



St. Mary's **ቅዱስ ማርያም**  
University **የኢኮኖሚክስ**  
**committed to excellence**

**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**PRACTICES AND CHALLENGES OF HUMANITARIAN LOGISTICS:  
THE CASE OF SELECTED INTERNATIONAL NON-GOVERNMENTAL  
ORGANIZATIONS IN ETHIOPIA**

**BY**  
**FUAD ISMAEL ADEM**

**MAY 2017**  
**ADDIS ABABA, ETHIOPIA**

**PRACTICES AND CHALLENGES OF HUMANITARIAN LOGISTICS:  
THE CASE OF SELECTED INTERNATIONAL NON-GOVERNMENTAL  
ORGANIZATIONS IN ETHIOPIA**

**BY**

**FUAD ISMAEL ADEM**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF  
GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR MASTER DEGREE IN GENERAL BUSINESS  
ADMINISTRATION**

**MAY 2017**

**ADDIS ABABA, ETHIOPIA**

**ST. MARY'S UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
FACULTY OF BUSINESS**

**PRACTICES AND CHALLENGES OF HUMANITARIAN LOGISTICS:  
THE CASE OF SELECTED INTERNATIONAL NON-GOVERNMENTAL  
ORGANIZATIONS IN ETHIOPIA**

**BY**

**FUAD ISMAEL ADEM**

**APPROVED BY BOARD OF EXAMINERS**

---

**Dean, Graduate Studies**

---

**Signature**

---

**Advisor**

---

**Signature**

---

**External Examiner**

---

**Signature**

---

**Internal Examiner**

---

**Signature**

## **DEDICATION**

*I dedicate this research work to my wife Rahma Mohammed*

## DECLARATION

I **Fuad Ismael** declare that this research paper entitled “**Practices and Challenges of humanitarian logistics:**” The case of selected international nongovernmental organizations in Ethiopia is my original work, and has not been presented for a degree or diploma in any other university and it is for partial fulfillment to the requirement of the program of Masters of Art (MA) Degree in Business Administration.

Declared by,

Fuad ISMAEL

---

Student Signature

---

Date

# TABLE OF CONTENTS

TABLE OF CONTENTS .....	i
LIST OF TABLES .....	iv
LIST OF ABBREVIATIONS AND ACRONYMS .....	v
ACKNOWLEDGEMENT .....	vi
ABSTRACT .....	vii
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1. Background to the study .....	1
1.2. Background of the organizations: Humanitarian aid Organizations .....	2
1.2.1. World Food Program (WFP) .....	3
1.2.2. World Food Program – Ethiopia Office .....	3
1.2.3. Structure and Organogram - WFP Ethiopia .....	4
1.2.4. International Organization for Migration (IOM) .....	4
1.2.5. Emergency Response .....	5
1.2.6. Structure and Organogram of IOM .....	5
1.3. Statement of the problem .....	6
1.3.1. Basic Research Questions .....	9
1.4. Objective of the study .....	9
1.5. Significance of the study .....	10
1.6. Scope and Limitation of the study .....	10
1.7. Organization of the study .....	11
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>12</b>
2.1. Theoretical Review .....	12
2.2. Definition and Concepts of Logistics .....	15
2.3. Overview of humanitarian Organization and Their missions .....	17

2.4. Fundamentals of Humanitarian Logistics .....	18
2.5. Challenges in humanitarian Logistics .....	20
2.5.1 Logistics: thinking in process and network .....	21
2.5.2 Transport Infrastructure (Access Constraints and Organization) .....	22
2.5.3 The disaster management cycle .....	22
2.5.4. Humanitarian Logistics: Challenges & Opportunities .....	23
2.5.5. The role of humanitarian Logistics during emergencies .....	23
2.6. Research trends in Logistics and Supply Chain Management .....	24
<b>CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>26</b>
3.1. Research Design .....	26
3.2. Population and Sampling Techniques .....	26
3.2.1 Target Population of the Study .....	26
3.2.2 Sampling Techniques .....	27
3.3. Types of Data and Tools/Instrument of Data Collection .....	27
3.4. Procedures of Data Collection.....	27
3.5. Methods of data Analysis .....	27
<b>CHAPTER FOUR: RESULTS AND DISCUSSIONS .....</b>	<b>28</b>
4.1. Introduction .....	28
4.2. General characteristics of respondents .....	28
Logistics Performance Indicators .....	30
We have enough qualified logistics employees at our disposal .....	32
The performance of our logistics system is well organized and structured .....	33
We've compelling external factors hindering our logistics operations.....	33
The role of logistics clusters are vital in emergency situations .....	34
The challenges of our logistics practice is typically arises from natural/ manmade..	34

Possible remedies needs to be taken .....	35
We have a valuable cooperation with vendors and get the products very fast .....	36
We clearly know who to contact if we have a logistics problem .....	36
The condition of the infrastructure in the country is very bad .....	37
The governmental procedures are very strict .....	38
The safety in the country (e.g. looting) is very hazardous .....	38
The logistics information we receive from logistics clusters is not enough .....	39
The quality of the trucks provided are poor and below standard .....	40
The information about what the beneficiaries need is not complete .....	40
The budget for our logistics tasks is too insufficient .....	41
We are facing challenges in scarcity of warehouse and information .....	42
4.2. Summary of Interview questions .....	43
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION .....</b>	<b>44</b>
5. Introduction .....	44
5.1. Summary of Major Findings .....	44
5.2. Conclusion .....	47
5.3. Recommendation .....	48
<b>REFERENCE .....</b>	<b>50</b>
Annex I: Survey Questionnaire .....	52
Annex II: Structured Interview Questions .....	57
<b>ENDORSEMENT .....</b>	<b>58</b>



<b>LIST OF TABLES .....</b>	<b>V</b>
Table 1. Logistics Performance Indicators .....	30
Table 2. We have enough qualified logistics employees at our disposal .....	32
Table 3. The performance of our logistics system is well organized and structured .....	33
Table 4. We've compelling external factors hindering our logistics operations.....	33
Table 5. The role of logistics clusters are vital in emergency situations .....	34
Table 6. The challenges of logistics practice is typically arises from natural/ manmade ...	34
Table 7. Possible remedies needs to be taken.....	35
Table 8. We have a valuable cooperation with vendors and get the products very fast ...	36
Table 9. We clearly know who to contact if we have a logistics problem .....	36
Table 10. The condition of the infrastructure in the country is very bad .....	37
Table 11. The governmental procedures are very strict .....	38
Table 12. The safety in the country (e.g. looting) is very hazardous .....	38
Table 13. The logistics information we receive from logistics clusters is not enough .....	39
Table 14. The quality of the trucks provided are poor and below standard .....	40
Table 15. The information about what the beneficiaries need is not complete .....	40
Table 16. The budget for our logistics tasks is too insufficient .....	41
Table 17. We are facing challenges in scarcity of warehouse and information .....	42

**LIST OF ABBREVIATIONS AND ACRONYMS..... v**

HA's	Humanitarian Agencies
HO's	Humanitarian Organizations
HLIS	Humanitarian Logistics Information System
IDP's	Internally Displaced Peoples
IFRC	International Fedaration Of Red Cross
IT	Informaion Technology
IOM	International Organization for Migration
LIS	Logistics Information System
LTA	Long Term Agreement
MSF	Medicins San Frontier
NGO's	Non Govermental Organizations
SCM	Supply Chain Management
SPSS	Statistics Package for Social Science
UN	United Nations
UNJLC	United Nations Joint Logistics Clusters
UNHCR	United Nations High Commissioner for Refugees
WFP	World Food Program
WHO	World Health Organization

## **ACKNOWLEDGEMENTS**

First of all I would like to use this opportunity to express my full gratitude to almighty Allah the creator and sustainer of the world, the most merciful, the most gracious who has helped me with all my hardships by giving health, strength and perseverance to start, continue and finish this study. Secondly, I would like to extend my heartfelt gratitude for the target population of this study that is logistics unit's staff's and managers in WFP and IOM for their valuable support and assistance i got from them. In addition, I am sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the study topic. Thirdly, I would like to thank from the bottom of my heart Dr. Solomon Markos (PhD) for his great patience, support, advice, encouragement and constructive comment which was essential for the success of this study. After lots of back and forth discussions with him, this paper finally become alive and I'm really grateful for everything I received from him. Last but not the least, I would like to thank my family: my spouse and my brothers and sister for supporting me spiritually throughout writing this thesis and my life in general.

## Abstract

*After World War II, Ethiopia began to receive economic development aid from the more affluent western countries. Originally the United Kingdom was the primary source of this aid, but they withdrew in 1952, to be replaced by the United States Edmond (1991). Since then the number of the NGO's has been increasing gradually and their contribution is invaluable as far as humanity concerned. This research work is intended to assess the practice and challenges of humanitarian logistics in case of selected two humanitarian organizations in Ethiopia, I.e IOM and WFP. The research questions used to assess the practice and challenges in managing humanitarian logistics whereby to what extent its expected performance level realized, what are the main contributions of implementing partners in relief aid activities and what are the reasons bottlenecks/constraints/challenges in accessibility of roads or infrastructures during relief aid dispatches. These questions were relevant to identify the practice and challenges with corresponding relevant factors that contributes for the success of any aid supply to vulnerable societies. Considering the size of the target population (homogeneous population), census survey has been used. Primary data were collected from 30 logistics and supply unit staffs and 2 managements through interview. Out of 30 questionnaires distributed only 22 were successfully returned back. Descriptive analysis method was used to calculate the outputs (mean and standard deviation) using the most prominent statistical software called SPSS. Based on the finding of the research most of the respondents emphasized that the condition of infrastructure facility in aid distribution areas is bad and there is a strict government procedure related to aid cargo clearance process within port Djibouti. Respondents also tend to strongly emphasize that there is a scarcity of warehouse space around aid distribution areas and lack of information management system prevail during pre-disaster time. In addition, the major finding of the research shows that quality of trucks provided by transport companies are poor and below standard. Hence, it's possible to conclude that bad condition of infrastructure, strict cargo clearance procedure, and scarcity of warehouse space and lack of appropriate information management system are the major challenges of case organizations has a potential to cut off those affected from aid assistance. Therefore both the government of Ethiopia (GoE) and case organizations needs to overcome these specific challenges collaboratively.*

**Key words:** *Logistics Management, Humanitarian logistics, Nongovernmental organizations.*

## CHAPTER ONE

### INTRODUCTION

#### 1.1. Background of the study

Relief logistics, in spite of the important role it plays in saving the lives of the victims, has not gained the due attention. (Reza, et al., 2009:224) explains for the same token, there is discrepancy among researchers as to the meanings and concepts thereof. According to Martin logistics can make a difference between life and death (Martin, 2013:10). He noted that the main distinction of humanitarian logistics from that of business logistics is that unlike business logistics, humanitarian logistics faces different challenges in terms of goals, content and process to those faced by commercial logistics (Martin, 2013:18). Similarly to commercial logistics operations, logistics in disaster response struggle with conflicting interests of stakeholders and with unpredictable demand. The motivation for private companies comes from being monitored and measured by profitability, but in the case of humanitarian logistics the output of the performance could be measured in human lives (Gyöngyi and Karen, 2012:210).

The concept of logistics typically refers to activities that occur within the boundaries of a single organization and supply chains refer to networks of companies that work together and coordinate their actions to deliver a product to market. Also traditional logistics focuses its attention on activities such as procurement, distribution, maintenance, and inventory management (Michael, 2003:3). Michael also noted on the same book that supply chain management acknowledges all of traditional logistics and also includes activities such as marketing, new product development, finance, and customer service.

Ahmed stated in his book that challenges and opportunities, the conditions under which a humanitarian organization's staff must work are extremely chaotic. Physical infrastructure such as roads, bridges and airports are often destroyed. National and local government, through which humanitarian organizations must often coordinate their activities, may be severely impacted, or even uprooted in the case of a conflict situation (Ahmed, 2016:17).

Human suffering should be relieved wherever found. It is the very reason why humanitarian organizations are deployed. Keeping in mind that in order to relieve suffering, humanitarian assistance brings scarce resources into societies affected by disaster and often experiencing social change, where the process of change itself often involves conflict (Tomasini and Wassenhove, 2009: 1-2). Delivering aid in an emergency situation is a complex process given the high levels of uncertainty, capacity and resources that characterize the needs. Humanitarian agencies work hard to fulfill their specific mandates and ensure that beneficiary needs are met in the quickest and most efficient way. Doing so requires in many circumstances joint efforts (partnerships) between different agencies to achieve the common goal. Partnerships between humanitarian agencies can take many forms ranging from informal agreements, to memorandum of understanding, or formal contracts (Gyöngyi and Karen, 2012:16).

Same authors noted that one of the most serious problems affecting the modern world is the vulnerability of nations or regions in relation to natural disasters such as earthquakes, floods, drought or man-made crises: civil unrest, war, political/tribal disturbance (Gyöngyi and Karen, 2012:46). There are various difficulties that can occur during a humanitarian aid operation. One of these is to access disasters which occur in landlocked countries, or landlocked regions of maritime countries, making the logistics of the response operation even more complex as, in the first case, it requires a neighboring state to be involved for transit.

This research topic is highly important because unlike a business logistics that typically established to generate profit, efficient humanitarian logistics has a potential to save life. Hence by taking this in to considerations, this study mainly assesses the practice and challenges of logistics elements in a case of two selected humanitarian organizations in Ethiopia.

## **1.2. Background of the Organizations: Humanitarian aid Organizations**

Humanitarian aid organization is a more general term, typically NGOs act as main players in humanitarian aid management when a disaster occurs. It is worth mentioning that humanitarian aid organizations involving in humanitarian aid activities include humanitarian agencies (HAs), NGOs, disaster relief organizations, and humanitarian organizations (HOs), etc. In this regard this study used humanitarian aid organization and NGOs interchangeably.

### **1.2.1. World Food Program (WFP)**

The World Food Programme is the world's largest humanitarian agency fighting hunger worldwide. In emergencies, WFP provide and distributes foods to where it is needed, saving the lives of victims of war, civil conflict and natural disasters. After the cause of an emergency has passed, food gets provided to help communities rebuild their shattered lives. WFP is part of the United Nations system and is voluntarily funded. Born in 1961, WFP pursues a vision of the world in which every man, woman and child has access at all times to the food needed for an active and healthy life. WFP work towards that vision with various sister UN agencies as well as other government, UN and NGO partners. WFP reaches more than 80 million people with food assistance in 82 countries each year. 11,367 people work for the organization, most of them in remote areas, directly serving the hungry poor.

### **1.2.2. World Food Program (WFP) – Ethiopia Office**

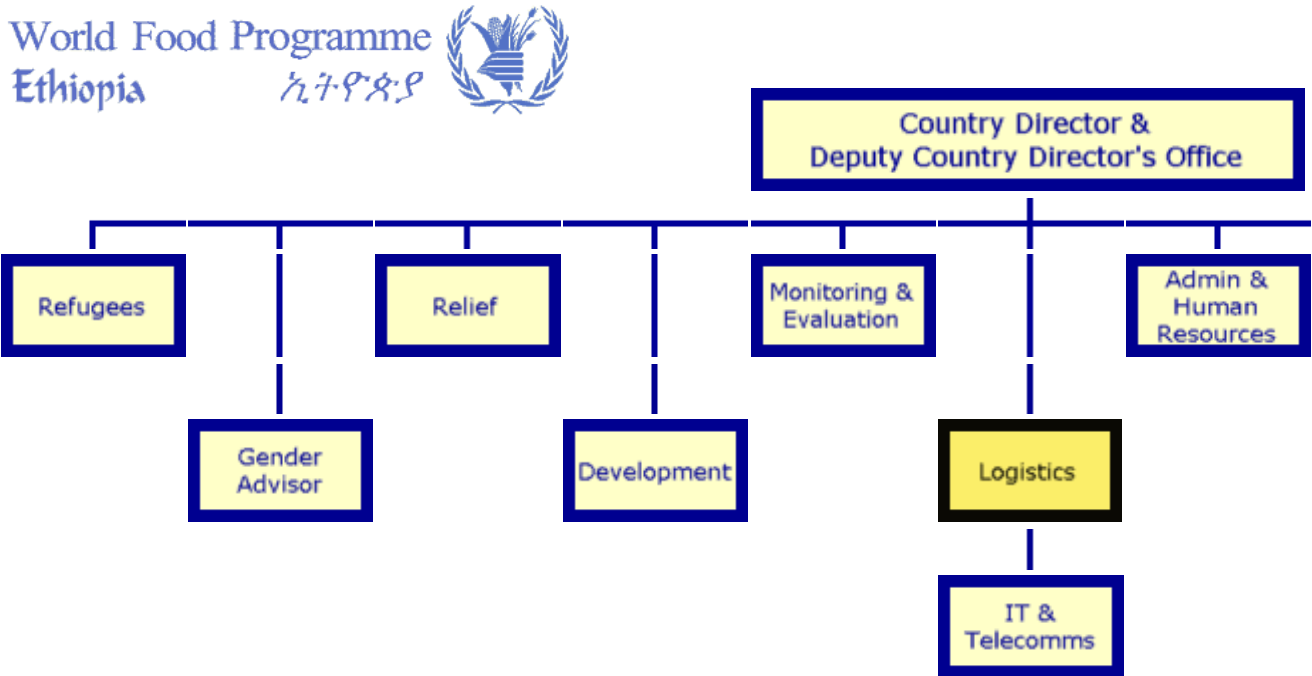
WFP Ethiopia office became the center for a new cluster grouping which comprises Djibouti as of August 1998. In addition to the central WFP country office in Addis Ababa, there are six sub-offices located in: Jijiga, Mekele, Dire Dawa, Dessie, Gambela and Nazareth. At times of acute crisis, WFP supports the Ethiopian Government in saving lives. They also support programs that use food assistance to empower women, transform areas affected by climate change and keep children in school.

Under the Country Director Office's management, relations with the government and the donor community have been improved and have been maintained at an excellent level of understanding and cooperation.

WFP's emergency operations cover three main kinds of crises:

- ⇒ Sudden disasters: natural disasters which affect food access and/or cause population displacements, and which require special UN coordination procedures.
- ⇒ Slow-onset disasters: these are usually droughts and crop failures.
- ⇒ Complex emergencies: these can involve conflict, widespread social and economic disruption and large population displacements and usually involve UN coordination.

### 1.2.3. Structure and Organogram - WFP Ethiopia



### 1.2.4. International Organization for Migration (IOM)

Established in 1951, IOM is the leading inter-governmental organization in the field of migration and works closely with governmental, intergovernmental and non-governmental partners. With 165 member states, a further 8 states holding observer status and offices in over 100 countries, IOM is dedicated to promoting humane and orderly migration for the benefit of all.

It does so by providing services and advice to governments and migrants. IOM works to help ensure the orderly and humane management of migration, to promote international cooperation on migration issues, to assist in the search for practical solutions to migration problems and to provide humanitarian assistance to migrants in need, including refugees and internally displaced people.



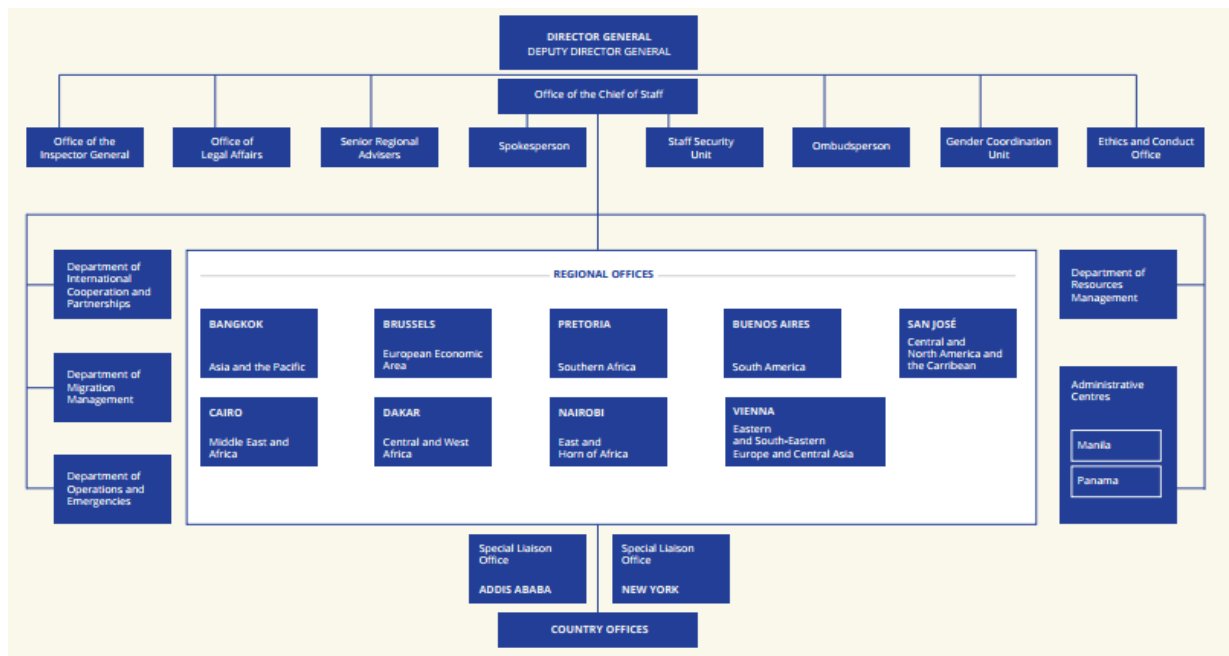
IOM works in the four broad areas of migration management:

- ⇒ Migration and development
- ⇒ Facilitating migration
- ⇒ Regulating migration
- ⇒ Forced migration

### 1.2.5. Emergency Response

IOM’s activities relating to emergency and post-emergency operations assistance focus on four phases of emergency intervention: mitigation, preparedness, response and recovery. Programme activities cover emergency relief, return, reintegration, capacity-building and protection of the rights of affected populations. IOM programmes in the post-emergency phase bridge the gap between relief and development by empowering communities to assist in the reconstruction and rehabilitation of affected areas as one of the ways to prevent forced migration.

### 1.2.6. Structure and Organogram – IOM



*On September 19, 2016* IOM joined the United Nations System as UN Migration Agency. For the very 71 years, the UN now has a “UN Migration Agency”.

### 1.3. Statement of the problem

In the late 1980s and early 1990s, we saw an evolution from logistics as an activity (i.e., bringing products from point A to point B) to supply chain management as a necessary function in integrating complex global networks of design, procurement, manufacturing, distribution, and sale (Rolando and Luk, 2009: 1-2). They noted that like the private sector, the humanitarians have had to look beyond basic logistics and use this supply chain management approach to coordinate the different players involved in a relief operation. Humanitarian Logistics is an exciting addition to the knowledge base of the humanitarian sector. For many years, humanitarian supply-chain and logistics specialists have provided exceptional (though often understated) services to the delivery of aid. These professionals often operate in volatile and changing environments where day-to-day operations are unpredictable and unplanned. **A conceptualized theory** (theoretical problem) from various literature suggests that humanitarian Logistics provides readers with a comprehensive overview of the sector, and the environment in which supply chains are planned, managed, and delivered. Chandra (2005) presented and compared the characteristics of commercial supply chains and humanitarian relief in Fig 1.1 below. The difference lies between the fact that in a corporate supply chain we have stockholders and customers, while in a humanitarian supply chain we have donors and beneficiaries. The direction of arrows gives an insight as to how the flow of materials and information takes place before and after disasters, respectively.

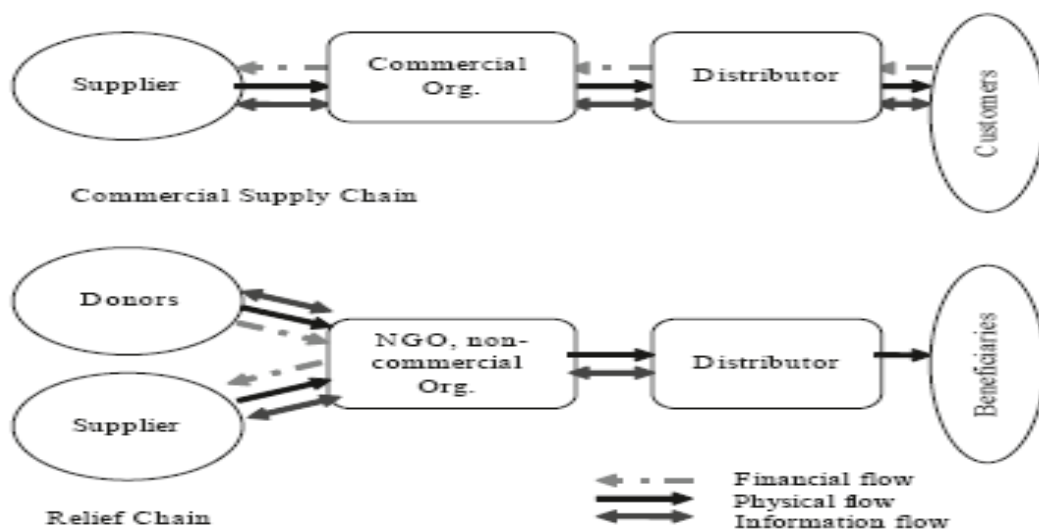
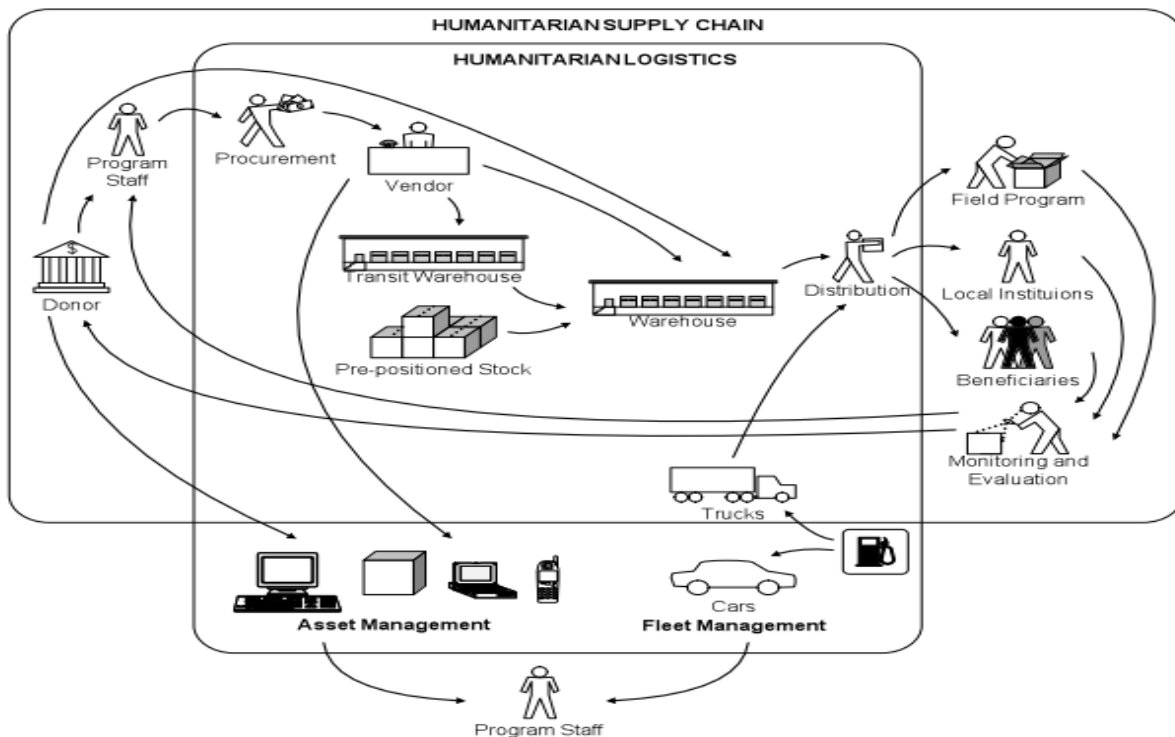


Fig. 1.1 Flows in a commercial supply chain and a relief chain Chandra (2005).

As per Ahmed (2016), he tries to present the scope of humanitarian supply chain and humanitarian logistics in Fig 1.2 as shown below.



According to Beamon (2004), relief supply chains usually have problems regarding their structures, distribution network configuration, inventory control, disaster assessment, cooperation and coordination, procurement uncertainties and limitations, and performance measurement. In addition to above-mentioned challenges, one can consider the followings:

- ⇒ Uncertainty in the number, location and presence of warehouses and distribution centers which pose problems for inventory storage, handling and logistics support.
- ⇒ Lack of information flow upstream the supply chain, which is vital for an efficient supply chain.
- ⇒ Destruction of/lack of basic and supporting infrastructure causing difficulty in setting up/supporting the relief supply chain.
- ⇒ Uncertain demand raises issues such as how much inventory to hold, and how much to reorder.

- ⇒ Bottlenecks can arise in the supply chain in terms of limited warehouse capacity, insufficient transport services.
- ⇒ Lack of co-ordination in the supply chain and lack of central command which leads to waste of some resources, scarcity of some other resources, duplication of efforts from government and external aid agencies/NGOs.
- ⇒ Presence of many relief agencies operating at the same time at the disaster location leads to competing and clogging of basic resources.
- ⇒ Different commodities have different lifespan, different production times, but use the same distribution, logistics, and warehousing resources (Chandra, 2005).
- ⇒ Lack of planning and preparedness – even for disasters with forewarning, the government has no proactive measures planned with respect to evacuation of cities/towns.
- ⇒ Lack of information systems – with a lot of manual procedures being involved, information regarding the relief work cannot be easily shared among the entities involved.
- ⇒ Lack of tracking and tracing of supplies – due to the lack of effective tracking and tracing systems, it is difficult to determine whether the supplies are enough to meet the demand of relief materials. Without tracing of these supplies, it is also tough to predict the response times of the relief efforts.
- ⇒ Lack of trained logisticians – the relief cannot reach the interior parts of the country due to the lack of trained logisticians as the government only attempts to get the aid to the district centers (Gupta and Mahadevan, 2005).

Therefore it's obvious that large number of people migrates or gets displaced because of man-made or natural disasters. Providing shelter, foods, non-food item aid becomes a vital aspect for humanitarian organizations to supply and provide to the vulnerable groups or the needy society. But it's argued that there are various possible challenges that has a potential to affect the relief aid operations. Some of these challenges (practical problems) are poor infrastructure in the country hindering the logistics activity, lack of information system, lack of coordination among partners, strict governmental custom/duty procedures, existence of poor quality trucks and vehicles to perform emergency operations, shortage of trucks to transport relief items to IDP's and beneficiaries, scarcity of warehouse facility during emergency time, weak & limited collaboration among supply chain partners during emergency time.

Hence logistics personnel's in humanitarian relief aid organizations needs to clearly understand the concept of supply chain management and humanitarian logistics with its key components. It's also must for them to know the reality that makes it successful. Indeed, the humanitarian logistics aspect is very new to the country as a result there are no research studies made earlier on the practical experiences of the new system as to the knowledge of the researcher. Therefore, this research study has assessed the actual practices of humanitarian logistics and identified the related challenges in the case organizations. Unlike other research topics these study specifically explored the common problems shared by both organizations as stated above and recommends a possible solutions for them.

### **1.3.1. Basic Research Questions**

Based on the above argument this research paper deeply investigated the logistics practice through key performance indicators or variables and related challenges in the case organizations (i.e WFP and IOM).

The research paper also presented an answer for the following basic research questions?

- What are the current practice of humanitarian logistics in the case organizations?
- What are the main challenges in managing humanitarian logistics?
- To what extent is the expected performance level of logistics realized?
- What are the main challenges/bottlenecks or constraints in accessibility of roads/infrastructures?

### **1.4. Objective of the study**

The general objective of the study is to describe the logistics practices and related challenges in the case of selected humanitarian organizations and come up with possible and applicable recommendations based on the findings obtained from the study.

The specific objectives of the study outlined as follows:

1. To assess the current humanitarian logistics practice and challenges.
2. To determine and evaluate the performance of humanitarian logistics.
3. To explore the impact of weak or good humanitarian logistics practice on human life.

### **1.5. Significance of the study**

This research paper will provide an opportunity for humanitarian organizations to recognize the gap in humanitarian logistics effectiveness and its potential impact in relief aid dispatch process. It will give a general insight for concerned organizations regarding the complex features of humanitarian logistics and to what extent its performance realized. Once the organization knows those gap, it can also apply the possible recommendations provided based on the findings obtained or formulate own policy actions to tackle the problems. Further this research paper can serve as a reference material either to students or researchers who want to undertake further researches on the same or related topics in future. Indeed, concerned organizations could understand the nature of humanitarian logistics as it has a potential to save life. In fact there are no ample research works done before on the same topic as to the knowledge of the researcher.

### **1.6. Scope and limitation of the study**

The case organizations (IOM and WFP) had a centralized procurement and logistics system, meant their main procurement and logistics activities are fall under their respective head offices located in Addis Ababa, Bambis Area's. Consequently, the boundaries for this study within which all the primary information or data collected, analyzed and interpreted focuses on the given department of both organizations. The study doesn't want to consider the donors and beneficiary part as the scope of the study is humanitarian logistics (see Fig 1.2 above). The major limitation of this study includes inaccessibility of staffs especially the involved in food and non-food item distributions and IDP's due to budget and security issues.

## **1.7. Organization of the study**

The research paper is organized in to five chapters. Chapter one presents the background of the study and case organizations, statement of the problem, objective of the study, significance of the study and scope of the study. Chapter two assessed related theoretical literatures that written by various authors. Chapter three presents the research methods and methodology that is used to conduct this research paper. Chapter four includes results and discussions. Chapter five presents the major findings of the study with its recommendation and conclusion. The reference and appendixes also presented accordingly that contain the questionnaires of the survey forms used to collect primary data for this work.

## CHAPTER TWO

### LITERATURE REVIEW

In this section, the study reviewed related theoretical literatures along with logistics concept in lieu with humanitarian and business context. Different authors define the logistics in different ways. Some of the definitions are discuss as follow:

#### **2.1. Theoretical Review**

The term “supply chain management” arose in the late 1980s and came into widespread use in the 1990s. Prior to that time, businesses used terms such as “logistics” and “operations management” instead. Some definitions of a supply chain are offered below:

*“A supply chain consists of all stages involved, directly or indirectly, in fulfilling a customer request. A supply chain not only includes the manufacturers and suppliers, but also includes transporters, warehouses, retailers, and customers themselves” (Michael, 2003:2).*

Over the last two decades there has been a dramatic broadening of the scope of logistics and supply chain management in many organizations. Previously logistics – or, more properly, distribution management – was seen as being primarily a concern with transportation and warehousing. As such, the focus of managerial effort tended to be on cost minimization and the ‘optimization’ of networks and resources. Whilst the need for efficient distribution is still as strong now as in the past, there is a widely held view that the real task of supply chain management is to co-ordinate the wider end-to-end pipeline. In-bound logistics is just as critical as the distribution of final product under this paradigm and the emphasis is now on time compression from one end of the supply chain to the other (Christopher, 2011:219).

In the late 1980s and early 1990s, we saw an evolution from logistics as an activity (i.e, bringing products from point A to point B) to supply chain management as a necessary function in integrating complex global networks of design, procurement, manufacturing, distribution, and sale. This occurred in parallel with increased outsourcing of logistics activities to third-parties for reasons of cost as well as scope (“logistics is not our core competence”) (Rolando and Wassenhove, 2009: 1-2). Like the private sector, the humanitarians have had to look beyond basic logistics and use this supply chain management approach to coordinate the different players



involved in a relief operation. Humanitarian Logistics is an exciting addition to the knowledge base of the humanitarian sector. For many years, humanitarian supply-chain and logistics specialists have provided exceptional (though often understated) services to the delivery of aid. These professionals often operate in volatile and changing environments where day-to-day operations are unpredictable and unplanned. Humanitarian Logistics provides readers with a comprehensive overview of the sector, and the environment in which supply chains are planned, managed, and delivered (Ibid).

It is to be hoped that this book prompt greater investment of effort and resources in increased understanding of the complex nature of humanitarian logistics, and ultimately the development of supply-chain management as a key foundation to the delivery of aid. I would recommend it to any individual, team, or organization that delivers both humanitarian and development assistance, as it provides a standard knowledge base from which we can all learn, develop, and excel (Charl, 2010: 305-307). Although humanitarian logisticians can learn from and work with private sector logisticians their work in the context of a natural or man-made disaster is very different from logistics in the business context.

As the recent relief effort in the Indian Ocean shows, the biggest hurdle facing humanitarian logistics teams has been the sheer complexity of the operating conditions within which they had to work in order to supply aid to those affected. In this particular case, thousands of kilometers of coastline were hit. Such areas are already difficult to reach under normal circumstances because roads are often inadequate but following the disaster the original infrastructure had been completely destroyed. Humanitarians need robust equipment that can be set up and dismantled quickly enabling them to be extremely adaptable and prepared for the unexpected as circumstances can change very quickly from one moment to the next.

Unfortunately, logisticians in this sector often have to work with fragmented technology and poorly defined manual processes. 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. High staff turnover, often through burn-out in response to the emotional and physical demands on them, means that skilled staff are always in short supply. Unlike private sector logisticians, humanitarians often have to

contend with many stakeholders, including large numbers of uncoordinated and disparate donors, the media, governments, the military not to mention the final beneficiaries. At any one time, there can be as many as several hundred humanitarian organizations at the scene of a disaster, not always acting in a coordinated fashion. All with different political agendas, ideologies and religious beliefs and all fighting for media and donor attention. The greatest challenge here lies in aligning them without compromising their mandates or beliefs.

As mentioned above, donors have become particularly influential in prompting humanitarian organizations to think in terms of greater donor accountability and transparency of the whole supply chain. The role of the media in humanitarian logistics is also something with which private sector logisticians rarely have to contend. It can best be described as a love-hate relationship born out of a need to highlight the plight those affected by disaster (Journal of Operation Research Society, 2006:475-477).

Unlike the private sector where the bottom line motivates the constant need to measure performance and invest in improving it, the humanitarian sector operates without the market forces of demand and supply regulated through price. In the private sector, performance is rewarded by the market (eg stock market, higher revenues and profits) and internal incentive schemes such as bonuses, stock options and so on, which feeds a culture of continuous improvement. This is in stark contrast to the humanitarian sector where, until now, there has been little incentive to use the lessons learned from disasters to improve performance next time around (Ibid).

In business context, the main logistics area were flow of materials and transport technology. In the first phase of academic work on logistics, investigations concentrated on distribution as a decisive element aimed mainly at achieving the marketing goals of readiness capabilities and delivery time (Martin, 2013:13). Thus up to 1970s logistics was reduced to the basic function of transportation, transshipment, warehousing, packaging and order picking. It was considered a subordinate offshoot within the within individual functional sectors of an enterprise, such as procurement, production or distribution, and its only task was to ensure the availability of materials and goods within the production process. (Ibid).

## 2.2. Definition and Concepts of Logistics

Reza explains, the word “logistics” is derived from the Greek adjective “logistikos” meaning “skilled in calculating” (Reza, et al., 2009:1).

Different authors defined the term logistics differently and it’s quoted directly as follows:

According to Alan and Steve, logistics is defined as,

*“Logistics can be defined as the process of planning, implementing and managing the movement and storage of raw materials, work-in-progress inventory, finished goods and the associated information from the point of origin to the point of consumption” (Alan and Steve, 2007:5).*

Another author defines the logistics as follows:

*“Logistics is the flow of material, information, and money between consumers and suppliers” (Edward, 2002:5)*

As far as the definition of logistics concerned, **Edward** in his book tries to clear up some of the potential confusions arises in using logistics definitions in different context that serves a presentation of the evolution of logistics. In the 1950s and ‘60s, the military was the only organization using the term logistics. There was no true concept of logistics in private industry at that time. Instead, departmental silos including material handling, warehousing, machining, accounting, marketing, and so on, were the norm. The five phases of logistics development—workplace logistics, facility logistics, corporate logistics, supply chain logistics, and global logistics—are plotted in. There is a lot of confusion surrounding the terms logistics and supply chain management. He distinguish the two by explaining that the **supply chain** is the network of facilities (warehouses, factories, terminals, ports, stores, and homes), vehicles (trucks, trains, planes, and ocean vessels), and *logistics information systems* (LIS) connected by an enterprise’s suppliers and its customer’s customers time (Ibid). **Logistics** is what happens in the supply chain. Logistics activities (customer response, inventory management, supply, transportation, and warehousing) connect and activate the objects in the supply chain. *To borrow a sports analogy, logistics is the game played in the supply chain arena* (Edward, 2002:8).

According to Edward, Logistics is comprised of five interdependent activities: customer response, inventory planning and management, supply, transportation, and warehousing (Edward, 2002:12). However the objective of each activity is different. From the overall definition we can understand that logistics is the management of all activities which facilitate movement and the co-ordination of supply and demand in the creation of time and place utility. Logistics management is essentially an integrative process that seeks to optimize the flows of materials and supplies through the organization and its operations to the customer (Donald, 2012:3). Logistics management...is the means whereby the needs of customers are satisfied through the co-ordination of the materials and information flows that extend from the marketplace, through the firm and its operations and beyond that to suppliers (Christopher, 2011:12). Logistical elements such as infrastructure, means of transport and transport planning, distribution centers, cold chain, security of goods and supply chains, information management and other things represent decisive determinants of successful collaboration in development work and disaster management. The potential of humanitarian logistics can be seen on the hand from the perspective of the players or originations, on the other hand from a national vie point for the economic and humanitarian development of a country and its population (Martin, 2013:24). The scope of business logistics spans the organization, from the management of raw materials through to the delivery of the final product (Christopher, 2011:11).

### **2.3. Main features of humanitarian logistics**

Humanitarian Logistics refers to the processes and systems involved in mobilizing people, resources, skills and knowledge to help vulnerable people affected by natural disasters and complex emergencies. Humanitarian logistics encompasses a range of activities, including procurement, transport, tracking and tracing, customs clearance, local transportation, warehousing and last mile delivery (Ahmed, 2016:15). The main distinction of humanitarian logistics from that of business logistics is that unlike business logistics, humanitarian logistics faces different challenges in terms of goals, content and process to those faced by commercial logistics (Martin, 2013:18). Similarly to commercial logistics operations, logistics in disaster response struggle with conflicting interests of stakeholders and with unpredictable demand. There are differences between humanitarian logistics and commercial logistics.

The motivation for private companies comes from being monitored and measured by profitability, but in the case of humanitarian logistics the output of the performance could be measured in human lives (Gyöngyi and Karen, 2012:210). Logistics typically refers to activities that occur within the boundaries of a single organization and supply chains refer to networks of companies that work together and coordinate their actions to deliver a product to market. Also traditional logistics focuses its attention on activities such as procurement, distribution, maintenance, and inventory management. Supply chain management acknowledges all of traditional logistics and also includes activities such as marketing, new product development, finance, and customer service (Michael, 2003:3).

In research, logistics performance is often referred to as the logistics performance of a company, organizations, a supply chain or a supply chain network. In this study we are however looking at country specific logistics performance. There is a limited amount of research conducted on country specific logistics performance, but there are indicators developed to measure that performance. Logistics performance indicators and different indexes are used to indicate what a country's logistics performance is. There are several different types of performance indicators and several different factors that are included in the calculation. Logistic performance indicators are often indicators that are calculations of different factors that influence the logistics performance in the area. Indicators of time, indicators of costs and indicators of complexity and risk factors can be included (Gyöngyi and Karen, 2012:211). Delivering aid in an emergency situation is a complex process given the high levels of uncertainty, capacity and resources that characterize the needs. Humanitarian agencies work hard to fulfill their specific mandates and ensure that beneficiary needs are met in the quickest and most efficient way. Doing so requires in many circumstances joint efforts (partnerships) between different agencies to achieve the common goal. Partnerships between humanitarian agencies can take many forms ranging from informal agreements, to memorandum of understanding, or formal contracts (Gyöngyi and Karen, 2012:16).

### **2.3. Overview of humanitarian Organization and Their missions**

Natural disasters, which include events such as earthquakes, floods, result in the temporary displacement of approximately five million people The humanitarian organizations receiving donations from this global community include entities operating under the United Nations

umbrella such as the World Health Organization (WHO) and the United Nations High Commissioner for Refugees (UNHCR), international organizations such as the International Federation of Red Cross and Red Crescent Societies (IFRC), and global non-governmental organizations (NGOs) like CARE and World Vision, as well as regional and country-specific NGOs. Humanitarian organizations usually include logistic units which can have different functions depending on the organizations or even the disaster and can include: Procurement, Warehousing, Fleet Management, Transportation (of both supplies and people), Asset Management, Building Management, Security, and Information Technology (IT), Radio Communications...etc Humanitarian logistics information system (HLIS) enhance needs assessments by ensuring the field staff know what supplies are available for beneficiaries, either in local warehouses, pre-positioned emergency stocks (Dr. Ahmed 2016:2-7).

#### **2.4. Fundamentals of Humanitarian Logistics**

Logistics performance has been proven to have an impact on trade competitiveness but why is it important in disaster response? The commercial supply chain can be seen as a process of managing the flow of goods, information and finances from the source to the final customer (Gyöngyi and Karen, 2012:210). Disaster response is characterized by numerous factors of uncertainty which do not exist in the commercial sector. In most cases, the beneficiaries, their location and their needs are unknown. A relief operation is therefore characterized by demand uncertainties in the form of location, type and volume (Beamon and Balcik, 2008).

The lack of preparedness in the humanitarian sector can be due to the unpredictability of the event, or due to the affected countries not having capacity for disaster preparedness and/or organizations not having funds allocated for planning. Organizations rarely have funds for planning and preparing since donors are hesitant to provide funds in advance to humanitarian organization in the fear of them “spending the money on heavy administration instead of saving lives (Ibid).

In the context of humanitarian aid, logistics assumes a central bridging function yet the various players have widely differing opinions on its significance and the allocation of tasks. This literature outlines the essential features; starting from the basic principles of commercial logistics, the special circumstances and aims of humanitarian logistics are established. Building on this and in line with existing work, the research goals of this work are established (Martin, 2013:13).

According to Baumgarten as cited in Martins book, humanitarian logistics includes education, vocational training and all the process connected with the planning, implementation and management of relief items, resources and personnel. Besides the flow of food, healthcare products, water preparation plants, sanitation facilities, temporary accommodation...etc. This also includes the associated flow of information and funding (Martin, 2013:18).

The task of humanitarian logistics as part of humanitarian aid is then to help people affected by or whose lives are threatened by emergencies, such as earthquakes, volcano eruptions, flooding, or chronic disasters such as hunger, malnutrition, lack of medical care. Humanitarian logistics is therefore not simply the distribution of relief items. In a wider context it supports communities in establishing their own infrastructure, helping themselves. The distinction between humanitarian logistics in emergencies and chronic disasters is at least partly relevant for practical procedures too. So for acute disasters, particularly sudden natural disasters, it is important to create supply chains with a high throughput capacity in order to be able to supply as many aid goods to the affected region as possible. Moreover, speed is essential in order to be able to provide people with urgently needed goods within a short time (Ibid).

Logistics core competencies refer to superior internal routines and management activities (transportation, warehousing, inventory management and related lot quantity issues, order processing, and customer service) that may provide an important source of sustainable competitive advantage that firms accumulate over time and satisfy customers' requirements better than competitors. Developing logistics competence involves a complex interaction of human and physical resources (Transportation Journal, 2007:41).

Planning for a disaster is often focused on developing the capacity to respond. In spite of where in the world a disaster occurs, preparedness plays a crucial role in the possibilities to respond to the disaster. Part of being prepared is good logistics performance in the country or the area of the disaster and availability of resources such as infrastructure, supplies. Part of being prepared as a humanitarian organization is to have the knowledge of a country's logistics performance (Gyöngyi and Karen, 2012:211).

## 2.5. Challenges in humanitarian Logistics

According to Martin the possible challenges in humanitarian logistics are categorized in three dimensions, these are: **Physical:** Access to affected areas due to destruction or absence of infrastructure, Infrastructural accessibility to seasonal climate influence, Limited choices as regards routes and traffic notes, Inefficient service sector in developing countries, Insufficient and unreliable transport, handling and storage capacities, Insufficient quantities of aid goods, “fair” and/ or efficient distribution difficult, Price agreements of local transport providers, Security aid goods and personnel **Information related:** Difficult needs assessment and exception of the beneficiaries, Limited IT infrastructure, little funding available, Incompatibility of the systems within the companies and service providers involved, Hardly any central data recording, coordination and administration of data within the aid agencies, Tracking so shipments rarely possible in areas in crisis and developing countries, Lack of communication and exchange information between organizations (vertical and horizontal). **Organizational:** Often uncertain political conditions, Bureaucracy and corruption in the recipient countries, Lack of transparency as regards responsibilities, Involvement of commercial and non-commercial organizations, Few staff trained in logistics within the aid agencies, instead many volunteers and people without experience, Lack of adequate facilities for logistics training in developing and newly industrialized countries, Bias towards donation for short-term aid projects rather than investment in an efficient structure of systems within the aid agencies, Stakeholder coordination and cooperation (Martin, 2013:24).

With the exceptions of some organizations such as Medicines Sans Frontiers (MSF) or the World Food Program (WFP), which have made the distribution of relief items their top priority, the core competence of humanitarian organizations lies in fields such as medicine, education, protection and economic development. Logistics is seen only as a secondary function and is not anchored within the organization at all, or only to an operational extent. But the effectiveness of humanitarian aid for people in emergency and crisis situations is essentially dependent on logistics capabilities. Logistics can also be a success factor for aid agencies in the completion for donations, it facilitates or accelerates the whole chain of humanitarian operations, from purchasing and storage to distribution of aid goods, and it also lends transparency (Ibid).



According to Michael, the principal interrelationships between logistics and other organizational functions are: the relationship between the marketing function (or noncommercial equivalent) and the physical distribution sub function of logistics, and the relationship between the manufacturing function and the physical procurement and materials management sub functions of logistics. However, for the organization to be properly served by an effective logistics system, similar coordination problems have to be solved in both interrelationships. Logistics is concerned with activities from throughout the enterprise. These activities interact for purposes that are to the enterprise's benefit. Materials flows affect all parts of an organization and its relations to other organizations (Michael, 2006:155)

The twin objectives of logistics are: to minimize logistics costs, and to optimize customer service levels (and ideally to do both simultaneously). These objectives are achieved by trade-offs between these sub functions and functions so as to minimize total logistics costs and/or optimize total logistics service levels. To take the first objective, costs may be deliberately incurred in one function or sub function in order that the performance across several functions or sub functions may be optimized. To put it more simply, total logistics costs can be minimized by balancing individual logistics costs. For example, the more depots a company owns, the less its transport costs but the more its depot investment and running costs. Total logistics management requires to be built around the search for cost and service trade-offs to improve efficiency. There is a clear need for the development of information systems sophisticated enough to support the demands of comprehending the detail of costs trade-offs, cost versus service level trade-offs, and trade-offs within varieties of service. Equally as important is having the skilled personnel to conduct logistics management (Michael, 2006:156-158).

### **2.5.1 Accessing Disaster Areas**

Recent natural disasters have emphasized the importance of emergency relief response logistics. One of the most serious problems affecting the modern world is the vulnerability of nations or regions in relation to natural disasters such as earthquakes, floods, drought or man-made crises: civil unrest, war, political/tribal disturbance (Gyöngyi and Karen, 2012:46). There are various difficulties that can occur during a humanitarian aid operation. One of these is to access disasters which occur in landlocked countries, or landlocked regions of maritime countries, making the

logistics of the response operation even more complex as, in the first case, it requires a neighboring state to be involved for transit (Ibid).

### **2.5.2. Transport Infrastructure (Access Constraints and Organization)**

From the point of view of access and supply chain organization, what immediately became apparent was the barrier presented by the destruction of the local port which had the inevitable effect of diverting virtually all the first phase response through the main airport of Port-au-Prince which itself did not entirely escape damage. In particular, the control tower was damaged affecting flight management for several days immediately after the earthquake. A further hindrance to the relief effort was the destruction of the headquarters of the United Nations Stabilization Mission in Haiti, which severely hampered the UN's ability to respond and coordinate activity in the immediate aftermath of the earthquake. The earthquake damaged almost every part of the country's transport infrastructure with air, land, and sea transport facilities all affected. The overall picture was one of large scale, chaotic delivery of aid via the airport, where cargo rapidly accumulated for need of local distribution capability, and by sea where damage to both the port infrastructure and superstructure necessitated sea-basing using, for example, military carriers from which aircraft and helicopters fulfilled final delivery requirements (Ibid).

### **2.5.3 The disaster management cycle**

1. **PREPAREDNESS:** The preparedness phase involves building the capacity to respond to a disaster, such as (working with communities to ensure they know evacuation options, pre-positioning emergency response supplies and building organizational capacity to respond to disasters) Pre-positioned emergency response supplies tend to be less varied, as they are specific life supporting items, such as ((food, medical supplies, water and sanitation equipment, shelter, household kits, etc...)). 80% of the disaster response phase consists of logistics activities in the preparedness phase.
2. **RESPONSE:** The response phase occurs immediately after the disaster, and activities are focused primarily on saving lives and preventing further damage. Humanitarian operations: they distribute food, medical supplies and other necessities of life to affected populations, and lives be dependent on the speed of logistics activities. The response phase may last from days to months, depending on the scale of the disaster.

3. **TRANSITION:** During the transition phase NGOs begin to look at providing ongoing assistance, such as temporary shelter and revitalizing basic social services. NGOs also plan strategically to transition from implementing response activities to longer term recovery and mitigation programs. Logistics activities: such as identifying suppliers to in either local or international markets to provide supplies for longer term programs, ensure a smooth transition.
4. **RECOVERY:** The recovery phase involves aiding communities to return to their conditions prior to the disaster. These activities include: training people and distributing supplies for livelihood, building reconstructing houses and infrastructure. The recovery phase represents a significant proportion of the duration and funding of a humanitarian operation and may last from 5-10 years.
5. **MITIGATION:** Involves increasing the resilience of communities to natural hazards to reduce the impact of disasters, these activities include: planting mangroves to protect coastlines against cyclones, constructing dams and reinforcing buildings (Dr. Ahmed, 2016:9-13).

#### **2.5.4. Humanitarian Logistics: Challenges & Opportunities**

The conditions under which a humanitarian organization's staff must work are extremely chaotic. Physical infrastructure such as roads, bridges and airports are often destroyed. National and local government, through which humanitarian organizations must often coordinate their activities, may be severely impacted, or even uprooted in the case of a conflict situation (Dr. Ahmed, 2016:16-17). Lack of Recognition of the Importance of Logistics: Most humanitarian organizations have two broad categories of activities: programs and support services. Lack of Professional and Inadequate Use of Technology plus Lack of Institutional Learning Limited Collaboration.

#### **2.5.5. The role of humanitarian Logistics during emergencies**

As described by the United Nations joint logistics center (UNJLC, 2008) humanitarian logistics during emergencies requires: Delivery of the appropriate supplies in good condition, when and where they are needed, a wide range of transport, often improvised at the local level limited, rapid, and specific deliveries from outside the area affected, A system of prioritizing various relief inputs, Storing, staging, and moving bulk commodities, Moving internally displace people

(IDP's). The main factors in the operating environment which shape the response to humanitarian crises are: Capacity of the infrastructure, Availability and quantity of transport assets in the country, Politics of the situation and Civil conflict in the area of operations (Dr. Ahmed 2016:25).

## **2.6. Research trends in Logistics and Supply Chain Management**

The book of Sachan and Datta (2005), have shown the status of SCM and logistics research from research methods' standpoint, data analysis techniques, data sources, and levels of analysis. They have shown that present researches are more rigorous than past ones. Rigor implies care in avoiding randomly concluding any results the research did not actually reveal. It means that research should represent reality and output should be applicable in real life problems. Then, only the research community can actually support and justify the claims it makes. The following points offer some direction for future research. Earlier SCM and logistics researchers have looked at the operational and financial aspects of supply chains. Major problems were inventory management, network optimization, facility layout and locations and demand forecasting. The most common research methods used were simulations and mathematical modeling. Researchers were also interested in finding out the "whatness" of the aspect of the phenomenon for which the survey method was used. But, with time and maturity in the discipline, the research questions changed to "how" and "why". In addition, the nature of problems also changed; problems such as, how functions within a company can be integrated, how companies can coordinate their activities, and the chain of customer service to customer satisfaction to customer value (Ibid).

All these problems involve behavior issues and are affected by factors like culture, relationship, trust and power. This brings the opportunity to behavioral research methods, which can bring more insights to what we know about supply chain today (Reza, et al., 2009:15). According to Gyöngyi and Karen, The scale and gravity of the two earthquakes at Wenchuan and Haiti highlight the scope for further research in several areas. There is clearly a need for contingency planning, covering a range of 'what if...' scenarios prior to the occurrence of large-scale emergencies. At the implementation stage, a flexible approach to the engagement of external agencies, especially where international help is required, should be encouraged. The unique nature of major earthquakes such as those discussed above highlights the considerable need for flexibility. In addition, a review of relationships between military and non-military bodies, government and non-government agencies and other relevant parties would be fruitful in shedding

light on the possible options for future similar emergencies. With regard to specific supply chain issues, there is need for further research in the area of strategic stockholding for cargo allocated to emergencies, embracing locational issues and suitability of the cargo itself. This extends into an examination of the link between initial needs assessment, appeals launch and cargo mobilization. Finally, with specific reference to supply chain dynamics, there is considerable scope for examining in greater detail the relationships between route, method, mode and carrier in a given emergency to ascertain whether time, cost or risk should be minimized or whether a compromise solution should be reached (Gyöngyi and Karen, 2012:59).

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

This part of the research explains the research design and methodology deployed in order to undertake this specific research work. Among the types of different data collection method and/or source, this study used both the primary and secondary sources. It has included some very important sub topics which are discussed as follows.

#### **3.1 Research design**

This study employed a descriptive or explanatory research design as the main objective of the study is to assess the practice and challenges of humanitarian logistics. The study applied a mixed approach both qualitative and quantitative in which a questionnaire was used to obtain the quantitative data and interview guide was used to gather a qualitative data. Selecting of the descriptive research method helped to describe the research findings using major statistical measures such as mean, median and standard deviation.

#### **3.2 Population and Sampling Techniques**

A total population of the study comprises all employees of the logistics department within the organizations head offices. There are 30 permanent logistics employees in case organizations, therefore the boundaries for this study within which all the primary data collected, analyzed and interpreted focuses on the given logistics department employees of both organizations.

##### **3.2.1 Target Population of the Study**

Target population of the study is all 30 permanent employees of Logistics and supply unit working in IOM and WFP, the logistics system is centralized at head office level therefore they are a homogeneous population with a population size of 10 (1 International & 9 national) and 20 staffs (4 international & 16 national) in IOM and WFP respectively.

### **3.2.2 Sampling Techniques**

Considering the small size of the target population (homogeneous population), census survey method has been used to collect a primary data from 30 permanent logistics and supply unit staffs and 2 managements through interview.

### **3.3 Types of Data and Tools/Instrument of Data Collection**

This study used both primary and secondary data types that collected from all employees of the logistics department and the general logistics officers within the organization.

The study used the most basic primary data collection tools/instruments such as census survey/questionnaire comprising of both open and close end questions, and structured interview guides. The survey questionnaire was the main data collection tool used to collect data from logistic employees. Whereas the interview guide were used as a supportive primary data collection tool.

### **3.4 Procedures of Data Collection**

Prior to undertaking the actual works of data collection, the researcher carried out the necessary activities which were prerequisite to the success of the data collection. Designing of the questionnaire with the required copies and the interview guide were the one. Then the researcher requested for arrangement the right time when to distribute and collect the questionnaires and undertake the interview with the selected managements. Frankly speaking there was a frequent schedule revision to the interview session and finally succeed at the final stage.

### **3.5 Methods of Data Analysis**

Finally all the collected are summarized, analyzed, evaluated, presented and interpreted. To summarize, present and analyze the collected data, the study incorporated appropriate tables. Furthermore, the study used a descriptive statistics such as mean, standard deviations, medians, modes and percentages to summarize the respondents consecutive answers to each questions provided to them with the questioner.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

#### **4.1 INTRODUCTION**

Under this chapter, the study analyze all the information that is gathered through questionnaire that supported by interview. From the 30 questionnaires distributed to both organizations only 22 (73.33 percent) questionnaires were filled and returned back to the researcher. The data collected via questionnaire were summarized, organized and analyzed using statistical software called Statistical Package for Social Science/SPSS. Descriptive statistics method was mainly used to analyze the data. Their response rate is 100 % of what requested in the survey.

The respondents answer is organized and summarized based on appropriate percentage, frequency tables, mean and mode. Under each tables, the corresponding finding and interpretations (implications) are presented for each question accordingly. To do so, this study gives priority for the general characteristics of the questionnaires respondents.

*This are examined as follows.*

#### **4.2 General characteristics of the respondents**

As indicated in the population and sampling technique section in chapter 3, the study select, distributed and received 22 questionnaires out of 30 logistics and supply department employees (respondents). The characteristics of the study respondents are summarized in below table no 1.

As far as educational background concerned, the majority of the respondents (employees), about 63.64 % (14) of them are BA Degree holders whereas about 27.27% (6) of them Master holders. The remaining respondents about 9.09% (2) of them are Diploma holders. Regarding age composition of the respondent, about 59.09% (13) and 22.73% (5) of them are 31 – 39 and 20 – 29 ages respectively. The rest 18.18% (4) of them however are above 50 years of age.

In other hand, when we see the respondents' job experience, about 27.27% (6), 40.91% (9) and 31.82% (7) are below 5 years, 5 – 10 years and above 15 years of experience respectively.



**Table 1. General characteristics of the respondents**

<b>Demographic Factors and Classifications</b>	<b>Number of respondents (frequency/ n=22)</b>	<b>Percentage (%)</b>
<b>Educational Background</b>		
Diploma	2	9.09
BA Degree	14	63.64
Masters	6	27.27
<b>Age of respondents</b>		
20 - 29	5	22.73
31 - 39	13	59.09
Above 50	4	18.18
<b>Experience (In years)</b>		
Below 5	6	27.27
5 – 10	9	40.91
Above 15	7	31.82
<b>Total Respondents</b>	<b>22</b>	<b>100.00</b>

From the above demographic factors it's clear that the department's employees are found in a high productive age level and the respondents also exist in a good position that is a desirable criterion for logistics experts. Furthermore, logistics' employees are found in a good age composition level whereby junior staff can have an opportunity to learn more from senior staffs. This implies that all the respondents (logistics staffs) are qualified and expected to understand the broader concepts of humanitarian logistics. This qualification indeed will help them to contribute for the objective of the organization. i.e responding to disasters quickly in collaboration with other implementing partners.

Obviously assessment of logistics requirements are vital, in any humanitarian organizations, there must be high needs for a logistics assessments since they regularly engages in relief aid sourcing and distribution activities. As we can see the below table no 2, most of the respondent about 4.55% (1), 22.73 (5), 27.27 (6), 36.36 (8) and 9.09 (2) of the respondents tend to rate their organizations assessment of logistics requirement performance as poor, good, average, very good and excellent respectively. The mode shows the assessment of logistics requirement is very good as well.

**Table 2. Logistics Performance Indicators**

Logistics Performance Indicators	Ratings										MD	SD	MO
	P = 1		G = 2		A = 3		V. G = 4		E = 5				
	F	%	F	%	F	%	F	%	F	%			
<b>Assessment of Logistics Requirement</b>	1.00	4.55	5.00	22.73	6.00	27.27	8.00	36.36	2.00	9.09	<b>5.00</b>	<b>2.88</b>	<b>V.G</b>
<i>Preparing and Planning</i>	1.00	4.55	1.00	4.55	6.00	27.27	13.00	59.09	1.00	4.55	<b>1.00</b>	<b>5.27</b>	<b>V.G</b>
<b>Procurement</b>	0.00	0.00	2.00	9.09	11.00	50.00	6.00	27.27	3.00	13.64	<b>3.00</b>	<b>4.28</b>	<b>A</b>
<i>Regional / Local Transport performance</i>	2.00	9.09	13.00	59.09	0.00	0.00	7.00	31.82	0.00	0.00	<b>2.00</b>	<b>5.59</b>	<b>Good</b>
<b>Storage and Warehousing</b>	0.00	0.00	2.00	9.09	10.00	45.45	7.00	31.82	3.00	13.64	<b>3.00</b>	<b>4.04</b>	<b>A</b>
<i>Overall Performance of Logistics Management</i>	0.00	0.00	3.00	13.64	5.00	22.73	10.00	45.45	4.00	18.18	<b>4.00</b>	<b>3.65</b>	<b>V.G</b>
<b>Group</b>											<b>3.00</b>	<b>1.41</b>	<b>Very Good</b>

In addition, about 4.55% (1), 4.55% (1), 27.27% (6), 59.09% (13) and 4.55% (1) of the respondents tend to rate their organizations logistics performance in preparing and planning stage as poor, good, average, very good and excellent respectively. The mode shows they are very good in this stage. From this the researcher noticed that the organizations never neglected the *logistics assessment and preparing/planning* step prior to engaging in to logistics activities that have a key role for the success of logistics goals. This implies that even if they are good in logistics preparing and planning's, there would be a possibility for potential improvements considering the respondents answer.

We all know that procurement is a back bone for every organizations. When we see the procurement performance of the case organizations, the mode of the respondents indicates they are average as far as procurement concerned, the above table shows that about 9.09% (2), 50.00% (11), 27.27% (6) and 13.64% (3) tend to rate the effectiveness procurement as good, average, very

good and excellent respectively. This implies that their procurement practice is somehow not fully satisfactory and needs to have few improvements in some area.

It's clear that performance of regional/local transportation is relevant to transport relief aid to vulnerable societies, their capacity has to be also monitored regularly and needs to be considered as a contingency plan. Regarding the performance of regional/local transporters shown in the above table, about 9.09% (2), 59.09% (13) and 31.82% (7) of the respondents tend to rate poor, good and very good respectively. The mode shows the local transport performance is good, in other words it's not fully satisfactory. This indicates that performance of local transporters is an area needs to be evaluated regularly to see performance gaps for immediate improvements. This implies that market assessment needs to be conducted in order to engage potential transporters in a long term agreements which sustain the relief aid logistics performance. In addition logistics collaboration among different humanitarian organization is relevant in order to compile potential local transporters for future needs.

Obviously having sufficient storage and warehousing space is important for pre-positioning of relief items during pre-crisis time. With regard to the above table, about 9.09% (2), 45.45% (10), 31.82% (7) and 13.64% (3) of the respondents tend to rate the storage and warehousing performance as good, average, very good and excellent respectively. The mode shows the performance is average.

This shows that their warehouse performance is not bad but its capacity could be better enough to respond to any emergency requests. This implies that concerned manager's needs to consider a rub halls options which can be used as a mobile storages in any areas. Keeping sufficient rub halls on stock could help them to make their warehousing needs more flexible and effective.

When we see the overall logistic management performance as shown above, about 13.64% (3), 22.73% (5), 45.45% (10) and 18.18% (4) of the respondents tend to rate the logistics management performance as good, average, very good and excellent respectively. The mode shows it's very good therefore, this implies that logistics performance is effective enough. In other word the more logistics performance become very good, the more lives can be saved easily. However, considering the staff size of the unit, there will be an extra work load which will create unnecessary pressures on logistics employees.

**Table 2. We have enough qualified logistics employees at our disposal**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
<b>Valid</b>	<i>Strongly Disagree</i>	3.00	13.64	3.0909	Agree
	<i>Disagree</i>	3.00	13.64		
	<i>Neutral</i>	6.00	27.27		
	<i>Agree</i>	9.00	40.91		
	<i>Strongly Agree</i>	1.00	4.55		
<b>Total</b>		22.00	100.00	3.0909	

From the above table no. 2 most of the respondents that is about 40.91% (9) them tend to agreed that they have enough qualified logistics employees at their disposal whereas the rest 13.64% (3), 13.64% (3), 27.27% (6) and 4.55% (1) of respondent tend to rate strongly disagree, disagree, neutral and strongly agree respectively. The mode indicates most of the respondents agreed on the topic. This shows that the respondents seems clearly understood the role of qualified employees towards the organization objective however the staff compositions seems a mix of qualified and non-qualified employees and the size remain under a question mark considering the general characteristics of the respondents.

*These implies that top management needs to provide appropriate trainings and practical workshops on humanitarian logistics to all logistics personnel's in order to keep a capable, productive and outstanding employees in the area of logistics. In addition the staff size needs to be checked to avoid stress and unnecessary workloads. By doing this there will be a possibility for the management to hire more logistic employees to expedite the day to day emergency related requests.*

Table No. 3 below depicts that most of the respondents that is about 68.18% (15) of them agreed on the question whether logistics performance and effectiveness is well organized/structured or not and the rest 13.64% (3) and 18.18% (4) of the respondents however tend to disagree and remain neutral respectively.

**Table 3. The performance/ effectiveness of our logistics system is well organized and structured**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	Disagree	3.00	13.64	3.5454	Agree
	Neutral	4.00	18.18		
	Agree	15.00	68.18		
	Total	22.00	100.00		

Considering the mean (3.5454) and mode result the respondents overall answer tend to agree on the subject matter. This shows that this is an encouraging aspect for the organizations to keep up the current trend however there will be a possibility for re-structuring. Some areas may needs an improvements and the current effectiveness seems only coming due to existing qualified logistic employees. *This implies that the organizations needs to hire potential consultants and experts to evaluate their existing structures for possible improvements if any.*

**Table 4. We've compelling external factors hindering our logistics operations**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	2.00	9.09	3.7727	Neutral Agree
	<i>Neutral</i>	6.00	27.27		
	<i>Agree</i>	9.00	40.91		
	<i>Strongly Agree</i>	5.00	22.73		
	<b>Total</b>	22.00	100.00		

According to table no 4, above it's clear that most of the respondents that is 40.91% (9) of them tend to agree as far as the existence of compelling external factors that hindering their logistics operations. In other hand about 9.09% (2), 27.27% (6) and 22.73% (5) % of the respondents however tend to rate disagree, neutral and strongly agree respectively. The mean (3.7727) itself shows the respondents tend to agree on the subject matter.

This infers that logistics managers needs to categorize external factors as controllable and uncontrollable. *In doing so management will have the opportunity to see avoidable factors which is easy to improve and un-avoidable ones that can be minimized gradually.*

**Table 5. The role of logistics clusters and implementing partners are vital in emergency situations**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	3.00	13.64	3.8181	Agree
	<i>Neutral</i>	2.00	9.09		
	<i>Agree</i>	11.00	50.00		
	<i>Strongly Agree</i>	6.00	27.27		
	<b>Total</b>	13.00	100.00	3.8181	

Regarding the role of logistics clusters as shown on table no 5 above, most of the respondents about 50.0% (11) of them believed or tend to agree that the role of logistics clusters and implementing partners are vital in emergency situations whereas about 13.64% (3), 9.09% (2) and 27.27% (6) of them tend to disagree, neutral and strongly agree respectively. The mean (3.8181) shows the respondents agree on the subject matter. It's obvious that the collaboration among different UN logistics clusters is important specially in coordinating relief aid and specific components that needs to be served by one agency/clusters. *This implies that appropriate information sharing and regular meetings needs to be in place to combat any disastrous in collaborations.*

**Table 6. The challenges of our logistics practice is typically arises from natural/ manmade factors**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	9.00	40.91	2.9090	Disagree
	<i>Neutral</i>	6.00	27.27		
	<i>Agree</i>	7.00	31.82		
	<b>Total</b>	22.00	100.00	2.9090	

As table no 6 above illustrated most of the respondents about 40.91% (9) and 31.82% (7) tend to disagree and agree regarding the sources of the logistics challenges. Whereas about 27.27% (6) of the respondent tend to remain neutral on the subject matter. In other hand the mean (2.9090) in other hand shows the respondents are neutral on the subject matter.

It's obvious that the logistics challenges could be manmade for instance problem arise due to inappropriate logistics structure or incapable suppliers or it could be natural like rain, flood...etc damaging roads, bridge which can make the humanitarian logistics practice challenging.

**Table 7. Possible remedies needs to be taken in combating specific constraints in accessibility of roads/infrastructures.**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	5.00	22.73	3.3181	Neutral Agree
	<i>Neutral</i>	7.00	31.82		
	<i>Agree</i>	8.00	36.36		
	<i>Strongly Agree</i>	2.00	9.09		
	<b>Total</b>	22.00	100.00	3.3181	

The above table no 7 depicts that most of the respondents that is 36.6% (8) of them tend to agree concerning the need for a possible remedies in order to combat specific constraints in accessibility of roads/infrastructures. In addition about 22.73% (5), 31.82% (7), 9.09% (2) of the respondents tend to remain disagree, neutral and strongly agree on the subject matter. The mean (3.3181) however shows that the respondents tend to remain neutral on the subject matter. This depicts that the collaboration among all UN agencies is vital specially in exchanging information's in accessibility of roads constraints or infrastructure which will be starting point to arrange the possible remedies.

The mean (3.9545) shown in below table no 8, most of the respondents are strongly agree that they have a valuable cooperation's with vendors and get the products they ordered very fast. As the table depicts most of the respondents that is 50.0% (11) of them strongly agree and about 31.82% (7) of them agree on the subject matter.

**Table 8. We have a valuable cooperation with vendors and get the products very fast**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Strongly Disagree</i>	4.00	18.18	3.9545	Strongly Agree
	<i>Agree</i>	7.00	31.82		
	<i>Strongly Agree</i>	11.00	50.00		
	<b>Total</b>	22.00	100.00	3.9545	

This shows that their suppliers are capable and flexible enough to receive any order for immediate delivery. This infers that a valuable source of supply during emergency helps them to respond disastrous quickly. This implies that lives can be saved due to an immediate response to unexpected disasters whereby the organizations image become good and trust worthy on the eyes of donors, governments and societies. In addition the case humanitarian organizations needs to engage this vendors through long term agreement (LTA) in order to ensure the required materials can be sourced quickly at any given time.

**Table 9. We clearly know who to contact if we have a logistics problem**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Neutral</i>	3.00	13.64	4.3181	Agree Strongly Agree
	<i>Agree</i>	9.00	40.91		
	<i>Strongly Agree</i>	10.00	45.45		
	<b>Total</b>	22.00	100.00	4.3181	

As the above table no 9 shows most of the respondents that is 45.45% (10) and 40.91% (9) of them tend to strongly agree and agree respectively concerning the knowledge they have in case of a logistics problem. The rest or not and the rest of 13.64% (3) of them however tend to remain neutral on the given topic. The mean (4.3181) of this data shows that the respondents remain strongly agree.



This shows that the case humanitarian organizations has a valuable information sharing system that helps them to act quickly during disaster incident. *This also implies that they needs to strengthen this system and for sustainable use.*

**Table 10. The condition of the infrastructure in the country is very bad**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	2.00	9.09	3.9545	Agree Strongly Agree
	<i>Neutral</i>	5.00	22.73		
	<i>Agree</i>	7.00	31.82		
	<i>Strongly Agree</i>	8.00	36.36		
	<b>Total</b>	22.00	100.00		

The mean (3.9545) in the above table no 10 depicts that most of the respondents that is 36.36.2% (8) and 31.82% (7) of them strongly agree and agree respectively regarding the bad condition of the infrastructure in the country. The mode indicates all respondents are agree on the subject matter.

This shows that this is one of the challenge affecting the logistics effectiveness as it hinders the relief aid dispatches to required destinations. This infers that there should be a close coordination among logistics clusters and concerned UN agencies in Ethiopia in order to support the government financially to improve/build infrastructures that is convenient to smooth the relief dispatches. *The transport companies in contract also needs to be flexible enough in case of such problems. This implies that the condition of specific infrastructure needs to be taken in to consideration while engaging in relief activities.*

From the below table no 11 it's clear that most of the respondents that is 50.0% (11) of them strongly agree that governmental procedures are very strict in the country and it's the biggest challenge hindering the logistics performance of the case humanitarian organizations. The mean (4.3181) also shows the respondents strongly agree on the subject matter.

**Table 11. The governmental procedures are very strict**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Neutral</i>	4.00	18.18	4.3181	<b><i>Strongly Agree</i></b>
	<i>Agree</i>	7.00	31.82		
	<i>Strongly Agree</i>	11.00	50.00		
	<b>Total</b>	22.00	100.00	4.3181	

For instance most food related aid are imported from abroad and shipped to Ethiopia via Djibouti port, The researcher can realize that the governments procedure related to clearing cargo in Djibouti port is challenging and time taking while hunger can't compromise this challenge. *This implies that government needs to have a quick exceptional mechanism on relief aid cargos clearance process, especially during drought time as it has a great impact on the well-being of affected society.*

**Table 12. The safety in the country (e.g. looting) is very hazardous**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Strongly Disagree</i>	5.00	22.73	2.4090	Disagree
	<i>Disagree</i>	9.00	40.91		
	<i>Neutral</i>	2.00	9.09		
	<i>Agree</i>	6.00	27.27		
	<b>Total</b>	22.00	100.00	2.4090	

Obviously, Ethiopia is one of the peaceful country in Africa with good peace and stability. The mean (2.4090) from the above table no 12 shows that most of respondents are tend to disagree concerning the safety issue in the country. It's clear that most of the respondents that is 40.91% (9) of them disagree and other 22.73% (5), 9.09% (2) and 27.27% (6) of them tend to strongly disagree, remain neutral and agree on the subject matter.

The mode in the other hand also shows that the respondents disagree on the topic. *This depicts that the safety in the country is not a logistics challenge or a threat for the case humanitarian organization.*

**Table 13. The logistics information we receive from logistics clusters is not enough**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Disagree</i>	11.00	50.00	2.7727	Disagree
	<i>Neutral</i>	5.00	22.73		
	<i>Agree</i>	6.00	27.27		
	<b>Total</b>	22.00	100.00	2.7727	

The researcher realized that the logistics cluster group led by WFP based in Addis Ababa is doing a great job in finding solutions for humanitarian logistics, they actively shares access constraint and possible options for all logistics hubs. As the mean (2.7727) depicts in the above table no 13, most of the respondents tend to remain neutral on the subject matter.

The mode also shows the same result on this topic. Most of the respondents about 50.% (11) of them believed that the information they got from logistic clusters are good enough but other 22.73% (5) of them remain neutral on the question provided. The remaining 27.27% (6) however agreed on the subject matter. This shows that there are area the needs to be improved by logistics clusters as the existing information sharing aspect is not fully satisfactory. This implies that the logistics clusters needs to keep up the good works and also needs to fill the possible information gaps.

The below table no 14 shows that most of the respondents about 40.91% (9) and 45.45% (10) of respondents tend to agree and strongly agree respectively that the quality of trucks provided by transport companies are poor and below standard. About 13.64.5% (3) of the respondents however tend to remain neutral on the given statements.

**Table 14. The quality of the trucks provided by transport companies are poor/below standard**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
<b>Valid</b>	<i>Neutral</i>	3.00	13.64	4.3181	Agree Strongly Agree
	<i>Agree</i>	9.00	40.91		
	<i>Strongly Agree</i>	10.00	45.45		
	<b>Total</b>	22.00	100.00	4.3181	

The mean (4.3181) in other hand shows the respondents are strongly agree on the subject matter. This somehow shows that the trucks provided by a transport companies are in a mix of good and poor conditions. *This is implies that case humanitarian organizations needs to make sure that the transport company taking the contract must be a Level 1 freight company that basically got that rank due to a good performance of a truck.*

The above table no 14 shows that most of the respondents about 40.91% (9) and 45.45% (10) of respondents tend to agree and strongly agree respectively that the quality of trucks provided by transport companies are poor and below standard. About 13.64.5% (3) of the respondents however tend to remain neutral on the given statements. The mean (4.3181) in other hand shows the respondents are strongly agree on the subject matter. This somehow shows that the trucks provided by a transport companies are in a mix of good and poor conditions. This is implies that case humanitarian organizations needs to make sure that the transport company taking the contract must be a Level 1 freight company that basically got that rank due to a good performance of a truck.

**Table 15. The information about what the beneficiaries need is not complete**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
<b>Valid</b>	<i>Strongly Disagree</i>	11.00	50.00	1.6818	Strongly Disagree
	<i>Disagree</i>	7.00	31.82		
	<i>Neutral</i>	4.00	18.18		
	<b>Total</b>	22.00	100.00	1.6818	

From the above table no 15 most of the respondents that is 50.0% (11) of them strongly disagreed on the statement saying information about what the beneficiaries need is not complete. Other 31.82% (7) and 18.18% (4) of the respondents also disagreed and tend to remain neutral on the given statements. The mean (1.6818) also shows the respondents strongly disagree on the subject matter. This shows that the needs of the vulnerable groups are clearly known at the time of pre-response or logistics need assessments. *This implies that there is no room for wastage of resources due to unclear or complex needs of the beneficiaries.*

The below table no 16 depicts that most of the respondents that is 40.91% (9) and 31.82% (7) of them tend to remain neutral and disagree respectively regarding the amount of budget allocation aspect for logistics task. However the rest 9.09% (2) and 18.18% (4) of them tend to strongly disagree and agree on the given statement. The mean (2.6818) depicts that shows the respondents tend to remain neutral on the statement.

**Table 16. The budget for our logistics tasks is too insufficient**

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
<b>Valid</b>	<i>Strongly Disagree</i>	2	9.09	2.6818	Disagree Neutral
	<i>Disagree</i>	7	31.82		
	<i>Neutral</i>	9	40.91		
	<i>Agree</i>	4	18.18		
	<b>Total</b>	22	100		

It's known that shortage of funds will hinder the needed of logistical arrangements or logistics employees end up by sourcing inferior quality products with poor transportation services/trucks which will become against the organizations main interest. *Therefore appropriate budgets for relevant logistical arrangements needs to be in place as needed.*

As the blow table no 17 presents, both mean (4.3181) and most of the respondents that is 45.45% (10) of them strongly agreed on the challenges they face in the area of scarcity of warehouse space and lack of proper information management system.

**Table 17.** *We are facing challenges in scarcity of warehouse space and information management*

Likerts 5 type scale		Frequency	Percent %	Mean	Mode
Valid	<i>Neutral</i>	3.00	13.64	4.3181	Agree Strongly Agree
	<i>Agree</i>	9.00	40.91		
	<i>Strongly Agree</i>	10.00	45.45		
	<b>Total</b>	13.00	100.00	4.3181	

This shows that scarcity of warehouse space will affect the possibility of stocking relief aid for prepositioning purpose as a back up to emergency needs and lack of relevant information management systems will also affect the process of distributing relief aid at the right time, at the right place and to the right people. Therefore, the top management needs to review their warehouse capacity and information management system in order to act on improvement areas.

#### **4.3. Summary of Interview questions**

Six open ended questions were provided to dedicate logistics and warehouse managers in relation to the subject under study. Their responses has been consolidated, summarized and presented here in the research report. The first open ended question delivered to the respondents, requested them to explain the importance of inventory management to logistics department. They clarified that proper inventory management is vital to the department by mentioning its contribution in order to strengthen the internal controlling system, it will help also the organization to have updated relief stock balance which could expedite the quick deliveries during emergencies. Further they pointed out few more points related to its importance like it has a potential to safe guard the organizations property against theft, misuse and fraudulent acts.

The second and third question gave the chance for the respondents to forward the logistics practice and challenges. The pointed out that they are normally handling a standard humanitarian logistics practice that starts with procuring of relief aid/truck rental, warehousing, asset/fleet management and distributions. As far as the challenge concerned, they pointed out that currently they have a great challenge in accessibility of infrastructures in remote disaster areas, shortage of potential

transport companies, and bureaucratic process in aid cargo custom clearance, unavailability of common warehouse hub in remote areas, small staff size...etc

Concerning the fourth open ended question that designed to know the main contribution of implementing partners in relief aid activities, the respondents tend to mention that implementing partners has a great contribution in expediting and smoothing the relief aid process, for instance ERCS is playing a vital role during relief aid distribution by mobilizing the communities, arranging the labors, organizing the volunteers...etc. Frequent meetings with implementing partners prior to aid dispatches also plays a great role in achieving the relief objective.

For the last questions concerning the reason for challenges in accessibility of infrastructures in remote areas, the respondents tend to mention that infrastructures in remote aid areas are not properly constructed (it's a rough road) therefore during rainy season accessing these rough roads are a challenging and it affects the relief aid distribution process.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5. Introduction

As the key finding and their implication that have been discussed in chapter four, summary of the major findings of the senior essay is presented as follows, the corresponding conclusion remark and recommendation also discussed in subsequent sections.

#### 5.1. Summary of Major Finding

For the questions that designed to know the case organizations logistics performance through a standard six indicators, the finding obtained was presented as follows. The organization very good and never neglected the logistics assessment and preparing/planning step prior to engaging in to logistics activities. These are a relevant steps that contribute for the success of logistics goals.

The finding for procurement performance however depicts that their procurement practice is somehow not fully satisfactory and needs to have few improvements in some area. In other hand, it's clear that performance of regional/local transportation is relevant to transport relief aid to vulnerable societies. However their capacity has to be also monitored regularly and needs to be considered as a contingency plan. The finding shows that performance of local transporters is an area is not satisfactory and it needs to be evaluated regularly to see performance gaps for immediate improvements.

As far as the warehouse performance concerned, the finding shows that it is not bad but its capacity could be better enough to respond to any emergency requests. This implies that concerned manager's needs to consider a rub halls options which can be used as a mobile storages in any areas. Keeping sufficient rub halls on stock could help them to make their warehousing needs more flexible and effective. When we see the overall logistic management performance it's very good, in other word the more logistics performance become very good, the more lives can be saved easily.

As far as the role of qualified logistics employee concerned, the finding shows that it seems the respondents clearly understood the role of qualified employees towards the organizations objective however the staff compositions seems a mix of qualified and non-qualified employees



and the size remain under a question mark considering the general characteristics of the respondents. Regarding the performance of logistics system, the finding shows the respondents are agree on the topic and it is an encouraging aspect for the organizations to keep up the current trend however there will be a possibility for re-structuring. Some areas may needs an improvements and the current effectiveness seems only coming due to existing qualified logistic employees. As far as the existence of compelling external factors that hindering their logistics operations concerned, the finding shows that respondents are agree on the subject matter which infers that logistics managers needs to categorize external factors as controllable and uncontrollable.

Regarding the role of logistics clusters aspect concerned, the finding implies that the collaboration among different UN logistics clusters is must specially in coordinating relief aid distribution planning and specific components that needs to be served by one agency/clusters. Regarding the sources for logistics challenges, most of the respondents tend to remain neutral on subject matter that infers the logistics challenges could be manmade for instance problem arise due to inappropriate logistics structure or incapable suppliers or it could be natural like rain, flood...etc damaging roads, bridge which can make the humanitarian logistics practice challenging. Concerning the need for a possible remedies in order to combat specific constraints in accessibility of roads/infrastructures the finding depicts that the collaboration among all UN agencies is vital specially in exchanging information's in accessibility of roads constraints or infrastructure which will be starting point to arrange the possible remedies. Regarding the knowledge of logisticians in case of logistics problems, the finding shows that the case humanitarian organizations has a valuable information sharing system that helps them to act quickly during disaster incident but area of improvements seen based on respondents answer.

As far as the condition of infrastructure concerned, the finding shows that this is one of the challenge affecting the logistics effectiveness as it hinders the relief aid dispatches to required destinations. This infers that there should be a close coordination among logistics clusters and concerned UN agencies in Ethiopia in order to support the government financially to improve/build infrastructures that is convenient to smooth the relief dispatches.

With regard to the strictness of governmental procedures in the country related to relief aid cargo clearance and the finding shows that it's the biggest challenge hindering the logistics performance of the case humanitarian organizations. For instance most food related aid are imported from abroad and shipped to Ethiopia via Djibouti port, The researcher can realize that the governments procedure related to clearing cargo in Djibouti port is challenging and time taking while hunger can't compromise this challenge. With regard to safety in the country the finding depicts that Ethiopia is one of the peaceful country in Africa with good peace and stability therefore the safety in the country is not a logistics challenge or a threat for the case humanitarian organization.

Regarding the information sharing aspect from logistics clusters, the finding shows that there are an area that needs to be improved by logistics clusters as the existing information sharing aspect is not fully satisfactory. This implies that the logistics clusters needs to keep up the good works and also needs to fill the possible information gaps. In addition the researcher found that the trucks provided by a transport companies are in a mix of good and poor conditions.

Lastly with regard to information about beneficiaries need, budget and warehousing space concerned, the findings shows that the needs of the vulnerable groups are clearly known at the time of pre-response or logistics need assessments. This implies that there is no room for wastage of resources due to unclear or complex needs of the beneficiaries. In addition, It's known that shortage of funds will hinder the needed of logistical arrangements or logistics employees end up by sourcing inferior quality products with poor transportation services/trucks which will become against the organizations main interest.

Furthermore, scarcity of warehouse space will affect the possibility of stocking relief aid for prepositioning purpose as a back up to emergency needs and lack of relevant information management systems will also affect the process of distributing relief aid at the right time, at the right place and to the right people.

## **5.2. Conclusion**

It's obvious that both IOM and WFP are humanitarian organizations almost having same logistics practice and facing common challenges considering the outcome that generated from logistics performance indicators. Both IOM and WFP perfectly passed the logistics performance indicator related questions.

The indicators in each stage have a significant impact on once logistics performance and both organizations needs to be on track as long as the six indicator shows a positive outcome. Both organizations also never missed the main logistics management steps which has a key role for the success of their logistics goals.

It's known that Ethiopia is one of the fast developing country in African continent, but construction of roads, utility and infrastructures needs to be improved continually. The local transporters is an area also needs to be evaluated regularly, concerned manager's also needs to stick on their existing rub halls which can be used as a mobile storages in any areas. The logistics performance is almost good enough and meeting its objective in both organizations. The respondents were clearly understood the role of qualified employees towards the organization objective. The collaboration among all UN agencies also vital specially in exchanging information's in accessibility of roads/infrastructure that will be starting point to arrange the possible remedies.

In other hands, there should be a close coordination among logistics clusters and UN agencies especially in relief aid distributions. The needed logistical arrangements will not be provided due to shortage of budget or logistics employees end up by sourcing inferior quality products with poor transportation services/trucks which will become against the organizations main interest. In addition Scarcity of warehouse space will affect the possibility of stocking relief aid for prepositioning purpose and lack of relevant information management systems will also affect the process of aid distribution.

### **5.3. Recommendations**

From the data analysis discussed in chapter four, procurement practice is somehow not fully satisfactory and needs to have few improvements in some area.

Therefore the researcher recommends that top management needs to regularly review their procurement policy, procedures and guidelines to cope with fluctuating global trends. Regarding the local transport performance it's recommended that logistics collaboration among different humanitarian organization is relevant in order to compile potential local transporters for future needs. humanitarian organizations also needs to engage qualified vendors through a long term agreement in order to ensure the required transport can be sourced quickly at any given time.

As far as storage and warehousing performance concerned, the researcher recommends that that concerned manager's needs to consider a rub halls options which can be used as a mobile storages in any areas. Keeping sufficient rub halls on stock could help them to make their warehousing needs more flexible and effective. Scarcity of warehouse space will affect the possibility of stocking relief aid for prepositioning purpose therefore the management needs to ensure that sufficient warehouse spaces are always in place.

In addition, the top management needs to review their warehouse capacity and information management system in order to act on improvement areas. Regarding workload and staff size aspect the management needs to evaluate their logistics staff size to avoid stress and unnecessary workloads. Therefore the management will have a chance to hire more employees to expedite the day to day emergency related requests.

The management also needs to avoid the compelling external logistics challenges, to do so the managers needs to categorize external factors as controllable and un-controllable. The external logistics challenges could be manmade, for instance problem arise due to inappropriate logistics structure or incapable suppliers which is controllable or it could be natural like heavy rain, flood...etc which is uncontrollable factor damaging roads, bridges that makes humanitarian logistics practice challenging. In doing so management will have the opportunity to see avoidable factors which is easy to improve and un-avoidable ones to future considerations while designing a contingency plan.

The researcher also recommends that the management needs to keep up on its successful logistics system or activities whereby lives can be saved as it facilitates an immediate response for the disasters, by doing this the organizations image become well and trust worthy on the eyes of donors, governments and societies. As far as a cargo related bureaucracy concerned the researcher realized that the government's procedure related to clearing cargo in Djibouti port is challenging and time taking while hunger can't compromise this scenario. Therefore the government needs to have a quick exceptional mechanism on relief aid cargos clearance process, especially during drought time as it has a great impact on the well-being of affected society.

The organizations also needs to make sure that the transport company they engaged with should be a Level 1 Freight Company that basically got that rank due to a good performance of a truck, as engaging with bad truck will delay the delivery and become specific challenges for effectiveness of a logistics performance. In this regards, market assessment is needed as well to get a potential transporters in Ethiopia, in addition having a long term agreements (LTA'S) with potential transport companies will sustain the logistics performance. In other hands appropriate budgets also needs to be allocated in both organizations to expedite relevant logistical arrangements on time.

## REFERENCES

- Alan, E. B. (2009). *Global supply chain management and international logistics*. (1st ed.). New York: Routledge.
- Alan, H. and Remko, V.H. (2008). *Logistics management and strategy; competing through the supply chain*. (3rd ed.). Great Britain: Pearson Education Limited.
- Alan, R. and Steve, W. (2007). *International logistics and supply chain outsourcing; from local to global*. Great Britain: MPG Books Ltd, Bodmin, Cornwall.
- Ahmed, T. (2016). *Humanitarian Logistics and Humanitarian Supply chain*. Education presentation. Unpublished.
- Beamon B.M. (2005). *Environmental and sustainability ethics in supply chain management*. *Ethics*, 11(2): 221–234
- Chandra, V. (2005). *Supply chain management issue*. <http://www.coolavenues.com/know/ops/Vamsee>.
- Charl, V. M. (2010). 'Humanitarian Logistics', *Development in practice*, 20 (2): 305-307.
- Donald, W. (2012). *Global Logistics; New directions in supply chain management*. (6th ed.). India: Replika Press Pvt Ltd.
- Edward, F. (2002). *Supply chain strategy; The Logistics of Supply Chain Management*. United States of America: McGraw-Hill.
- Edmond J. K. (1991). *Revolutionary Ethiopia: From Empire to People's Republic*. Indiana: Bloomington, University Press, 1991, p, 79
- Gyöngyi, K. and Karen M. S. (2012). *Relief Supply Chain Management for Disasters; Humanitarian Aid and Emergency Logistics*. United States of America: IGI Global.
- Van Wassenhove L.N. (2006). 'Humanitarian Aid Logistics; Supply Chain Management in High Gear', *the Journal of the Operational Research Society*, 46 (2): 35-54.
- Martin, C. (2011). *Logistics and supply chain management*. (4<sup>th</sup> ed.). Great Britain: Henry Ling Ltd, Dorchester, Dorset.

- Martin, K. (2013). *Logistics Network Design in Africa; Integrating Aid Flows and National Self Supply*. Germany: Haupt Berne.
- Michael, Q. (2006). *Purchasing and Supply Chain Management; Strategies and Realities*. United States of America: IRM Press (an imprint of Idea Group Inc.).
- Reza, Z., Nasrin, F., and Hoda , D. (2009). *Supply Chain and Logistics in National International and Governmental Environment*. German: Springer-Verlag Berlin Heidelberg.
- Rolando, T. and Luk, V. W. (2009). *Humanitarian Logistics*. Great Britain: Palgrave Macmillan.
- Yemisi, A. (2007). 'Developing a Theoretical Framework for Logistics Outsourcing', *Transportation Journal*, 46 (2): 35-54.

[www.iom.int/humanitarian-emergencies](http://www.iom.int/humanitarian-emergencies)

[www.wfp.org/about](http://www.wfp.org/about)

## ANNEX I

### SURVERY QUESTIONNAIRE

#### **A Questionnaire to be filled by staffs in Logistics and supply unit of IOM and WFP**

My name is Fuad ISMAEL, Master student of Masters in General Business Admiration in St. Mary University.

The purpose of this survey is to gathers data, information's and opinions on the practice and challenges of humanitarian logistics, finally to come up with recommendation so as to improve the logistics practice. In fact, the primary subjective of these survey is subject to support a senior thesis presented to the fulfillment of Master's degree in General Business Administration. Should you have any enquiry please feel free to contact the researcher at:

Email: ifuad@iom.int

Phone number: +251 924 106 380

**Thank you** for taking your time and answering the questions of this survey. Only with your honest opinion I'll be able to improve the humanitarian logistics challenges within IOM and WFP Ethiopia. With a well-functioning logistics system you be able to do more with less. You also benefit from an improved work environment as trouble shooting occur less often. Of course, your answers to this survey be treated confidentially and anonymously.

#### **General guide lines**

Your specific answers could be completely anonymous, but your view in combination with those of others, is extremely important. Hence you are kindly requested to mark on the appropriate answer. Feel free in responding to the survey questionnaire.

#### **Instructions**

- No need of writing your names.
- Please **Mark** “✓” in front of the boxes of responses.

**Thank you in advance**



**PART 1**

**Personal demography**

1. Educational background

- A. Certificate                       B. Diploma   
 C. Experience                       D. B.A degree

2. Age

- A. 20-30                      B.                       31-39                        
 C. 40-49                      D.                       Above 50

3. Work experience

- A. Below 5 years                       C. C. Between 10- 15                        
 B. Between 5 – 10 years                       Above 15 years

**PART 2**

1. Looking at the various humanitarian logistics functions, how would you evaluate your organizations logistics performance?

Please use “✓” to indicate your answer in the below table;

<b>1. Poor</b>	<b>2. Good</b>	<b>3. Average</b>	<b>4. Very Good</b>	<b>5. Excellent</b>
----------------	----------------	-------------------	---------------------	---------------------

<b>Logistics performance indicators</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Assessment of (logistics) requirements					

Preparing and Planning					
Procurement					
Regional / Local Transport					
Storage and Warehousing					
Overall Performance of Logistics Management					

2. Please indicate to which extent the following statements describe the current situation in your esteemed organization?

Please use “✓” to respond each questions.

**1. Strongly disagree    2. Disagree    3. Neutral    4. Agree    5. Strongly agree**

Sr. No.	Statements	1	2	3	4	5
1.	We have enough qualified logistics employees at our disposal.					
2.	The performance and effectiveness of our logistics system is well organized and structured.					
3.	We've compelling external factors hindering our logistics operations.					
4.	The role of logistics clusters and implementing partners are vital in emergency situations					
5.	The challenges of our logistics practice is typically arises from natural and manmade factors					

6.	Possible remedies needs to be taken in combating specific constraints in accessibility of roads/infrastructures.					
7.	We have a valuable cooperation with our vendors and get the products we ordered very fast.					
8.	We clearly know who to contact if we have a logistics problem.					

**2.1.** If needed, please explain your answer to question **eleven**.

**3.** Please use “✓” to indicate which of the following issues hamper your **logistics** the most and evaluate them from (**5 - i strongly agree**)to (**1 - i strongly disagree**).

<b>1. Strongly disagree</b>	<b>2. Disagree</b>	<b>3. Neutral</b>	<b>4. Agree</b>	<b>5. Strongly agree</b>
-----------------------------	--------------------	-------------------	-----------------	--------------------------

S.N	Challenges of logistics	1	2	3	4	5
1	The condition of the infrastructure in the country is very bad.					
2	The governmental procedures are very strict.					
3	The safety in the country (e.g. looting) is very hazardous.					

4	The logistics information we receive from logistics clusters is not enough.					
5	The quality of the trucks provided by transport companies are poor and below standard.					
6	The information about what the beneficiaries need is not complete					
7	The budget for our logistics tasks is too insufficient.					
8	We are facing challenges in scarcity of, warehouse space and information management?					

**4.** How can you explain the practice of logistics management in your esteemed organization?  
What makes it successful?

**5.** Are there any additional challenges not addressed in this survey?

## ANNEX II

### STRUCTURED INTERVIEW QUESTIONS

**Interview Questions to be answered by procurement officers, warehouse managers and finance officers of WFP and IOM.**

My name is Fuad ISMAEL, Master student of Masters in General Business Administration in St. Mary University.

The purpose of this interview questions is to gather data, information's and opinions on the practice and challenges of humanitarian logistics, finally to come up with recommendation so as to improve the logistics practice. In fact, the primary objective of these survey is subject to support a senior thesis presented to the fulfillment of Master's degree in General Business Administration.

Should you have any enquiry please feel free to contact the researcher at:

Email: ifuad@iom.int

Phone number: +251 924 106 380

**Thank you in advance.**

1. How do you perceive the importance of inventory management for your department?
2. What are the organizations main logistics practice?
3. What are the main challenges in managing humanitarian logistics with recommended solutions?
4. To what extent is the expected performance level of logistics realized?
5. What is/are the main contributions of implementing partners in relief aid activities?
6. To what extent is the logistics system effective?
7. What are the reasons bottlenecks/constraints/challenges in accessibility of roads/infrastructures?

## ENDORSEMENT

This thesis has been submitted to St. Mary's university, School of Graduate Studies for examination with my approval as a university advisor.

**Advisor: Dr. Solomon Markos**

St. Mary's university, Addis Ababa

---

**Signature**

April, 2017

---