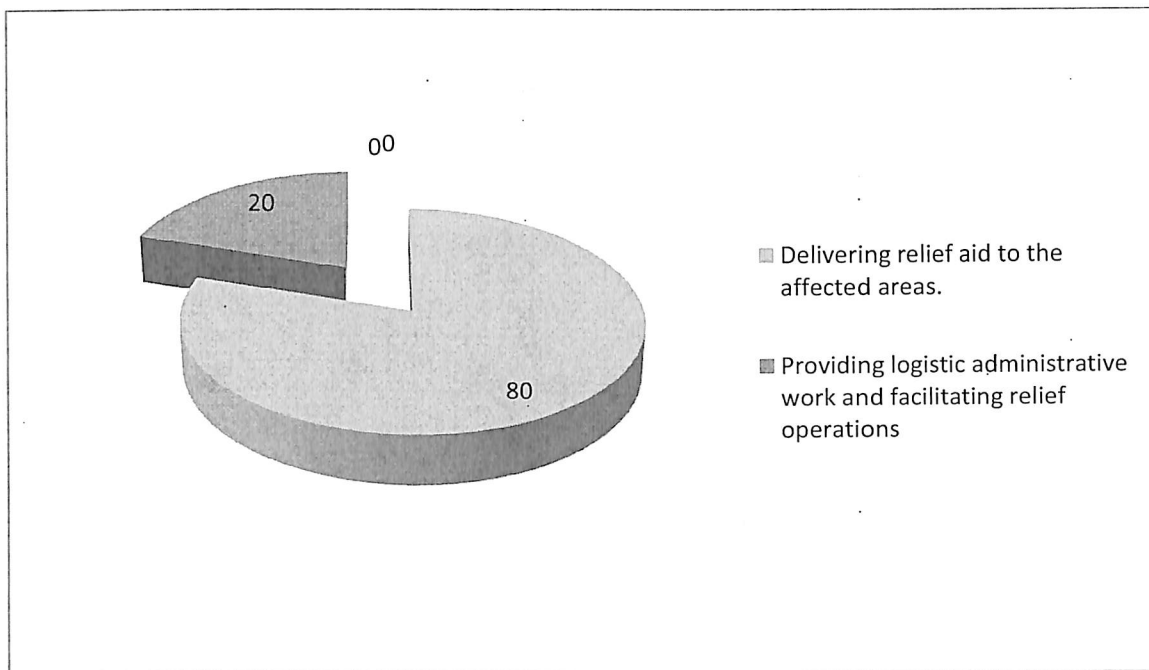


Table 4.3.2 and Figure 4.3.2 above captured the themes which arose from the participants on the semi structured question which sought to establish their specific duty during the disaster. eighty percent of the participants were involved in delivering and distributing relief aid to the affected areas. The other 20% were involved in providing logistic administrative work and facilitating relief operations.

**4.3.3: During your disaster relief operations how long did it normally took you to get to the affected areas?**

**Table 4.3.3 Themes on the duration taken to reach the affected areas on question 4.3.3 above**

Theme code	Themes	Frequency	Percentage
4.3.3.1	Reaching to the affected area may take between 3 to 5 days due to poor logistical coordination and delays in mobilizing resources	5	50%
4.3.3.2	Depending on the accessibility and nature of disaster it may take up to a week.	5	50%

**Figure 4.3.1: Themes on the duration taken to reach the affected areas on question 4.3.3above**

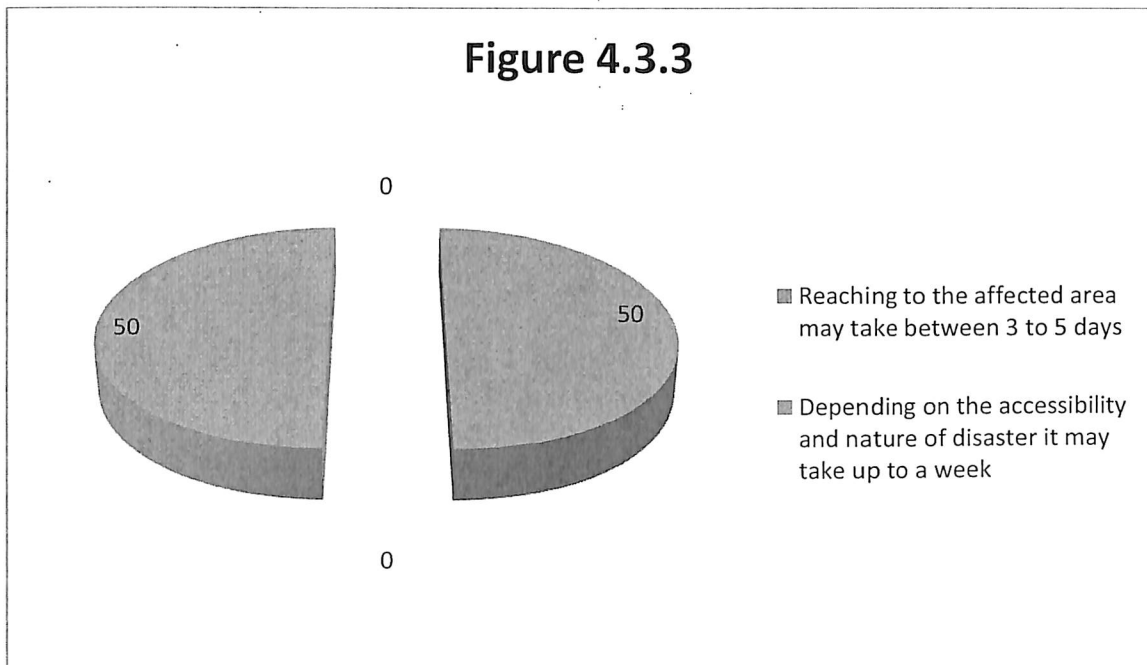


Table 4.3.3 and Figure 4.3.3 above captured the themes which arose from the participants on the semi structured question which sought to establish how long it normally took the respondents and their teams in reaching the affected areas. Fifty percent of the participants concurred that reaching to the affected area may take between 3 to 5 days due to poor logistical coordination and delays in mobilizing resources. The other 50% were in agreement that, depending on the accessibility and nature of disaster it may take up to a week.

#### 4.4 Views of participants on contextual factors that impact on humanitarian logistics in Botswana

##### 4.4.1 What were the effects of the disaster to the affected peoples?

**Table 4.4.1: Themes on effects of the disaster to the affected peoples**

Theme codes	Themes	Frequency	Percentage
4.4.1.1	Destruction of buildings and property	2	20%
4.4.1.2	Spread of disease and loss of life	2	20%
4.4.1.3	Destruction of buildings and property as well as spread of disease and loss of life	4	40%
4.4.1.4	Huge damage to environmental assets and human development, while degraded environments	2	20

**Figure 4.4.1: Themes on effects of the disaster to the affected peoples**

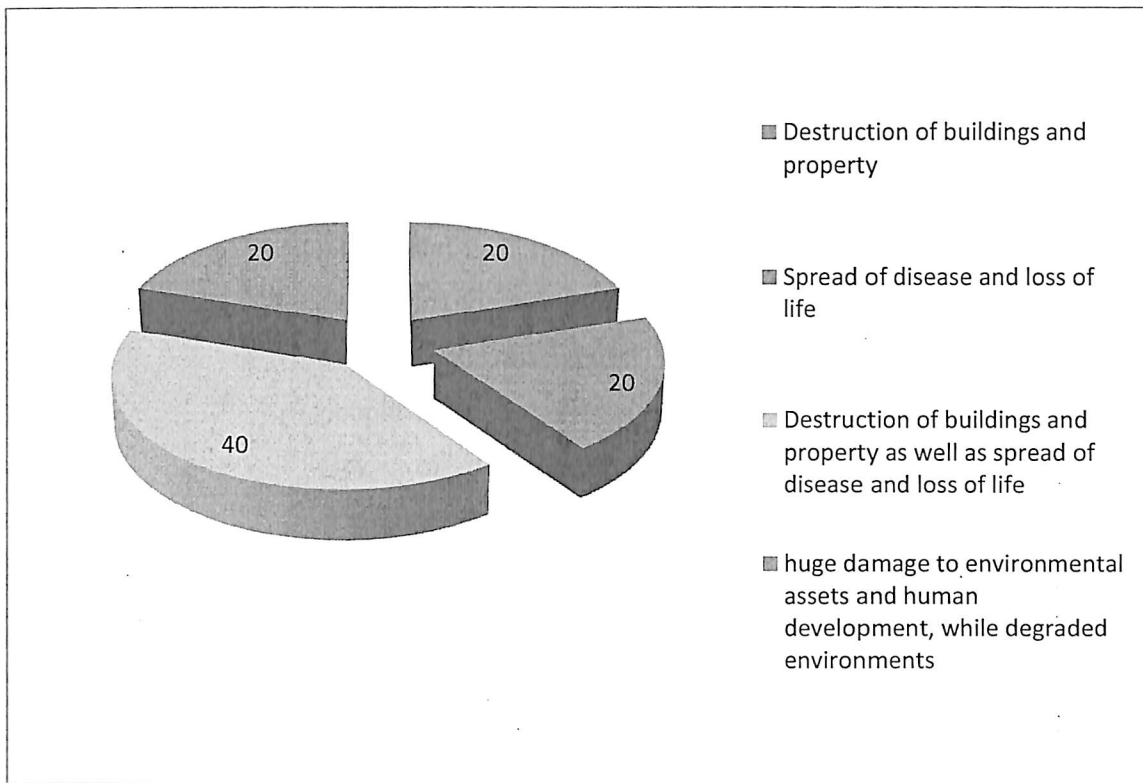


Table 4.4.1 and Figure 4.4.1 above captured the themes which arose from the participants on the semi structured question which sought to establish the effects of the disaster to the affected peoples. Four themes arose from the responses theme 4. 4.1 Captured that 20% of respondents felt that disasters in Botswana destroyed buildings and property, the other 20% concurred that disaster resulted in spread of disease and loss of life. Forty percent were in agreement that disaster resulted in both destruction of buildings and property as well as spread of disease and loss of life and the other 20% were of the view that disaster resulted in huge damage to environmental assets and human development, while degraded environments.



**4.4.2: Did your organisation manage to assist the affected people in time, if not what were the reasons?**

**Table 4.4.2: Themes on response time in assisting the affected people**

<b>Theme codes</b>	<b>Themes</b>	<b>Frequency</b>	<b>Percentage</b>
4.4.2.1	They did not manage to assist the affected people in time due to lack of sufficient disaster preparedness and resources	5	50%
4.4.2.2	They did not manage to assist the affected people in time due to lack of dedicated disaster risk management staff (capacitated focal points) in the districts	3	30%
4.4.2.3	They did not manage to assist the affected people in time due to poor coordination with government disaster management structures	2	20%

**Figure 4.4.2: Themes on response time in assisting the affected people**

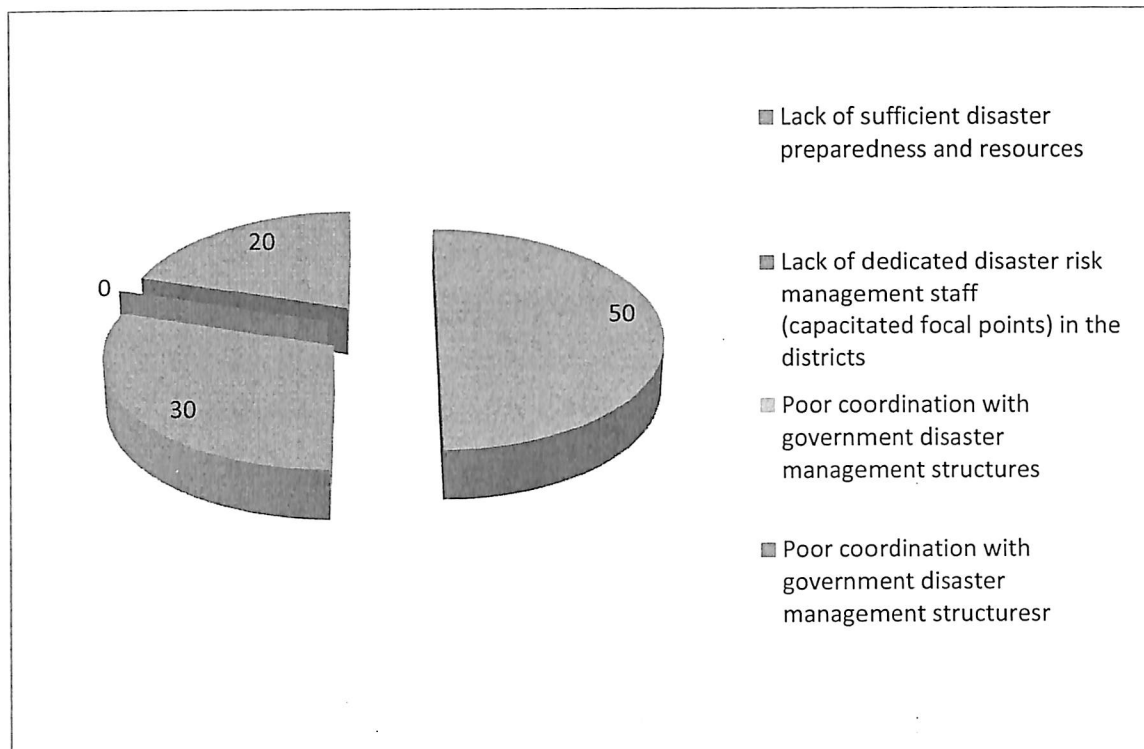


Table 4.4.2 and Figure 4.4.2 above captured the themes which arose from the participants on the semi structured question which sought to establish if their organisations managed to assist the affected people in time. Three themes arose from the responses theme 4.4.2 captured that 50% of respondents felt that They did not manage to assist the affected people in time due to lack of dedicated disaster risk management staff (capacitated focal points) in the districts), the other 30% concurred that disaster resulted in spread of disease and loss of life. Twenty percent were in agreement that they did not manage to assist the affected people in time due to poor coordination with government disaster management structures .

**4.4.3: Were your working with other organisations in disaster relief operation? How was the level of coordination?**

**Table 4.4.3: Themes on level of cooperation and coordination in working with other organisations**

Theme code	Themes	Frequency	Percentage
4.4.3.1	We were with working with other stakeholders involved in humanitarian logistics, but the was less coordination	50	50%
4.4.3.2	We were working with other organisations but the challenge was coordination	5	50%

**Figure 4.4.3: Themes on level of cooperation and coordination in working with other organisations**

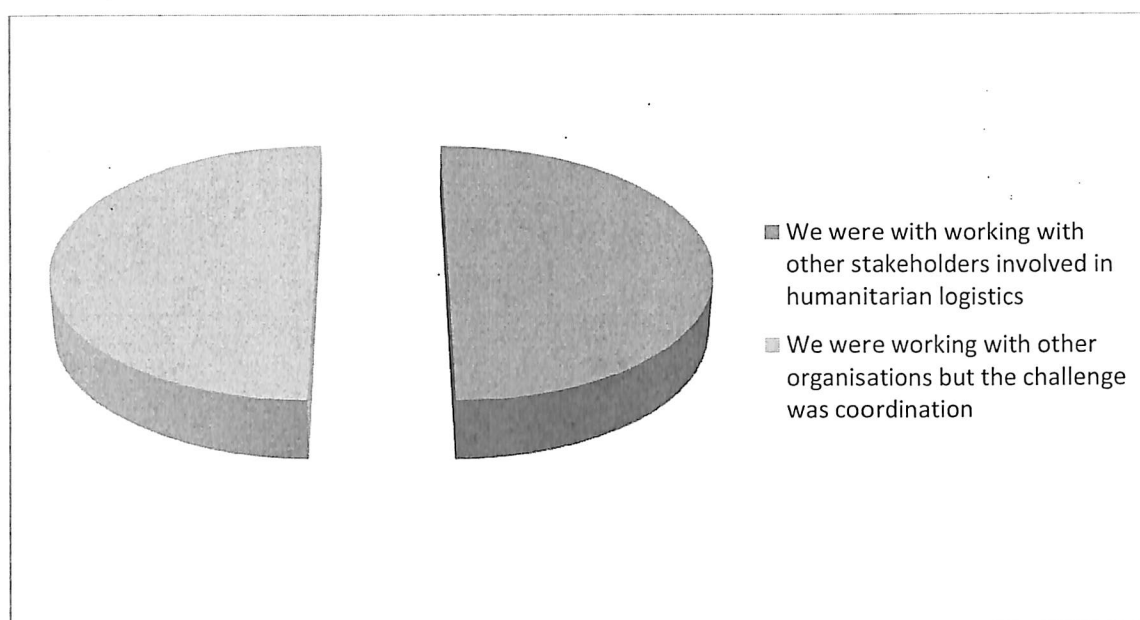


Table 4.3.3 and Figure 4.3.3 above captured the themes which arose from the participants on the semi structured question which sought to establish if their organisation was working with other organisations to assist the disaster relief operations, and it further sought to establish the level of coordination. Fifty percent of the respondents felt that, their organisation was working with other stakeholders involved in humanitarian logistics, but there was less coordination. The other 50% concurred that, their organisation was working with other organisations in disaster relief operations but the challenge was coordination. From the themes it should be noted that, all in all there was indeed challenges of coordination.

#### 4.5 View of participants on the complexities of humanitarian logistics

##### 4.5.1 What affected the smooth flow of humanitarian logistics during disaster relief operations?

**Table 4.5.1: Themes on the flow of humanitarian logistics during disaster relief operations**

<b>Theme code</b>	<b>Themes</b>	<b>Frequency</b>	<b>Percentage</b>
4.5.1.1	Logistical problems due to inaccessibility due to damaged roads and collapsed bridges	5	50%
4.5.1.2	Lack of storage facilities and shelter for affected people	5	50%

**Figure 4.5.1: Themes on the flow of humanitarian logistics during disaster relief operations**

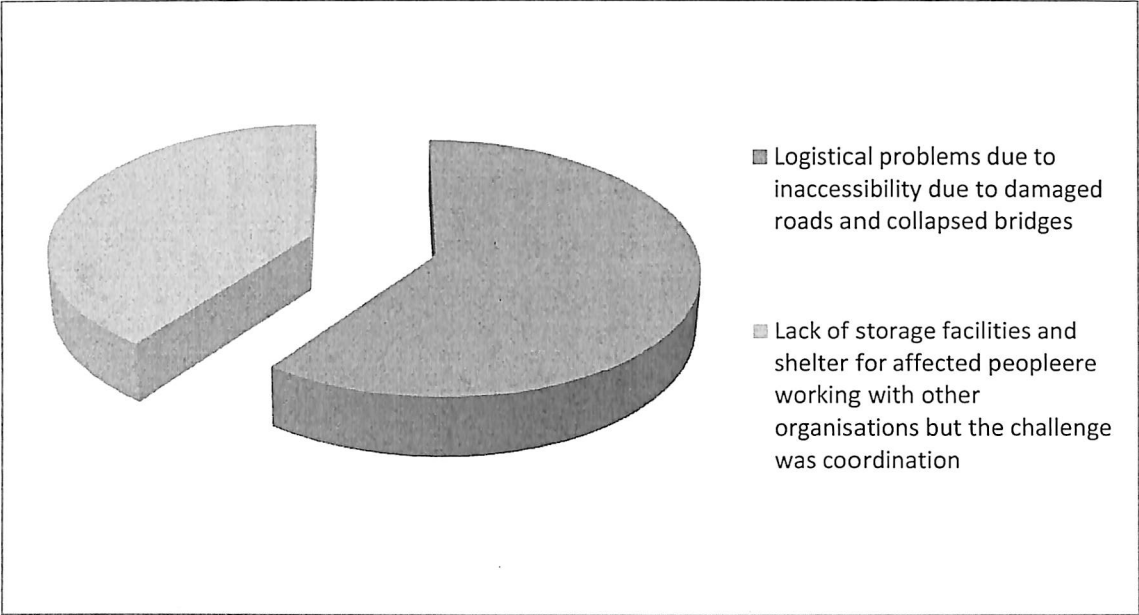


Table 4.5.1 and Figure 4.5.1 above captured the themes which arose from the participants on the semi structured question which sought to establish what affected the smooth flow of humanitarian logistics during disaster relief operations. Fifty percent of the respondents felt that, the smooth flow of humanitarian logistics during disaster relief operations was affected by logistical problems due to inaccessibility due to damaged roads and collapsed bridges. The other 50% concurred that, the smooth flow of humanitarian logistics during disaster relief operations was affected by lack of storage facilities and shelter for affected people

#### 4.5.2: Were you able to travel from point A to B without any difficulties?

**Table: 4.5.2: Themes on challenges of moving from point A to B**

Theme code	Themes	Frequency	Percentage
4.5.2.1	There were challenges in moving due to poor road networks due to storms.	10	100%

**Figure 4.5.2: Themes on challenges of moving from point A to B**

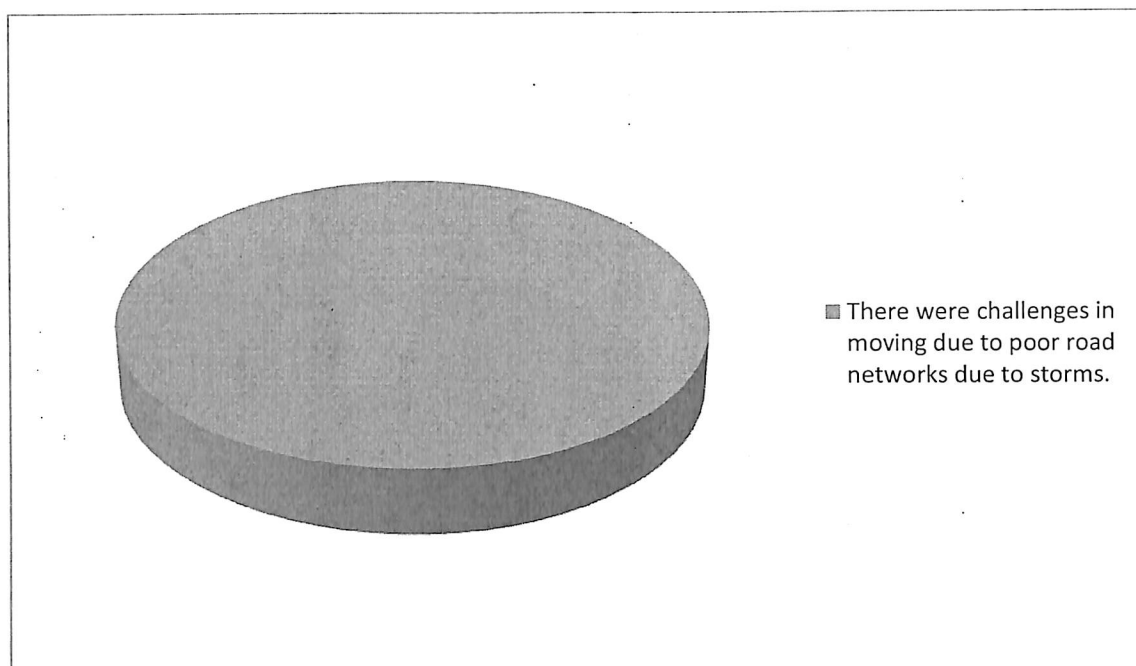


Table 4.5.1 and Figure 4.5.1 above captured the themes which arose from the participants on the semi structured question which sought to establish if they were able to travel from point A to B without any difficulties. All the respondents constituting 100% were in concurrence that there were challenges in moving due to poor road networks as a result of damages of roads and collapse of bridges in some areas due to storms.

### 4.5.3: Were you able to communicate without any challenges with other stakeholders?

**Table 4.5.3: Themes on challenges in communication stakeholders**

Theme code	Themes	Frequency	Percentage
4.5.3.2	Poor communication with other stakeholders due to disruption of communication networks	7	70%
4.5.3.2	The was no communication at all with affected people due to disruption of communication networks	3	30%

**Figure 4.5.3: Themes on challenges in communication stakeholders**

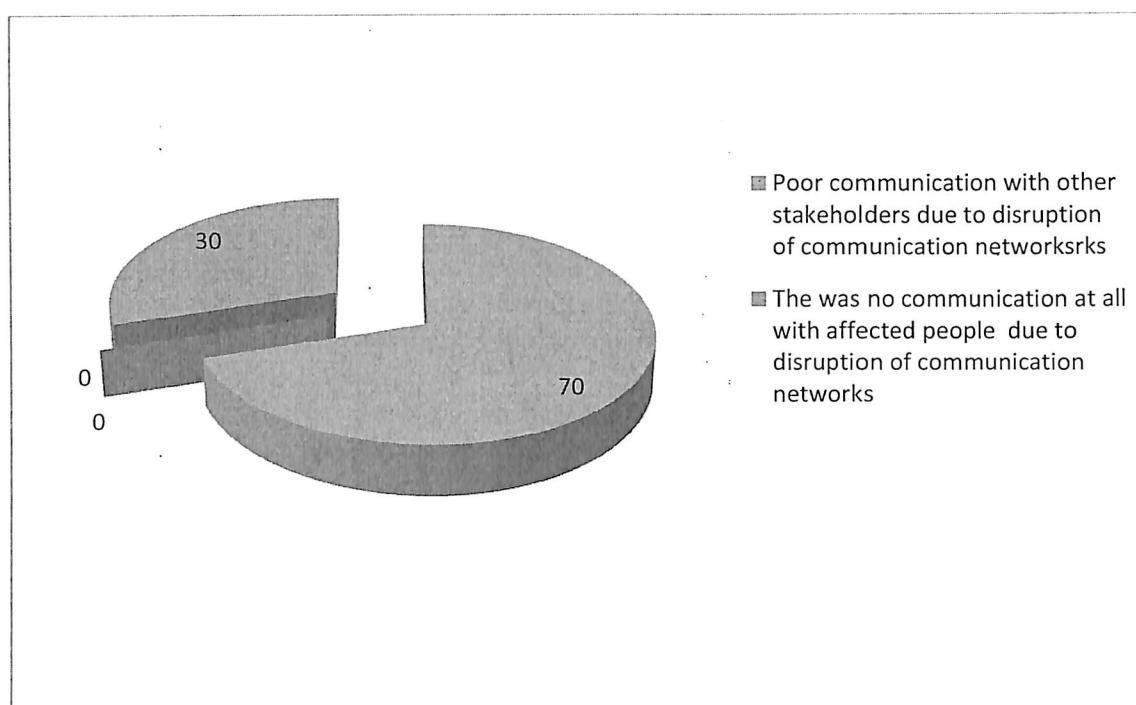


Table 4.3.3 and Figure 4.3.3 above captured the themes which arose from the participants on the semi structured question which sought to establish if they were able to communicate with any challenges with other stakeholders. Seventy percent of the respondents felt that, due to poor

communication with other stakeholders as a result of disruption of communication networks communicate with other stakeholders was a challenge. The other 30% concurred that, The was no communication at all with affected people due to disruption of communication networks

#### 4.6 Views of participants on effective strategies that should be put in place in order to ensure rapid response in a disaster relief in Botswana

##### 4.6.1 What strategies should be put in place in order to mitigate challenges faced in humanitarian logistics in Botswana in order to promote rapid response? Give many suggestions as possible

**Table 4.6: Strategies for mitigate challenges faced in humanitarian logistics in Botswana**

Themes	Themes	Frequency	Percentage
4.6.1	Prioritizing risk reduction through establishment of effective and efficient humanitarian logistics system	6	60%
4.6.2	Monitoring of disaster risks as well as assessing early warning	8	80%
4.6.3	Reinforcing disaster preparedness for effective response at from district to national level	8	80%
4.6.4	Intensify awareness and information on disaster risk reduction and disaster surveillance	9	90%
4.6.5	Build community resilience against the threats and effects of disasters	6	60%
4.6.6	Provide district disaster management committees with standby helicopters and 4X4 landcruises vehicles to reach affected areas expediently	9	90%
4.6.7	Build community reinforced building structures for use as temporary shelter in times of disaster as well as storage warehouse for relief aid goods	7	70%
4.6.8	District disaster management committees composed of all disaster agencies for expedient and coordinated response	9	90%
4.6.9	Reliance of donors or donor syndrome should be reduced as it delays rapid response when the officials are still waiting for donors	9	

**Figure 4.6: Strategies for mitigate challenges faced in humanitarian logistics in Botswana**



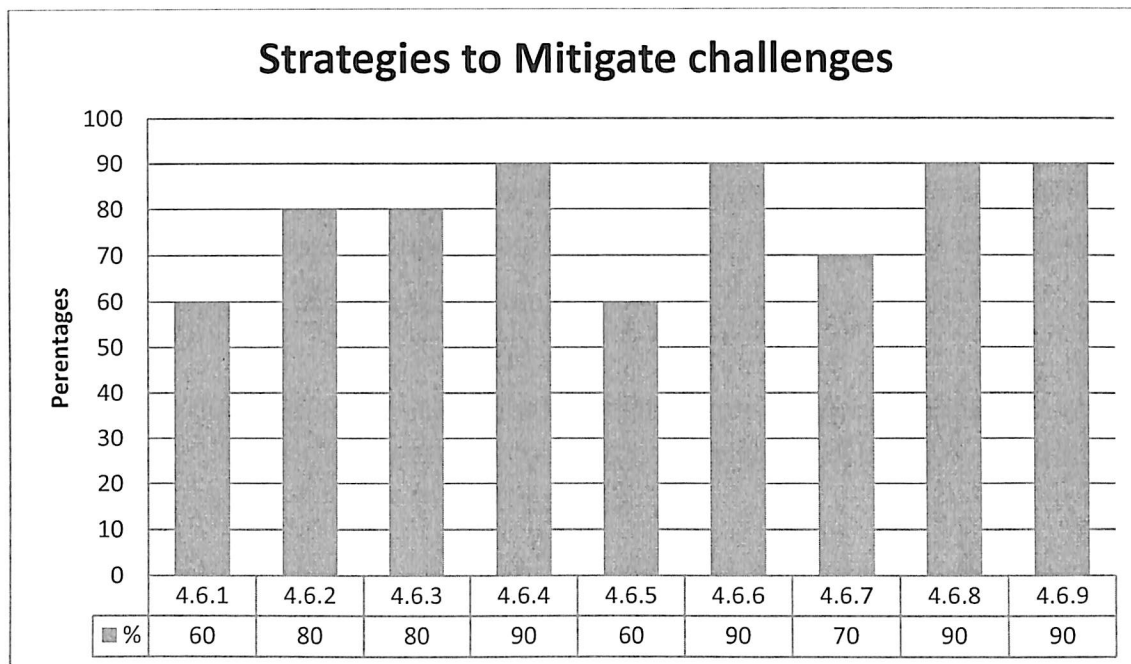


Table 4.6 and Figure 4.6 above captured the themes which arose from the participants on the semi structured question which sought to solicit for strategies to be put in place in order to mitigate challenges faced in humanitarian logistics in Botswana which will result in promotion of rapid response. The respondents were asked to provide many suggestions as possible. The suggested strategies were captured as themes as indicated.

Theme 4.6.1 which arose from responses of 60% of the respondents suggest that, risk reduction should be prioritized through establishment of effective and efficient humanitarian logistics system

Theme 4.6.2 suggests that monitoring of disaster risks as well as assessing early warning should be the hallmark of disaster management and mitigation. The theme arose from 80% of the respondents.

Theme 4.6.3 which arose from responses of 80% of the respondents suggest that disaster preparedness should be reinforced for effective response at from district to national level.

Theme 4.6.4 which came as a result of suggestion by 90% of the respondents suggest that intensify awareness and information on disaster risk reduction and disaster surveillance is key in mitigate challenges faced in humanitarian logistics in Botswana

Theme 4.6.5 which arose from responses of 60% of the respondents suggest that building community resilience against the threats and effects of disasters is key in mitigate challenges faced in humanitarian logistics in Botswana

Theme 4.6.6 which arose from suggestion of 90% of respondents suggest that government should provide district disaster management committees with standby helicopters and 4X4 landcruises vehicles to reach affected areas expediently

Theme 4.6.7 which came as a result of suggestion by 70% of the respondents suggest that government of Botswana should build community reinforced building structures for use as temporary shelter in times of disaster as well as storage warehouse for relief aid goods.

Theme 4.6.8 which arose from responses of 90% of the respondents suggest that District disaster management committees composed of all disaster agencies for expedient and coordinated response.

Theme 4.6.9 which arose from suggestion of 90% of respondents suggest that, reliance of donors or donor syndrome should be reduced as it delays rapid response when the officials are still waiting for donors.

#### 4.8 Summary

In this chapter the researcher was presenting, analysing and interpreting data on an investigation on the factors that affect humanitarian logistics; a case of Botswana. In the next chapter the researcher will summarise, give conclusion and recommendations on the study and for further studies.

## **Chapter 5: Interpretation of Results**

### **5.0 Introduction**

This chapter provided a summary of the whole study and conclusions drawn from the findings of the research from interviews. Recommendations based on the research findings were made to the concerned stakeholders. The methodology in the study was based on qualitative approach. The researcher used the exploratory as his research paradigm. The population of this study comprised of ten participants, two from each of the chosen five organisations. In this study the researcher used a sample of humanitarian organisations in Botswana. The researcher used interviews as his research instruments. These instruments were used to collect data from humanitarian organisations. Findings from these participants were presented in thematic form and discussed.

### **5.1 Interpretation on results on the concept of humanitarian logistics and level of involvement**

The study sought to establish views on respondents on their understanding of the concept of humanitarian logistics and level of involvement. Respondents revealed that they had once been involved in humanitarian logistics during relief which shows that they understanding of humanitarian logistics. In particular the study revealed that, eighty percent of the participants were involved in delivering and distributing relief aid to the affected areas and the other 20% were involved in providing logistic administrative work and facilitating relief operations. The finding were necessary in determining their understanding of humanitarian logistics as the subsequently sections will only make sense if someone had been involved in humanitarian logistics in one way or the other. It was also noted that the majority of respondents had experienced challenges in their disaster relief operations resulting in delays in reaching the affected areas which could take between 3 to 5 days due to poor logistical coordination and delays in mobilizing resources. The other challenges were due accessibility and nature of disaster it may take up to a week.

### **5.4 Contextual factors that impact on humanitarian logistics in Botswana**

On the contextual factors that impact on humanitarian logistics in Botswana the study established that, disaster relief organisation did not manage to assist the affected people in time, due to a number of challenges such as lack of dedicated disaster risk management staff (capacitated focal points) in the districts, resulted in spread of disease and loss of life, poor coordination with government disaster management structures. In support from literature, studies have noted that, despite the importance of supplies in humanitarian logistics most of the humanitarian supply chains are unstable, unpredictable and stiff to respond to the needs of the affected victims (Yadav and Barve, 2015).

Other contextual factors that impact on humanitarian logistics in Botswana which were identified by the study are that, there was poor coordination among the organisation offering relief aid as they were too fragmented and disjointed making it almost impossible for them to rapidly act when disaster strike. Coordination is seen as key in relief operations since it promotes concerted effort, complimentary nature of operation, less or no duplication of efforts and resources and reduction in time spent in cross organisational meetings. The findings are in tandem with literature as stated by Thomas and Kopczak, (2005) who state that, despite the fact that the relief operators are influential in the effective response, many a times these operators create confusion as they compete with each other for funds, resources, critical infrastructure and decision-makers' attention.

However, the problem of coordination should be appreciated in the context of the nature of donorship which is diverse, resulting in each donor having a desire to impose their will in relief operations.

### 5.5 Complexities of humanitarian logistics

On the complexities of humanitarian logistics in Botswana which affects the smooth flow of relief aid during disaster relief operations, the study established that indeed there were a number of complexities which were peculiar to Botswana which included displacement of people.

The findings are supported by Yadav and Barve, (2015) who state that, one of the most immediate effects of natural disasters is population displacement. The complexities which were

identified disaster relief operations were affected by logistical problems due to inaccessibility of affected areas as a result of damaged roads and collapsed bridges which all posed danger to relief operations personnel. Another complexity in humanitarian logistics during disaster relief operations was the lack of storage facilities and shelter for affected people. Due to incessant rain induced by cyclones in Mozambique the country has experience destruction of houses in the villages and towns, hence the need to relocate people to safer places. Without storage facilities for storing relief aid and building to be used for sheltering affected people especially during harsh stormy or rainy weather conditions. The findings are collaborated by Scarpin and Silva, (2014) who state that, "It is extremely important and necessary that a distribution center towards environmental disasters cases must take into account a couple of aspects, such as location, access to large vehicles, platforms to unload the goods, size sufficient to store donations and how they will be distributed to the intended beneficiaries".

It was also noted in the findings in chapter 4 that other complexities of humanitarian logistics in Botswana involve the challenges of travelling from point A to B. The study established that relief aid operations were hampered by poor road networks as a result of damages of roads and collapse of bridges in some areas due to storms making it impossible for relief aid operations to take place. The challenge results in delays in attending the affected areas at the nick of time in order to avoid loss of live and mitigate human suffering. Furthermore the challenges were compounded by poor communication with other stakeholders as well as the affected communities as a result of disruption of communication networks communicate with other stakeholders was a challenge. The findings are in tandem with literature as postulated by Christopher and Tatham, (2011) who state that, the loss of lives could be averted and an excessive level of human misery and grief would be lessened if all the stakeholders participating do play their part to the fullest.

#### 5.6 Recommendation on strategies that should be put in place in order to ensure rapid response in a disaster relief in Botswana

As noted in the previous section 5.4 on contextual factors that impact on humanitarian logistics in Botswana and 5.5 on complexities of humanitarian logistics in Botswana the noted that indeed

they were contextual factors affecting the smooth operation of relief aid in Botswana. The study further noted that Botswana is facing humanitarian logistical complexities which need to be addressed through strategies. What follows are the strategies that were captured on through the themes that arose from the responses of respondent which will aid in mitigate challenges faced in humanitarian logistics in Botswana in order to promote rapid response in when disaster strike.

The respondents suggest that, risk reduction should be prioritized through establishment of effective and efficient humanitarian logistics system and that monitoring of disaster risks should be done scientifically. It was noted that early warning signs should be assessed and taken seriously before disaster stick for the purposes of disaster management and mitigation. in collaboration Van Wassenhove, (2006) state that, humanitarian supply chain is the nerve centre of disaster relief as a result of its role of serving like a bridge which link disaster preparedness and response as well as between procurement and distribution.

Due to the complexities of relief operations as attested by respondents, the study suggest that disaster preparedness should be reinforced for effective response at district to national level and that government should provide district disaster management committees with standby helicopters and 4X4 land cruises vehicles to reach affected areas expediently. These strategies will counter the challenge of response time as well as logistical problems of accessibility.

Furthermore, the study propose that government through its disaster management structures should intensify awareness and information on disaster risk reduction and disaster surveillance as key strategies of mitigating challenges faced in humanitarian logistics in Botswana. In addition it was noted that, community resilience against the threats and effects of disasters should be inculcated to communities as a key in mitigate challenges faced in humanitarian logistics in Botswana

Basing on the recommendation from respondents the study concludes that, government of Botswana should build community reinforced building structures for use as temporary shelter in times of disaster as well as storage warehouse for relief aid goods. the recommendation is in line with the bottom up approach entails the local authority which is affected proving the preliminary

response and emergency services (Maripe and Maundeni ,2012) .It was further noted that, district disaster management committees composed of all disaster agencies should be on standby and high alert at all times for expedient and coordinated response. Lastly, the study recommends that, reliance of donors or donor syndrome should be reduced as it delays rapid response when the officials are still waiting for donors.

## 5.2 Comparison of Results with Assumptions

This chapter was focusing on comparison of results with assumptions. The study assumed that that there are governments structures and nongovernmental organisations established for disaster management and relief in Botswana of which the assumptions were collaborated by the findings which established that indeed there are government's structures and nongovernmental organisations established for disaster management.

The assumptions of the study also noted that, Botswana faces poor response and delays in reaching out to areas of disaster in times of disaster. This assumption was confirmed by the result of the study as it was confirmed by findings that due to challenges of coordination, donor dependence syndrome and logistical problems that have to do with storage facilities, damaged road networks and communication networks.

The study assumed that Botswana relies on donors in terms of relief aid which derails rapid response to disasters. This assumption was confirmed the results as respondents felt that reliance on donor's delays operations as they wait for aid.

The assumptions of the study also noted that, there is a symbiotic relation between supply chain management and humanitarian logistics, which was confirmed by the results which attributed challenges of humanitarian logistics to factors of supply chain such as transportations disruption as a result of damages in road networks, and warehousing limitations.

The assumptions of the study also noted that Botswana lacks capacity to rapidly deal with disasters when they occur, such as storage facilities and buildings for providing shelter during periods of disaster especially in villages. It also further noted that Botswana is facing challenges of coordination of organisation in the disaster relief operations as they seem to be fragmented.

These assumptions were confirmed by the results as it was established that, disasters relief operations are hampered by poor coordination and lack of facilities in villages for storage.

### 5.8 Summary

In this chapter the researcher provided the interpretation of results which were captured on chapter 4. The study concluded that humanitarian logistics in Botswana face a lot of contextual challenges which need to be addressed in order for the country to rapidly respond to disasters when they happen. Rapid response is seen as a panacea of mitigating human suffering. The following chapter focuses on the conclusions and Scope for Future Work

## Chapter 6: Conclusions and Scope for Future Work

### 6.1: Conclusions

The study concludes that humanitarian logistics is the “processes and systems involved in mobilizing people, resources, skills, and knowledge to help vulnerable people affected by natural disasters and complex emergencies” Thomas, (2003:p.3).



The study concludes that humanitarian logistics is contextual in nature as different countries have different structures to deal with disasters and the geographic nature of each country makes humanitarian logistics to be peculiar, hence Botswana challenges although related to logistics are unique and need exclusive attention.

The study concludes that Botswana faces a numerous complexities in humanitarian logistics which include exceptional demands on the logistical and organizational skills , management of supplies already at hand or in the pipeline, piling up of supplies at the central level while acute shortages are painfully evident at the emergency site, unsolicited and often inappropriate donations also compete for storage and transport facilities that may be in short supply, lack of pre-positioned warehouses at strategic locations, inaccessibility of disaster sites, coordination, and disruption of both road networks and communication channels.

The study recommends that Botswana should establish effective strategies to ensure rapid response in disaster relief in and also as part of the programme building disaster resilience to natural hazards. Among other conclusions it is recommended that Botswana should focus on risk reduction, disaster preparedness should be reinforced for effective response at district to national level, government of Botswana should build strategically located community reinforced building structures for use as temporary shelter and humanitarian organisations need to engage its workers in volunteer activities in other countries that will expose them in experiences that promote logistical understanding.

The study further concludes that humanitarian organisations should engage the government of Botswana regularly in development workshops so as to enhance their logistical skills as far as humanitarian aid is concerned.

## 6.2 Scope for Future Work

This research was looking at an investigation on the factors that affect humanitarian logistics; A case of Botswana. Further research could be on the:

- Investigation on how humanitarian logistics can be enhanced through collaboration of different organisations

- development of a framework on community resilient programme on natural hazards
- development of a framework on community sustainable development in humanitarian aid programs

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## Appendix 1-Interview guide

### INTERVIEW GUIDE ON HUMANITARIAN LOGISTICS

### AN INVESTIGATION ON THE FACTORS THAT IMPACT ON HUMANITARIAN LOGISTICS: A CASE OF BOTSWANA

### HUMANITARIAN LOGISTICS: SEMI-STRUCTURED INTERVIEW

SECTION A
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M / F

Age

#### 1. Qualitative interview introduction

Length: 45-60 minutes

Primary goal: To see things the way you see them... more like a conversation with a focus on your experience, your opinions and what you think or feel about the topics covered

#### 2. Verbal consent

Would you like to participate in this interview?

Verbal Consent was obtained from the study participant

Verbal Consent was NOT obtained from the study participant

#### 3. Respondents by Organisation

Which organisation do you work for?

#### 4. Number of years in humanitarian services

How long have you worked in humanitarian services?

#### 5. Consent to participate in interviews- Verbal consent

Do you consent to participate in interviews?

#### 3. Background Information

Overview:

Invite interviewee to briefly tell me about him/herself: General information about background... mostly about experiences and perspectives on issues humanitarian logistics.

## SECTION B

### **1.0 Views of participants on the concept of humanitarian logistics and level of involvement**

- 1.1 Have you ever been directly involved in offering humanitarian aid during a disaster?
- 1.2 What was your specific duty during the disaster?
- 1.3 During your disaster relief operations how long did it normally took you to get to the affected areas?

### **2.0 Views of participants on contextual factors that impact on humanitarian logistics in Botswana**

- 2.1 What were the effects of the disaster to the affected peoples?
- 2.3 What were the effects of the disaster to the affected peoples
- 2.3 Did your organisation manage to assist the affected people in time, if not what where the reasons?
- 2.4 Were you working with other organisations in disaster relief operation? How was the level of coordination?

### **3.0 View of participants on the complexities of humanitarian logistics**

- 3.1 What affected the smooth flow of humanitarian logistics during disaster relief operations?
- 3.2 Were you able to travel from point A to B without any difficulties?
- 3.3 Were you able to communicate without any challenges with other stakeholders?

### **4.0 Views of participants on effective strategies that should be put in place in order to ensure rapid response in a disaster relief in Botswana**

- 4.1 What strategies should be put in place in order to mitigate challenges faced in humanitarian logistics in Botswana in order to promote rapid response? Give many suggestions as possible