# THE CONTRIBUTION OF NON-GOVERNMENTAL ORGANIZATIONS IN RESPONDING TO CHOLERA EPIDEMICS IN ZANZIBAR: EXPERIENCE FROM MICHEWENI DISTRICT, PEMBA

## MOH'D ABDALLA RASHID

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF HUMANITARIAN
ACTION, COOPERATION AND DEVELOPMENT (MHACD),
DEPARTMENT OF POLITICAL SCIENCE, PUBLIC ADMINISTRATION,
HISTORY AND PHILOSOPHY
THE OPEN UNIVERSITY OF TANZANIA

# CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled: "The Contribution of Non-Governmental Organizations in Responding to Cholera Epidemics in Zanzibar: Experience from Micheweni District, Pemba" in partial fulfillment of the requirements for degree of Master of Humanitarian, Action Cooperation and Development (MHACD) of the Open University of Tanzania.

.....

Dr. Miraji Kitigwa

(Supervisor)

.....

Date

# **COPYRIGHT**

No part of this dissertation may be reproduced, stored in any retrieval system, or submitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the author or the Open University of Tanzania.

# **DECLARATION**

I, Moh'd Abdalla Rashid, declare that, the work presented in this dissertation is original. It has never been presented to any other University or Institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Master of Humanitarian, Action Cooperation and Development (MHACD).

Signature

Date

# **DEDICATION**

This work is dedicated to my family, my beloved mother, Mrs. Mkitu Moh'd Rashid and my father Mr. Abdalla Rashid as well as my wife, Bimkubwa Zaid Othman, and my three sons, Mahir, Mukrim and Mahsen. Let them enjoy while reading this document.

#### ACKNOWLEDGEMENT

Firstly, I would like to thank the Almighty Allah for making this journey of my studies possible, the journey that involved many ups and downs, however, with Allah's grace and mercy I managed to achieve this longtime dream of mine, *Alhamdullilah*..

Secondly, I would like to express my sincere gratitude to my supervisor Dr. Miraji Kitigwa for his guidance and encouragement throughout the course of my studies, alongside with the huge role played by my beloved former supervisor, the Late Prof Emmanuel Kigadye for his support and tireless encouragement during proposal preparation.

Thirdly, I would like to tremendously acknowledge the support of Mr. Addi Juma Faki, a PhD student at the Open University of Tanzania who guided me during data analysis process as well as drafting the final report.

In addition, many thanks should also go to my all-fellow students for their mutual interaction, constructive criticisms and support.

Moreover, my thanks should go to my family members specifically my wife and my sons for their moral, time and materials support while undertaking this research project. Finally, yet importantly, my thanks should go to my employer (ENABEL, Belgium Development Agency) for allowing me to have undertaken this study and their great financial support, which make my study possible.

In a few words, let me say thanks to all.

#### **ABSTRACT**

The 2015–2016 cholera epidemic in Micheweni District, Pemba led to an essential partnership between NGOs and the government, which has subsequently enabled the prevention of massive outbreaks in Zanzibar. In this study, the social and economic functions of NGOs and the difficulties encountered during the response were studied. Guiding collaborative governance theory, the study used a descriptive study design using the mixed-methods approach. Data were collected using questionnaires from 121 NGO recipients and 13 key informants through interview. Quantitative data were analyzed using SPSS v25 for descriptive statistics, and qualitative data were analyzed thematically and presented as quotations. The findings showed that healthcare was the most common social support (98.3%), and economic education headed on economic support (90.1%). Support varied by type by the degree of support. The NGOs also faced several challenges such as constraints in resources, coordination, communication, cultural norms, and logistic limitations. The study summarizes that although the NGOs were at the center of action in response to the outbreak, their support was below community needs. It recommends increased resource allocation, efficient coordination, culturally sensitive communication, and improved logistics.

Keywords: Cholera outbreak, Social Support, Economic Support, Micheweni Pemba.

# TABLE OF CONTENTS

CERT	IFICATION	ii
COPY	RIGHT	iii
DECL	ARATION	iv
DEDIC	CATION	v
ACKN	OWLEDGEMENT	vi
ABSTI	RACT	vii
LIST (	OF TABLES	xiii
LIST (	OF FIGURES	xiv
LIST (	OF ABBREVIATION AND ACRONYMS	XV
CHAP	TER ONE	1
INTRO	DDUCTION	1
1.1	Introduction	1
1.2	Background Information	2
1.3	Statement of the Research Problem	4
1.4	Research Objectives	5
1.4.1	General Objective	5
1.4.2	Specific Objectives	5
1.5	Research Questions	5
1.6	Significance of the Study	6
1.7	Organization of the Dissertation	7
CHAP	TER TWO	8
LITER	RATURE REVIEW	8
2.1	Introduction	8

2.2	Definition of Key Concepts	9
2.2.1	Non-Government Organization (NGOs)	9
2.2.2	Epidemic	9
2.2.3	Cholera	. 10
2.2.4	Recovery	. 10
2.2.5	Resilience	. 10
2.3	Theoretical Review	. 10
2.3.1	Collaborative Governance Theory	. 10
2.4	Empirical Literature Review	. 13
2.4.1	Contribution of NGOs to Economic Support	. 13
2.4.2	Contribution of NGOs to Social Support	. 15
2.4.3	Challenges Facing NGOs During Supporting Cholera Response	. 18
2.5	Research Gap	. 21
2.6	Conceptual Frame Work	. 22
2.6.1	Relationship of Variables	. 24
CHAPT	ER THREE	. 26
RESEAR	RCH METHODOLOGY	26
3.1	Introduction	. 26
3.2	Research Philosophy	. 26
3.3	Research Design	. 27
3.4	Research Approach	. 27
3.5	Area of the Study	. 28
3.6	Population of the Study	. 28
3.7	Sampling Procedures and Sample Size	. 29

3.7.1	Sampling Procedures	29
3.7.2	Sample Size	30
3.8	Data Collection Methods	31
3.8.2	Key Informant Interviews (KII)	32
3.9	Data Collection Instruments	32
3.9.1	Questionnaire	32
3.9.2	Key Informants Interviews	33
3.10	Reliability and Validity of Data	34
3.10.1	Reliability	34
3.10.2	Validity	34
3.11	Data Analysis	35
3.12	Ethical Consideration	35
СНАРТ	TER FOUR	36
	TER FOURANALYSIS, INTERPRETATION AND DISCUSSION	
		36
DATA A	ANALYSIS, INTERPRETATION AND DISCUSSION	<b>36</b>
<b>DATA</b> 4.1	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction	36 36
<b>DATA</b> 4.1 4.2	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate	36 36 36
<b>DATA</b> 4.1 4.2 4.3	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate  Demographic Profile of Respondents	36 36 36 36
<b>DATA</b> 4.1 4.2 4.3 4.3.1	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate  Demographic Profile of Respondents  Age Profile	
<b>DATA</b> 4.1 4.2 4.3 4.3.1 4.3.2	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate  Demographic Profile of Respondents  Age Profile  Gender Profile	
<b>DATA</b> 4.1 4.2 4.3 4.3.1 4.3.2 4.3.3	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate  Demographic Profile of Respondents  Age Profile  Gender Profile  Occupation Profile	
<b>DATA</b> 4.1 4.2 4.3 4.3.1 4.3.2 4.3.3 4.3.4	ANALYSIS, INTERPRETATION AND DISCUSSION  Introduction  Response Rate  Demographic Profile of Respondents  Age Profile  Gender Profile  Occupation Profile  Residence	

4.4.1	Types of Social Supports Provided	41
4.4.2	Source of Information About NGO Supports	42
4.4.3	List of NGOs Delivered Social Supports	44
4.4.4	Type of Social Supports per NGOs	45
4.4.5	Quality of Support from NGOs	46
4.4.6	Relevance of Supports Provided	50
4.4.7	Scant Social Supports	52
4.5	Economic Support During Cholera Outbreak	53
4.5.1	List of Economic Supports Provided	53
4.5.2	List of NGOs Provided Economic Supports	54
4.5.3	Types of Economic Supports Provided by NGOs	55
4.5.4	Quality of Economic Supports provided by NGOs	56
4.5.5	Economic Supports and Impacts	59
4.6	Challenges Experienced in Supporting Cholera Victims	61
4.6.1	Challenges Faced by Beneficiaries	61
4.6.1.1	Health and Sanitation Barriers	61
4.6.1.2	Resource Distribution Challenges	62
4.6.1.3	Economic Dependence	64
4.6.2	Challenges Experienced by NGOs	65
СНАРТ	'ER FIVE	69
SUMMA	ARY OF FINDINGS AND DISCUSSION OF FINDINGS	69
5.1	Introduction	69
5.2	Summary of Findings	69
5.2.1	Contribution of NGOs to Social Support	69

APPENDICES		. 84
REFERENCES		.77
5.6	Areas for Further Study:	. 76
5.5	Limitations of the Study	. 75
5.4	Recommendations	. 74
5.3	Conclusion	. 72
5.2.3	Challenges Experienced During Supply Of Supports	. 71
5.2.2	Contribution of NGOs to Economic Support	. 70

# LIST OF TABLES

Table 3.1: Study Population	. 29
Table 3.2: Study Sample	. 31
Table 3.3: Key Informants	. 32
Table 3.4: Reliability Test	. 34
Table 4. 1: Demographic Profile of Respondents	. 40
Table 4.2: Quality of NGOs Social Supports	. 49
Table 4.3: Most Helpful Support	. 51
Table 4.4: Quality of Economic Supports	. 58

# LIST OF FIGURES

Figure 2.1: Conceptual Framework	25
Figure 4. 1: Types of Social Supports Provided	42
Figure 4.2: Source of Information on NGO Supports	43
Figure 4.3: List of NGOs Provided Social Supports	44
Figure 4.4: Types of Interventions Provided by NGOs	45
Figure 4.5: Lacking Social Supports	53
Figure 4.6: List of NGOs Provided Economic Supports	55
Figure 4.7: List of Economic Supports Provided by NGOs	55
Figure 4.8: Extent of Economic Support Meeting Demands	59
Figure 4.9: Health and Sanitation Barriers	62
Figure 4.10: Resource Distribution Challenges	63
Figure 4. 11: Economic Dependence	65

#### LIST OF ABBREVIATION AND ACRONYMS

CHF Community Health Fund

DHMT District Health Management Team

HIV/AIDs Human Immunodeficiency Virus/Acquired Immunodeficiency

Syndrome

INGOS International Non- governmental Organization

KII Key Informant Interview

NGO Non-Governmental Organizations

NHIF National Heath Insurance Fund

OCGS Office of Chief Government Statistician

PHAST Participatory Hygiene and Sanitation Transformation

RGoZ Revolutionary Government of Zanzibar

SDGs Sustainable Development Goals

URT United Republic of Tanzania

WASH Water, Sanitation, and Hygiene

WHO World Health Organization

ZADEP Zanzibar Development Plan

ZCCEP Zanzibar Comprehensive Cholera Elimination Plan

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Introduction

Cholera is an acute diarrheal disease that can kill patients within hours if treatment is not received. It is spread by eating, drinking, or eating fruits that are contaminated by the bacteria Vibrio cholerae (WHO, 2023; Ngin go et al., 2023). The majority of cholera outbreaks occur in impoverished communities because of a lack of access to safe water, food, and basic sanitation (Elnaiem et al., 2023). Because of the disease's contagious nature and resource-sharing behaviors, such as using common water sources, cholera outbreaks frequently affect a large number of people in society (Dureab et al., 2019). Effective tackling of Cholera outbreaks requires involvement of multiple stakeholders as it involves addressing health, water, sanitation, education and infrastructures, which cannot be effectively managed by a single entity (WHO, 2017)

Non-Governmental Organizations (NGOs) are essential to society because they support social change, development, and public health emergencies, among other facets of human wellbeing (Amin, 2024). Numerous NGOs support government initiatives, such as addressing cholera epidemics by implementing Water, Sanitation, and Hygiene (WASH) programs (Rebaudet et al., 2021).

Since the 1970s, cholera outbreaks have been common in Pemba Island, which is part of Zanzibar, as well as in many other coastal locations (WHO, 2023). According to reports, NGOs have been working with government agencies ever since to control and stop epidemics in these areas (WHO, 2023).

#### 1.2 Background Information

Cholera is a major cause of sickness and mortality that affects many nations around the world. More than 535,321 cases of cholera were reported worldwide in 2023, leading to 4007 fatalities (WHO, 2023). Globally, there were 227 recorded fatalities and more than 60,000 new cases between July 31, 2024, and August 31, 2024. The majority of the 40 nations with the highest reported worldwide cholera burden are Low- and Middle-Income nations (LMICs). Cholera outbreaks are more likely to occur in LMICs because of things like poor health systems, a lack of good water and sanitation, conflict-related displacement, climate change, and natural disasters (Kigen et al., 2020).

Nearly half of all cholera cases occur in Africa, especially in sub-Saharan Africa, making the continent the site of a large percentage of cholera outbreaks among LMICs (Amisu et al., 2024). Nine African nations—Burundi, Comoro, Republic Congo, Ethiopia, Mozambique, Nigeria, Tanzania, and Zimbabwe—reported 6,092 new cases and 99 fatalities as of July 2024 (WHO-African Region, 2024).

Like in many other sub-Saharan African nations, cholera is prevalent in Tanzania, where outbreaks have been happening almost every year. WHO reported 3090 cholera cases in Tanzania between January 2022 and March 31, 2024, including 55 fatalities (WHO African Region, 2024). High rates of cholera epidemics in metropolitan places like Dar es Salaam and Zanzibar are caused by a combination of social and environmental variables, including rapid urbanization, rainy seasons, and floods.

According to reports, Zanzibar Islands (Unguja and Pemba) have seen a significant number of cholera outbreaks since 1978, with 14,364 cases and 210 fatalities. Due to the absence of epidemic data from prior years in the record, these figures are probably understated, indicating that there may have been an even greater number of cases if all were reported (RGZ, 2018). The worst cholera outbreak in the past few years occurred in 2015–2016, affecting 4330 individuals and resulting in 68 fatalities, with Micheweni district in Pemba being particularly highly affected (RGZ, 2018).

Through the Global Task Force on Cholera Control, the World Health Organization (WHO) developed a plan and a tangible route to eradicate cholera as a public health concern and cut the number of cholera fatalities worldwide by 90% by 2030 (WHO, 2017). This plan asks for multisectoral intervention in cholera hotspots, early identification and response to contain epidemics, and efficient coordination at the national, regional, and international levels in order to meet these goals.

As noted earlier, outbreak of Cholera requires multiple partners to cooperate together and complement each other in attaining recovery and safety for surrounding community. In Particular NGOs which have interventions directed at community well fair, social development and health are important partners to the government when outbreaks of Cholera emerge.

In its efforts to promote social and economic development, the Revolutionary Government of Zanzibar recognized the critical responsibilities that nongovernmental organizations (NGOs) play. A number of non-governmental organizations have participated in the execution of several policies, including the Zanzibar Comprehensive Cholera Elimination Plan (ZCCEP, 2018–2027) and the Zanzibar Disaster Management Policy (RGZ, 2012; RGZ, 2018). Since this collaboration was established, Pemba Island's local cholera epidemics have drastically decreased. While there is little data on NGOs' involvement in cholera outbreaks, they have been observed to assist impacted communities in other disasters by participating in rescue efforts, offering aid, shelter, and livelihood support, as well as setting up health camps when necessary (Cambaza et al., 2019).

#### 1.3 Statement of the Research Problem

There have been several cholera outbreaks in Pemba Island, Zanzibar, throughout the years; one of the worst was in 2015–2016, when 1,239 individuals were afflicted and 13 people died (WHO, 2018). In order to stop the disease's local spread, the Zanzibar government, in collaboration with interested parties such non-governmental organizations, created and executed the Zanzibar Comprehensive Cholera Elimination Plan (2018–2027) (RGZ, 2018). Cholera occurrences in Pemba have significantly decreased, according to recent studies, with only occasional outbreaks happening, especially in high-risk communities with limited access to potable water (Redae et al., 2023).

Communities in Pemba have benefited greatly from the assistance provided by non-governmental organizations (NGOs) during cholera epidemics. Clean water, sanitary facilities, health education, and emergency medical assistance are some of their efforts. These efforts are recognized by the government as being crucial to the reduction of cholera cases (Redae et al., 2023).

Even while NGOs are acknowledged to have a part in responding to cholera, nothing is known about their precise contributions in Micheweni District, one of Pemba's most impacted locations. Assessing the effects and pinpointing opportunities for improvement of NGO activities in Micheweni requires an understanding of their scope and efficacy. By investigating the function of NGOs in Micheweni District's cholera response efforts, this study aims to close this information gap and offer insights that might improve future public health initiatives and partnerships.

## 1.4 Research Objectives

# 1.4.1 General Objective

The general objective of the study was to examine the contribution of non-governmental organizations in responding to cholera epidemics in Micheweni District, Pemba.

#### 1.4.2 Specific Objectives

- (i) To determine the social supports provided by NGOs during the Cholera epidemic emergency period to the communities in Micheweni district, Pemba
- (ii) To assess the economic support played by NGOs during the Cholera epidemic emergency response period to the communities in Micheweni district, Pemba
- (iii) To identify challenges encountered by NGO in supporting the community during Cholera emergency response period in Micheweni district, Pemba.

# 1.5 Research Questions

(i) How were the social supports provided by NGOs during the Cholera Epidemic emergency period perceived by the communities in Micheweni district?

- (ii) How were the economic supports provided by NGOs during the Cholera Epidemic emergency period perceived by the communities in Micheweni district?
- (iii) What were the main challenges encountered by NGOs in providing social and economic supports during the Cholera epidemic emergency period in Micheweni district?

## 1.6 Significance of the Study

The study findings could have significant implications for decision-makers and government officials, particularly in health and disaster management sectors. By understanding the specific roles that NGOs played in responding to Cholera outbreaks, they can better appreciate the complementary efforts of these organizations and the expertise they bring to the table. This could encourage the government and other stakeholders to create policies that better integrate NGOs into disaster preparedness and response frameworks.

This study contributes to the academic literature on the role of non-governmental organizations (NGOs) in responding to public health emergencies, particularly Cholera outbreaks. While there is existing research on the general role of NGOs in disaster management, this study's focus on a specific region (Micheweni District, Pemba) offers a unique case study.

Findings of the study will raise awareness in the local community about the essential roles that NGOs play during Cholera outbreaks. NGOs provided life-saving

interventions, such as delivering clean water, offering medical care, educating the public on prevention, and distributing hygiene supplies. By identifying and assessing these contributions, the study will help community members recognize the importance of NGOs in preventing the spread of the disease, which could lead to greater local support for these organizations and their initiatives.

# 1.7 Organization of the Dissertation

This dissertation has five chapters. Chapter One consists of introduction, background, statement of the research problem, objectives of the research, research questions, significance of the study and the organization of the dissertation. Chapter Two consists of literature review, in which there are conceptual definitions, critical review of supporting theories or theoretical analysis, empirical analysis of the relevance studies, research gap and conceptual framework. Chapter Three which is for research methodology, consisting of research strategies, study population, area of research, sampling design and procedures, variables and measurement procedures, methods of data collection, processing and analysis. Chapter Four consists of the data analysis and presentation and discussions of research findings and. Chapter Five includes conclusion, summary of key findings and recommendations based on the research findings.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

As established in Chapter One, there is information lacuna in Zanzibar about the how and at what level NGOs support communities during and after pandemic such as floods, earthquakes and eruption of diseases such choleras. Specifically, in the context of managing the cholera pandemic, there is inadequate organized and published information regarding the role of non-governmental organizations (NGOs) in collaborating government organizations in addressing and mitigating the crisis. This chapter examines various published and unpublished academic sources, encompassing books, journals, articles, theses, and reputable internet resources. It offers a comprehensive view by integrating both theoretical framework and empirical evidences, aligning with the study's objectives.

The first section constitutes definition of key concepts and variable used in this study. The second section elucidates the public service model as a selected theoretical perspective underpinning the study, while the third section critically analyses the empirical literature that aligns with the study's objectives in understanding the contribution of NGOs in the affected communities during and after cholera outbreaks. The last section summarizes a synthesis of this chapter and establishes research gaps with its corresponding conceptual framework to be worked upon to bridge the knowledge gap make a valuable contributions contribution to humanitarian research domain in particular and discipline in genial

# 2.2 Definition of Key Concepts

## 2.2.1 Non-Government Organization (NGOs)

World Bank (n.d) in Suguna (2016) defines NGO as many groups and institutions that are entirely or largely independent of government. They include charitable and religious associations that mobilize private funds for development, distribute food and family planning services and promote community organization. They also include independent cooperatives, community associations, water-user societies, women's groups and pastoral associations (Suguna, 2016).

Based on Zanzibar NGO Policy (2009), and for the purpose of this study, NGOs is a voluntary group or voluntary private group or voluntary organization that are free and do not base on political inclination, not benefit sharing, established at social level, nationally or internationally with the objective of benefiting community especially the purpose of bringing economic and cultural development"

# 2.2.2 Epidemic

An epidemic is the rapid spread of disease to a large number of people in a given population within a short period. For example, in meningococcal infections, an attack rate in excess of 15 cases per 100,000 people for two consecutive weeks is considered an epidemic (WHO, 2017). Cholera is considered epidemic because of its features of spreading rapidly in areas with inadequate treatment of sewage and drinking water. The study adopted the definition of the Center for Disease Control and Prevention (2021) that an "epidemic is an outbreak of a disease that affects an unusually large number of individuals in a particular population, community, or region"

#### 2.2.3 Cholera

According to the World Health Organization (WHO) and for the purpose of this study, cholera is "an acute diarrheal infection caused by ingestion of food or water contaminated with the bacterium Vibrio Cholerae" (WHO, 2017).

## 2.2.4 Recovery

This study adopted WHO (2021) definition on recovery as "the process of restoring a community or population affected by a disease outbreak to its pre-outbreak state. It comprises various aspects such as controlling the spread of the disease, providing medical care to the affected individuals, and implementing measures to prevent future outbreaks"

#### 2.2.5 Resilience

This study adopted the definition of Graveline and German (2022) who define resilience as "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management"

# 2.3 Theoretical Review

## **2.3.1** Collaborative Governance Theory

This theory concerns with collaborative governance whereas process involving public/state and non-state actors together jointly addressing an issue. It is therefore a framework that focuses on the process and outcome of collaboration among multiple

stakeholders including governmental and non-governmental organizations directed to the needy community. It recognizes that complex social problem such as public health issues which cannot be addressed by single entity alone instead it requires coordinated effort of entities.

Collaborative governance theory lacks single specific founder like many other theories, but it has been shaped and reshaped by several scholars over time. However, Christopher Ansell and Alison Gash are regarded are early pioneers of the theory formalized the concept of collaborative governance through their 2007 research paper titled "Collaborative Governance in Theory and Practice". In their research paper, they defined what the term collaborative governance means and its reflection on how public entities directly engage non-government states in collective decision-making process that is formal, consensus-oriented and deliberative (Ansell and Gash, 2007)

This theory fits the current study's context that, Outbreaks of Cholera in any place usually cast its consequences from few to thousands of people at once calling for prompt and an extended collaborative relief service. Depending to peculiarity of the impacts of Cholera outbreaks countries Government particularly in the low- and Middle-Income Countries are not able to meet the required needs by victims on time. Therefore, this calls for collective collaboration governance between the public and private sector, particularly the NGOs which work in line with what communities require.

Several scholars have applied Collaborative Governance Theory to understand various aspects of multi-sectoral cooperation in disaster response. Woong (2019) examined how public and private organizations in South Korea collaborated to manage natural disasters such as earthquakes, which posed significant challenges beyond the capacity of the government alone. His study highlighted that effective disaster management required the integration of governmental and non-governmental efforts, leveraging shared resources, expertise, and decision-making structures. This perspective is highly relevant to the cholera response in Micheweni, where NGOs complement government efforts by providing sanitation facilities, clean water, and public health education.

Similarly, Aung and Lim (2021) analyzed the evolution of collaborative governance in Myanmar's flood disaster responses from 2015 to 2018. Their findings demonstrated that search-and-rescue networks evolved over time, forming strong, weak, and preferential ties, ultimately improving coordination and effectiveness. They concluded that collaborative governance led to more efficient disaster responses compared to actions taken by a single entity alone. This insight is particularly relevant to Micheweni, where cholera outbreaks required coordinated interventions among multiple stakeholders, including NGOs, government agencies, and local communities.

These studies reinforce the applicability of Collaborative Governance Theory in disaster management, demonstrating that each organization involved in cholera response in Micheweni had a distinct but complementary role in mitigation efforts.

By examining how NGOs contribute to cholera management within a collaborative governance framework, this study assessed their effectiveness in strengthening public health resilience in the district.

While Collaborative Governance Theory has its strengths in fostering inclusivity and shared decision-making among Governmental and Non-governmental Organizations, there are weakness exists on this theory. One of key weakness is power imbalance among the entities, whereas the stronger and more resource-rich NGOs or Public tend to dominate decision making process than the counterparts thus decision-making favors powerful actors. This weakness is however not a case in Emergencies like that of Cholera where there is an established WHO emergency response protocol for players to follow (Global Task Force on Cholera Control, 2019). In addition, some stakeholders in collaborative governance often have different objectives, values and goals. This weakness can be avoided by giving each stakeholder an area that fits to its objectives such as provision of cholera awareness, Case identification, Case management, WASH, etc.

#### 2.4 Empirical Literature Review

# 2.4.1 Contribution of NGOs to Economic Support

Outbreak of Cholera is among of public health issues challenging mostly low- and middle-income countries whose, their governments lack financial capacity to afford all what it is required in such condition. Thus, public and private sectors collaboration is inevitable for successful support of the challenged community. Scholars across these countries have examined how different NGOs have

participated shoulder to shoulder with their respective Governments to offer different forms of economic supports to societies experiencing Cholera outbreaks.

In Harare Zimbabwe, Mbwirire and Naume (2016) conducted a cross-sectional study to identify interventions which have been done and what still need to be done in order to effectively control cholera. To ensure access to safe water and prevent further Cholera outbreaks NGOs which worked to offer WASH service, implemented cash-for-work among community members who participated in construction and repair of infrastructure. This helped them to earn income to cater for different household demands. Despite nailing such important observation, this study was conducted in Harare-Zimbabwe which has different environments to what coastal areas like Micheweni- Pemba have, which means NGOs could offer different types of interventions based on particular need in the area.

Yemen also experiences outbreaks of Cholera in the Middle East due to civil war and other humanitarian crises. Tappis et al. (2020) conducted a study to examine response during humanitarian crisis in Yemen during the 2016-2018 Cholera outbreaks. Findings reported show that during the first wave of Cholera outbreak in 2016 the country had limited access to food, thus Some NGOs distributed food voucher to communities affected which enabled them to access food in nearby Markets as plan to have safer community and prevent further outbreaks. Other NGOs were noted to have financed local water vendors to lower their selling prices to community in areas limited piped water supplies. The paper highlighted important findings which correspond to the prevailing humanitarian crisis in the country,

however the study did not clearly explain what role did different NGOs contributed in supporting the needy community.

In Mozambique, Cambaza et al. (2019) conducted a study on Outbreak of Cholera due to Cyclone Kenneth. The study aimed to explain how the outbreak of cholera occurred and the response by government and Partners. Resulted obtained indicated that there was good response to outbreak of Cholera initiated by Ministry of Health in collaboration with other stakeholders. These stakeholders include Médecins Sans Frontières (MSF) and OCHA as a consortium of Save the Children, Oxfam and Care. The findings acknowledged importance of having collaborative governance and partnership between Public and private organizations. Moreover, the study found that OCHA consortium participated in preparation and provision of agricultural inputs to victims of cyclone in two accommodation centers while the United Nations Population Fund (UNFPA) among other provided affected victims with tents as temporary shelters for them and their families. Some limitation of the study is that, it has combined two disasters – cyclone and cholera – thus their interventions may not be similar with an area experiencing Cholera outbreak without a cyclone.

## 2.4.2 Contribution of NGOs to Social Support

Cholera victims feel anxiety, fear, helpless and even socially excluded, hence emotional and social engagement support becomes imperative for their recovery and resilience. In Iran, for example, Fallah (2018) conducted a case study to determine the role of Non-governmental Organizations in Disaster Management Using Cholera and Earthquakes as references. It was established that local and international NGOs

supported the need communities through provision of relief and rescue services, sanitation, treatment, psychological treatments and training to prevent further outbreak of cholera. The study concluded that, developing the NGOs' activities in all levels, including technical, social, cultural, and economical aspects, is an appropriate reaction strategy to reduce the risk of Cholera and earthquakes in Iran. Despite presenting important contributions of NGOs in Iran, the weakness of Fallah's study is its focus on both earthquake and Cholera outbreaks which makes difficult to know the types of contributions directed to particular emergence.

Nigeria is one of the highly populated countries in the world. Poor sanitation in its cities and existence of civil war makes it prone to Cholera outbreaks. Ngwa et al. (2020) conducted a study on the multisectoral emergency response to a cholera outbreak in internally displaced persons (IDP) camps during the 2017 cholera outbreak in Borno State, Nigeria. Their study highlighted the collaboration between the government and NGOs like MSF, WHO, GAVI, and UNICEF, who played vital roles in case management, vaccine distribution, and implementing WASH services in areas with limited access to safe water. This study emphasizes the importance of collaborative governance in managing cholera outbreaks, where diverse actors must work together to mitigate disease spread.

However, in relation to the current study in Micheweni, Pemba, contextual differences must be considered. While Borno's cholera outbreak occurred in IDP camps amidst civil conflict, Micheweni faces cholera risks primarily due to poor sanitation and inadequate access to clean water. This study focused on Micheweni's

specific challenges, focusing on improving local health infrastructure and water access rather than managing displacement.

Another consideration is the sustainability of interventions. Ngwa et al. (2020) focused on immediate response but did not address how interventions were sustained long-term. In Micheweni, the study explored how NGOs' contributions were integrated into the scope of local community for lasting impact, focusing on building local capacity for disease prevention.

In Sudan, a study by Yagub and Mtshal (2015) reported that international NGOs have been providing over 70% of curative health services to the State's population. added that they contributed to 52.9% of the health budget and 1,390 health personnel compared to 1% of North Darfur government spending in health service. The study identified despite of co participatory with the government, NGOs participation have been provision of technical assistance to the health staff, supporting public health facilities, and established 24 health centers in IDP camps and 20 health centers across all the districts in North Darfur state. These have been of high importance for detection, reporting and management of patients during outbreaks of Cholera within the camps. This study has shown supportive role of NGOs to overall health of community in IDP camps; however, it has presented only generalized contributions of NGOs to health sector but did not specifically focus on types of support during outbreak of cholera.

A qualitative descriptive study conducted by Said (2011) examined cholera preparedness, response, and prevention in Southern African countries within the

SADC region. The study highlighted the involvement of both transnational and local NGOs, such as WHO, Red Cross, and MSF, which bring expertise, knowledge, and resources to cholera outbreaks. Said noted that these organizations play different roles across SADC member states, including providing health education and awareness campaigns, supporting vulnerable populations such as women and children, training local healthcare systems, and delivering WASH services. The study concluded that NGO-public cooperation is crucial in responding to cholera outbreaks.

However, since the study focused on the entire SADC region, it did not account for the unique factors influencing cholera outbreaks in individual member states. While SADC countries share similarities, variations in socioeconomic conditions, healthcare systems, and environmental factors affect how cholera spreads and how responses should be tailored. This highlights the need for context-specific research, as each country requires targeted strategies for cholera preparedness and response.

## 2.4.3 Challenges Facing NGOs During Supporting Cholera Response

While NGOs play a crucial role in disaster recovery and community resilience, they face numerous challenges in the process. Kimathi (2018) highlighted that a cohesive framework for NGO collaboration is lacking, with policies that are both enabling and restrictive. However, this study focused on general NGO-related policies rather than the specific obstacles NGOs encounter in cholera response efforts. The findings of this report indicate that NGOs in Micheweni face bureaucratic hurdles, funding

limitations, and coordination gaps, which significantly impact their ability to respond effectively to cholera outbreaks. These challenges hinder timely interventions and the sustainability of preventive measures, calling for policy reforms to enhance NGO participation in public health crises.

Similarly, Tappis et al. (2020) found that NGOs in Yemen experienced significant operational challenges due to insecurity, limited healthcare infrastructure, and logistical barriers in delivering essential supplies. While the context of Micheweni differs from a conflict zone, this study found that NGOs in the district still face logistical constraints, particularly in reaching remote communities, ensuring a stable supply chain for medical resources, and maintaining effective WASH interventions. Poor road infrastructure and inadequate financial resources have further complicated NGO operations, reducing their ability to provide consistent and long-term support in cholera-prone areas.

The findings of this study confirm that NGO challenges are multifaceted, influenced by policy restrictions, logistical barriers, and resource constraints. Addressing these issues requires stronger policy support, better coordination between NGOs and government agencies, and improved infrastructure to facilitate cholera response efforts in Micheweni.

Tanzania's report on the contribution of NGOs to development (URT, 2015) highlighted several challenges, including heavy dependence on external donors, which often results in NGOs prioritizing donor interests over community needs. Additionally, the report noted that most NGOs are concentrated in urban areas,

leaving rural communities underserved. Other key issues included a lack of innovation in project planning and implementation, as well as shortages of both human and financial resources, which impact their overall effectiveness.

However, Tanzania's report provided a broad assessment of NGO performance across multiple sectors, including education, health, social services, and agriculture. It did not specifically focus on NGOs responding to emergencies such as cholera outbreaks. Given the unique nature of emergency response, where timeliness, coordination, and resource mobilization are critical, the challenges faced by NGOs in cholera response efforts may differ from those encountered in long-term development projects. This study in Micheweni provides a more targeted analysis, offering insights into how these challenges manifest in emergency health interventions and the extent to which NGOs are equipped to handle cholera outbreaks effectively.

Similarly, Islam and Walkerden (2015) examined the relationship between households and NGOs in promoting disaster resilience and recovery. Their study identified favoritism, delays in response, bribery in relief distribution, and the risk of conflict due to uneven aid allocation as key challenges affecting NGO interventions during emergencies. These findings align with this study's observations in Micheweni, where unequal aid distribution, delayed response times, and resource shortages were noted as major setbacks in cholera response efforts. The lack of localized decision-making and inconsistent funding limits NGOs' ability to address cholera outbreaks effectively. These challenges call for greater accountability,

community-driven approaches, and diversified funding sources to enhance NGOs' impact in public health emergencies.

In Iran, Fallah *et al.* (2018) observed that, among the problems faced NGOs during emergency of earth quake rescue in Iran were; people lack knowledge about NGOs, and their roles during disaster, inadequate cooperation between NGOs and government and low confidence of the society on NGOs activities, weak cooperation among NGOs and unhealthy legislation about NGOs in Iran. Studies available with regard to challenges facing NGOs during emergency are more general rather than cholera specific so leave challenges with regards to response associated with cholera epidemic unexplored.

# 2.5 Research Gap

The available literature has played a greater role by showing how the NGOs are supporting communities economically. Tucktuck *et al.* (2017) in Palestine depicted that, the majority of the local NGOs focused on primary healthcare and rehabilitation, while most of the INGOs worked on health development and emergency response. On the other hand, Ndiao (2020) in the Ruchoungo South found that agriculture and HIV/AIDs were the leading program undertaken by NGOs. Meanwhile, Yagub and Mtshal (2015) depicted that, in North Darfur the international NGOs have been providing 70% of curative health services to the State's population by contributing 52.9% of the health budget and 1,390 health personnel compared to 1% of North Darfur government spending in health.

The aforementioned studies show the massive contribution of NGOs support community in social life. For example, Kimathi (2018) revealed that NGOs are making a considerable contribution towards child poverty. Das (2016) asserted that majority of non-governmental organizations are involved in preventive care activities through outreach programs while in term of challenge facing the NGOs (URT, 2015) reported that most of the NGOs are external donor dependent and mostly working with donor interest rather than community, most NGOs located in urban area and working to the expenses of rural settings. Islam and Walkerden (2015) found that challenges associated with NGOs during emergency response include favoritisms, delay on response, bribing during distribution and risk of induce of conflict due to uneven distribution of relief.

However, a majority of the studies have explained the experience of outside of Zanzibar. They have failed to show how NGOs support the community economically and socially during cholera epidemic and the challenges they encounter during the outbreaks. Thus, this study has focused on depicting the truth in Zanzibar especially Pemba at Micheweni district how NGOs do support the community in economic and social aspects and the challenges they face during Cholera Epidemic outbreaks.

### 2.6 Conceptual Frame Work

Non-Governmental Organizations (NGOs) play a crucial role in social and economic development, particularly in public health emergencies such as cholera outbreaks. Their collaborative efforts with the government in Micheweni District, Pemba, have been instrumental in strengthening cholera response and prevention strategies. This conceptual framework details how NGOs provided social and economic support

through their partnership with the government to enhance healthcare services, improve sanitation, and build community resilience against cholera. Challenges faced by NGOs during the process are also examined. Looking at the role played by NGO to respond to the outbreak of Cholera the following variables are considered.

Independent Variables: These are factors which considered to cause or influence changes in other (outcome) variables. In relation to the current study these are inputs or interventions provided by NGOs participating in controlling Cholera Outbreak. This study has grouped these interventions in two main types Economic supports-which are financial or resource based-interventions provided to beneficiaries to improve or address specific need. Other is Social Support-which is any non-financial assistance provided to individual or community with the aim of improving g their well beings.

**Dependent Variables:** These are factors/variables measured in research to see how they have been influenced by independent variables. In the current study, dependent variables are measured through the Cholera Incidence rates (Number of Cholera cases in affected areas).

**Intermediate Variables**: These are factors that either explain how independent variables affect the dependent variables or influence the direction or strength of the relationship between variables. In this study, Intermediate variables are challenges facing NGOs in implementing their objectives to control Cholera Outbreaks.

### 2.6.1 Relationship of Variables

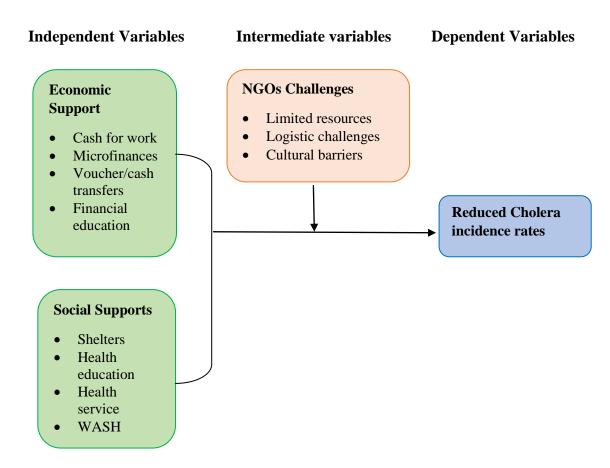
In this conceptual framework, the reduction in cholera incidence was the outcome variable, explained through a pathway influenced by both independent and intermediate variables.

The economic and social supports provided by NGOs functioned as the primary independent variables that initiated the response mechanism. These supports were intended to improve economy, water, sanitation, and hygiene (WASH) conditions, promote health-seeking behaviors, and strengthen community resilience all of which are known to contribute to the reduction of cholera transmission and effects in the society.

However, the challenges faced by NGOs; including logistical constraints, limited resources, and coordination difficulties served as intermediate (mediating) variables that influenced the strength and reach of those interventions and supports. These challenges potentially affected the timely delivery, quality, and coverage of NGO support, thereby modulating the impact of the interventions on the community.

Thus, the reduction in cholera incidence in Micheweni District, Pemba was not only a direct result of the NGOs supports but also depended on the extent to which these challenges were present or mitigated. In this conceptual framework, the outcome variable is best understood as a result of both the support provided and the contextual or operational factors that shaped the implementation of that support.

Figure 2.1: Conceptual Framework



**Source:** Author's construction (2023)

#### CHAPTER THREE

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter delineates the methodology employed to analyses the contribution of Non-Governmental Organizations (NGOs) in addressing cholera epidemics within the Micheweni District, Pemba. The methodology comprehensively details the rationale behind the selection of the research area, the study's design, and the utilization of specific tools, emphasizing the justification for their selection. Structurally, chapter three is organized into research philosophy, research design and approach, study area, the targeted population, method employed for sampling.

It constitutes also the methods and tools used for data collection, processing, and subsequent analysis. The methodology was intricately selected and tailored to steer this investigation toward its primary objective: examining the contributions of NGOs in responding to cholera epidemics within the Micheweni District.

#### 3.2 Research Philosophy

A research philosophy known as pragmatics emphasizes real-world outcomes and multidisciplinary methods to problem-solving. It highlights the value of mixed methods research, inclusion and engagement, and an emphasis on results (Saunders, 2009). Since pragmatism entails comprehending complex issues that may call for input from various stakeholders and disciplines, it was a suitable research philosophy for this study on the social and economic support given by NGOs during the cholera epidemic emergency period in Micheweni district. The study's pragmatism approach

has yielded a thorough and useful knowledge of the issue, which guides future actions and emergency care. As a result, selecting this research philosophy has helped to accomplish the goal of the study.

#### 3.3 Research Design

Research design refers to the overall strategy or blue print that a researcher follows to integrate different components of the study in coherent and logical manner. It describes how sampling procedures, data collection and data analysis will he performed to address the research problem under the study (Kothari, 2006). This study employed a descriptive-cross sectional study design as it aimed to describe different types of contributions and challenges facing NGOs in responding to Cholera outbreaks. It was descriptive because it focused on summarizing and explaining types of intervention/support provided as well as challenges encountered by NGOs. It is cross-sectional as it captures snapshot of population at one specific moment.

#### 3.4 Research Approach

In order to obtain a thorough grasp of the issue, this study employed a mixed methods research technique, which enables the collection of both qualitative and quantitative data. This section emphasizes the benefits of employing mixed methods for this specific study and concentrates on the general strategy for gathering data. Because both qualitative and quantitative approaches have their own advantages and disadvantages, the hybrid strategy was chosen because it allowed researchers to better grasp the study topic. It also makes triangulation possible, since researchers

may triangulate their findings by employing a variety of data collection techniques. This enables them to cross-validate and compare their findings from other sources. This can improve the findings' validity and dependability. Furthermore, by documenting the viewpoints of many stakeholders, including members of the community, non-governmental organizations, and government representatives, the research methodology offers a variety of views. As a result, the mixed method approach used to try to accomplish the study goal was compatible with some aspects of the research design.

#### 3.5 Area of the Study

The study was carried out in Pemba's Micheweni District, Zanzibar. The area was specifically chosen because it had the greatest number of cholera cases (more than 708) during the 2015–2016 outbreak (RGZ, 2018). Numerous non-governmental organizations have been assisting the government in improving the quality of life for the residents of Micheweni district, which was listed as the poorest area (OCGS, 2019). Numerous variables, such as periodic floods, restricted access to clean water, and inadequate sanitation, especially in the eastern half of the region, increase the risk of a cholera epidemic. During the 2015–2016 outbreak, Shehias such Majenzi, Chamboni, Shanake, Kiuyu, Maziwang'ombe, and Mjini Wingwi were among the areas in Micheweni most impacted.

#### 3.6 Population of the Study

The study population consisted of 235 individuals who received NGOs' assistance during the 2015–2016 Cholera Outbreak in six specific Shehias in Micheweni

district; additionally, 13 individuals who were NGOs' heads, local leaders (Shehas), health officers, and members of the PHAST team participated in key informant interviews. The six shehias of Majenzi, Mjini Wingwi Chamboni, Shanake, Kiuyu, and Maziwang'ombe were specifically chosen due to their high case counts during the 2015–2016 cholera outbreak (RGZ, 2018), which was characterized by a high incidence of cholera eruption in Zanzibar in general and Micheweni district in particular (ZCCEP 2018–2027). The target population (beneficiaries) frame is summarized in Table 1 below:

**Table 3.1: Study Population** 

C/NIO	C11.:/	Number of beneficiaries				
S/NO	<i>Shehia</i> /year	2015	2016	Total		
1	Majenzi	15	23	38		
2	Chamboni	8	14	22		
3	Shanake	9	16	25		
4	Kiuyu	12	25	37		
5	Maziwang'ombe	22	42	64		
6	Mjini wingwi	20	29	49		
	Total	86	149	235		

**Source:** *Sheha* office, (2023)

#### 3.7 Sampling Procedures and Sample Size

## 3.7.1 Sampling Procedures

Both purposive and random sampling techniques were utilized in determining the respondents. Key informants with pertinent expertise and experience in the domains being studied were chosen through purposive sampling technique. Participants who were directly or indirectly involved in the cholera pandemic emergency response phase were therefore chosen using purposive sampling. Purposive sampling is

helpful when you want to choose situations that are very instructive, according to Saunders et al. (2012).

On the other hand, beneficiaries among the community members who received assistance from NGOs during the cholera outbreak were chosen using a simple random sample process. In order to reduce section bias, promote validity and reliability, and offer a generalization mechanism, random sampling was employed.

The whole population of people affected by the cholera outbreak in 2015–2016 was reported by the Micheweni District Council. The researcher then chose victims who had benefited from the assistance offered by various responding NGOs. After compiling a list of their numbers, the researcher chose them at random until the required sample size was reached. Participants received questionnaires to complete after agreeing to participate in the study and signing a consent form. Every response was recorded in a box next to each question.

### 3.7.2 Sample Size

The sample size of this study was selected from the population NGO beneficiaries grouped in six *Shehia* as depicted table 1

To Calculate sample size, the study adopted Yamane formula as described in the study by Adam, (2020)

$$n = \frac{N}{1 + N(e)^2}$$

Where N = Total population of NGO beneficiaries-235 n = sample size and e level of significance (0.05)

$$n = 235/1 + 235(0.05)^2$$

$$n = 235/1 + 235(0.0025)$$

$$n = 235/1 + 0.5875$$

n=235/1.587

n = 148

The result comes up with 148 beneficiaries randomly selected from each *Shehia* as depicted in Table 2 below. A sample 148 is equivalent with 0.63% of the population, taking the percentage to the population, Shehiah distribution of the sample is below.

**Table 3.2: Study Sample** 

Shehia Name	Number of respondents (n)
Majenzi	24
Chamboni	14
Shanake	16
Kiuyu	23
Maziwang'ombe	40
Mjini Wingwi	31
Total	148

Source: Field data, 2023

### 3.8 Data Collection Methods

Face-to-face interviews with beneficiaries of cholera response support were conducted to gather both quantitative and qualitative data. Data on the social and

economic support were provided by NGOs during the cholera epidemic in 2015-2016. The reason behind it was to collect detailed information from community members about the social and economic support provided by NGOs during the cholera epidemic, and then conducting interviews was appropriate. It allowed indepth exploration of topics, probing of responses, and clarification of ambiguous answers (Willson, 2011). Interviews were also useful for understanding the perspectives of participants and gaining insight into their experiences and beliefs.

## 3.8.2 Key Informant Interviews (KII)

Likewise, semi-structured interviews with key informants were used to gather qualitative data on various types of supports provided as well as challenges experienced during the 2015/2016 cholera outbreak in Micheweni. A total of 13 key informants from different positions in NGOs, district health administration and local leaders were consulted for giving information required for the study.

**Table 3.3: Key Informants** 

S/No	Key informant	Number
1	Heath Officers (DHMT)	1
2	PHAST team member	2
3	Local leaders (Shehas)	5
4	Head of selected NGOs	5
	Total	13

Source: Field data, 2023

#### 3.9 Data Collection Instruments

#### 3.9.1 Questionnaire

Data from recipients of NGOs' assistance during the 2015–2016 cholera outbreak in Micheweni area was gathered via questionnaires (see appendix 1). Close-ended

questions regarding respondents' sociodemographic, the economic and social supports they got from NGOs, and their challenges were included in the questionnaire. These kinds of questions offered time efficiency and consistent responses from a large number of participants. The interviewer made sure that every participant was asked the identical questions in the same manner by employing a predetermined set of questions. This guaranteed that every participant was evaluated consistently, this reduced the possibility of bias in data gathering. Because it offered a defined structure for the interview, it also helped to guarantee that all pertinent information was gathered.

### 3.9.2 Key Informants Interviews

Interviews with key informants were used to gather qualitative data from the study's qualitative methodology. Key informant interviews followed a standardized interview framework. There were questions on the kinds of treatments that were provided and any difficulties encountered in a structured interview guide. Flexibility and structure were balanced in their structural design, which made them helpful for gathering information from important informants.

The guide allows for deviations to explore specific topics in more depth, while also providing standardization in the data collection process. As shown in appendix II, the key informants' replies were thorough and in-depth since the questions were customized to their areas of expertise. Participants felt more at ease during the interview process since the guide also offered a clear framework. All things

considered, the structured interview guide was a helpful instrument for gathering thorough and in-depth information from the study's Key informants.

### 3.10 Reliability and Validity of Data

### 3.10.1 Reliability

To measure the reliability of the data collection instruments an internal consistency, technique using Cronbach's alpha was applied. Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability. The cutting off value of  $\alpha \geq 0.7$  was observed. In addition to that, proper coding, unambiguous instructions and unbiased interview was among the strategies for maintaining internal validity of data. The questionnaire contained sets of questions for social and economic supports provided as well as challenges encountered by NGOs during control of the outbreak. Items in these sections contained binary or categorical variables. Data collected from the pilot study were entered into SPSS software version 25 to check consistency and completeness. Variables which were measuring similar themes/objective were grouped and tested for reliability. Reliability test gave the following Cronbach's alpha.

Table 3.4: Reliability Test

Objective	Cronbach's Alpha	Number of questions
Social Supports provided	0.73	6
Economic Supports provided	0.78	4
Challenges encountered	0.86	3

#### **3.10.2** Validity

To maintain external validity was maintained though carrying out a pre-testing of the

research instruments. Piloting test done on the same research instruments on a different but homogeneous sample of 15 respondents before going to the actual field activity. The pre-test come up with content, structural and scale validity comments to be incorporated in data collection instruments.

#### 3.11 Data Analysis

Quantitative data from the surveys were coded into The Statistical Package for social Science (SPSS) software version 25 and then analyzed using descriptive statistics to provide an overview of the social and economic supports provided by NGOs and challenges encountered during cholera epidemic period. Results obtained were presented using frequency and percentages in tables and figure followed by discussions about them in discussion chapters. On the other hand, qualitative data from key informant interview were analyzed using thematic analysis to identify common themes and patterns related to social and economic support provided by NGOs and challenges encountered.

#### 3.12 Ethical Consideration

Before embarking on data collection, permission was granted from postgraduate and research office at the Open University of Tanzania. Once at the field, respondents were asked to fill consent form before filling questionnaires. Respondents were guaranteed their anonymity of their names and other personal details. Furthermore, they were asked to participate on their free will and ready to withdraw anytime.

#### **CHAPTER FOUR**

## DATA ANALYSIS, INTERPRETATION AND DISCUSSION

#### 4.1 Introduction

This chapter four is about data analysis, presentation and discussion of the findings. It presents sociodemographic profile of respondents, economic and social supports provided victims of Cholera and challenges faced by stakeholders in ensuring delivery of supports during and after cholera epidemic.

### **4.2 Response Rate**

148 recipients of community assistance from NGOs during and after the cholera outbreak in Micheweni district on Pemba Island were the subjects of the study's original research design. 121 (81.76%) of the 148 beneficiaries from all six Shehias consented to take part in the study. The turnout is sufficient and representative to enable further study analysis.

### 4.3 Demographic Profile of Respondents

Socio-demographic characteristics of respondents were gathered and analysed to provide a comprehensive view of various aspects of respondent backgrounds. This enabled the researcher to effectively analyse different study variables in relation to respondents' backgrounds.

#### 4.3.1 Age Profile

The respondents in the survey ranged widely in age. People between the ages of 30 and 40 made up the largest proportion of the study population (43.8%), suggesting

that a sizable part of them are in their prime working years. Other age categories included those who were 18 (13.2%), those between 20 and 30 (27.3%), those between 40 and 50 (6.6%), those between 50 and 60 (4.1%), and those beyond 60 (5.0%). Because of this heterogeneous age distribution, cholera outbreaks affect almost every age group in the community. The elderly population need extra attention during support since they are more susceptible to the pandemic than the active population. Therefore, it is crucial that the Government of Zanzibar and other partners, such as NGOs, provide immediate collaborative support.

#### 4.3.2 Gender Profile

There were somewhat more male participants (64.5%) than female participants (35.5%) in terms of gender representation among the respondents. The higher representation of male participants compared to female participants (35.5%) in the study may be influenced by several socio-cultural and logistical factors. In many communities, especially in rural settings like Micheweni District, men are often more visible in public spaces where data collection typically occurs, such as markets, fishing areas, or community meetings. On the other hand, despite women being more vulnerable to cholera due to their caregiving roles, may have been underrepresented due to household responsibilities, caregiving roles, or cultural restrictions that limit their participation in public engagements.

### 4.3.3 Occupation Profile

The study revealed a varied occupational composition among the respondents. Fisher (55.4%) emerged as the most common occupation, indicating the significance of the

fishing activities within the research location. Other notable occupations included farming (16.5%), business (6.6%), small entrepreneurs (6.6%), government employees (1.7%), and individuals engaged in other occupations (13.2%). This occupational diversity provides valuable insights into the economic landscape and livelihoods within the research area as depicted in table 4.1 (see appendix III). The presence of various occupations suggests a diverse economic base, which is important for the community's resilience to economic shocks. Data also, underscores the need for tailored public health interventions, as different occupations may have distinct vulnerabilities and capacities to respond cholera. This information is crucial for designing targeted health education programs, as different occupational groups may require specific messaging or intervention strategies. In addition, NGOs and government agencies can collaborate to develop sustainable initiatives that support the economic activities of the community while at the same time addressing health concern.

#### 4.3.4 Residence

Respondents indicated their shehias of residence as part of sociodemographic characteristics within Micheweni district. The most prominent *Shehias* among the respondents were Maziwan'gombe (29.8%) and Mjini Wingwi (22.3%). Other significant *Shehias* included Majenzi (17.4%), Kiuyu (15.7%), Shanake (9.1%), and Chamboni (5.8%). The percentages correspond to the sample distribution of respondents since Maziwan'gombe has high proportion to the sample while Chamboni has the least proportion to the sample size. In other words, different in percentages indicated difference in population affected by Cholera among these

shehiah. and hence the beneficiaries of the support. This distribution provides insights into the geographical representation of the respondents and their potential influence on the research outcomes.

### 4.3.5 Education Level

Education level plays a significant role in determining individual behavior, including the adoption of hygienic behaviors. The survey gathered information on respondents' educational backgrounds, and the results are displayed in the table 4.1 see appendix III below: 9.9% of respondents had no formal education, 42.1% had completed elementary school, 28.1% had completed secondary school, and around 19% had completed college or higher education. Together, these data show that over half of respondents had just an elementary education or no education at all, indicating that the bulk of cholera victims had poor levels of education, which may have led to unsanitary practices that facilitated the epidemic.

#### 4.3.6 Household Income

The income levels of respondent families were assessed to understand their need for support during crises such as cholera outbreaks. Findings presented in Table 4.1 (Appendix) show that a significant proportion of respondents earned less than 50,000 Tshs per month. This low-income level may be attributed to their limited education and reliance on self-employment, primarily as subsistence fishers. Since their fishing activities focus on daily sustenance rather than generating surplus income, these families are financially vulnerable, making it difficult for them to afford healthcare services, clean water, and other necessities during outbreaks. This highlights the

economic fragility of the community and the critical role of external support in mitigating the impact of cholera.

**Table 4. 1: Demographic Profile of Respondents** 

Variable Name	Category	Frequency	Percent (%)
	18	16	13.2
	20-30	33	27.3
A	30-40	53	43.8
Age group	40-50	8	6.6
	50-60	5	4.1
	>60	6	5
C 1	Male	78	64.5
Gender	Female	43	35.5
	Government employee	2	1.7
	Farmer	20	16.5
Occupation	Fisher	67	55.4
	Business	8	6.6
	small entrepreneur	8	6.6
	Others	16	13.2
	Majenzi	21	17.4
	Chamboni	7	5.8
G1 1' ANI	Shanake	11	9.1
Shehias' Names	Kiuyu	19	15.7
	Maziwan'gombe	36	29.8
Gender  Gender  Male Female Government e Farmer Fisher Business small entrepre Others Majenzi Chamboni Shanake Kiuyu Maziwan'gom Mjini wingwi No formal Primary Education Level  Education Level  Secondary Vocational Higher Less than 50,00 Household Monthly  So,001-100,000	Mjini wingwi	27	22.3
		12	9.9
	Primary	51	42.1
<b>Education Level</b>	Secondary	34	28.1
	Vocational	15	12.4
	_	8	6.6
	Less than 50,000	52	43.0
•		33	27.3
income	100,001-200,000	25	20.7
G F' 11 1 4 20	above 200,000	11	9.1

### 4.4. Social Support

The respondents were surveyed regarding various aspects of social supports provided by NGOs, and their responses are presented in the following subsections.

## **4.4.1 Types of Social Supports Provided**

During cholera outbreaks worldwide, affected individuals require various forms of support from humanitarian organizations, including NGOs, to effectively control the disease and aid recovery. Respondents were asked to identify the types of social support they received from NGOs during the cholera outbreak in Micheweni. The findings, presented in the figure below, indicate that NGOs provided multiple interventions at varying levels. However, the majority of respondents reported receiving clean water and healthcare services. This is likely due to the surge in healthcare demand during the outbreak, as a large number of infections can overwhelm government health facilities, necessitating additional support from NGOs. Similarly, the high demand for clean water reflects its crucial role in preventing further infections, given that cholera spreads through contaminated water sources.

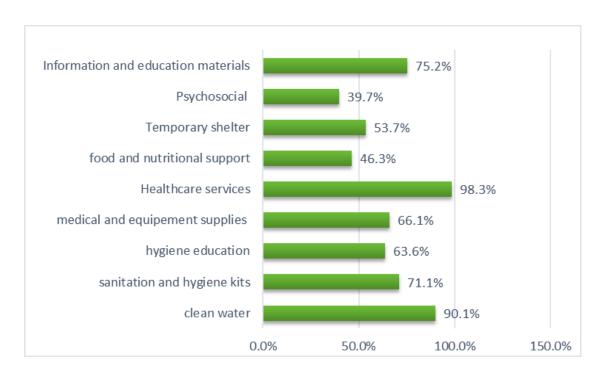


Figure 4. 1: Types of Social Supports Provided

Source, Field data, (2023)

#### 4.4.2 Source of Information About NGO Supports

The Government of Zanzibar in collaboration with NGOs intended to deliver intervention used different methods to inform the infected victims and community challenged by Cholera outbreaks regarding their program. Data obtained shows that there was no single way used to inform the target audience, instead NGOs used number of sources. However, conducting public meeting villagers in their respective Shehias was the reported by majority of respondents over 50%.

<sup>&</sup>quot;I remember during the Cholera outbreak, government leader came here from the district and held a meeting with villagers in my area about the presence of organizations providing various forms of aid to those affected by the disease" **Sheha -1, Shanake Shehia** 

These findings highlight that, despite there are multiple sources of informing the community, public meetings are considerable feasible in many settings where other source may not fit due to several limitations including cost implications. Thus, conducting public meeting was a cost free, reached large gathering at once and people have access to ask for clarification if any point is not clear. Other methods like TV/Radios and printed materials like newspapers needs people who are literate and who are economically well which could not fit precisely with communities in Micheweni where there a large segment of population who are illiterates and have low income to afford these sources of information.

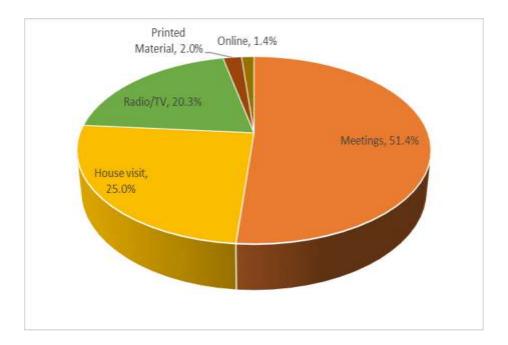


Figure 4.2: Source of Information on NGO Supports

### 4.4.3 List of NGOs Delivered Social Supports

During the cholera outbreak in Micheweni, several NGOs collaborated with the government of Zanzibar to provide various interventions. Respondents identified the NGOs from which they received social support. In total, six NGOs—SOS Children's Village, D-Tree International, Save the Children, Action Aid, Milele Zanzibar Foundation, and Ifraj Foundation—worked alongside the government to assist affected communities. Save the Children, an international NGO, provided services to over three-quarters of the respondents, likely due to its broad range of interventions and capacity to address diverse needs. Overall, the involvement of both local and international NGOs highlights a collective effort to support the affected communities and improve health outcomes.

The findings are partly in line with Fallah *et al.*, (2018) who note that, local, international NGOs provided relief, and rescue serves, food support, sanitation, treatment, emergency settlements, psychological treatments and training during Iran earthquake.

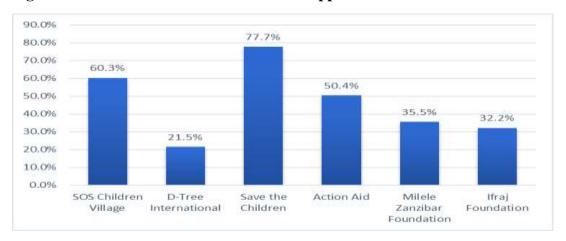


Figure 4.3: List of NGOs Provided Social Supports

### 4.4.4 Type of Social Supports per NGOs

Each NGO has a specific scope of intervention when responding to crises such as cholera outbreaks. During the 2015–2016 cholera outbreak in Micheweni District, the aforementioned NGOs provided various services to the affected communities. Findings presented in the figure below indicate that Save the Children delivered all nine types of social support, making it the most prominent NGO in the region for assisting cholera victims. SOS Children's Village followed closely, providing nearly all intervention types except education materials. Other NGOs also contributed, though to a lesser extent. These variations in intervention efforts may stem from differences in organizational vision and mission, resource availability, capacity, and the existence of complementary efforts from other NGOs, leading some to focus on less redundant interventions.

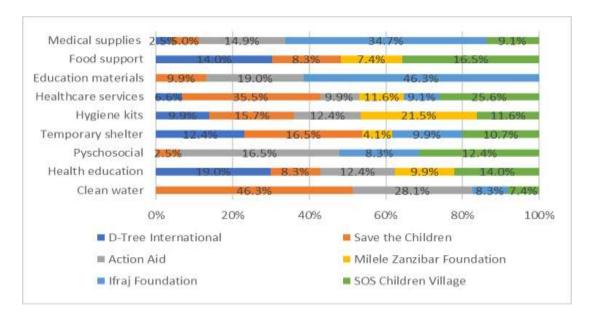


Figure 4.4: Types of Interventions Provided by NGOs

### 4.4.5 Quality of Support from NGOs

In this subsection, respondents were asked to indicate their perception on quality of social supports they received in relation to the actual demands they had. Findings in this subsection are presented in table below. Regarding the provision of clean water sources such as wells or water trucks during the outbreak, it was found that 26.4% of respondents indicated that NGOs did not provide such support to them. The remaining 73.6% received access to water support and have rated the extent of the support to be limited. These data means that, despite a large proportion of people received the support but it was neither sufficient nor durable.

Concerning sanitation facilities such as latrines and hand washing supports provided, respondents indicated that the overall rate of the support was of moderate extent. This can be interpreted that the support was somewhat effective but lacked full consistency and coverage. In terms of hygiene education to prevent the spread of cholera, 11.6% of respondents reported that NGOs did not offer them any of these supports. However, those who received this type of support rated the quality and indicated it was of moderate extent partly meeting their expectations and needs. A similar rating was reported by respondents who indicated to have received supports of medical supplies, equipment, and personnel to treat and manage cholera cases.

Moreover, in terms of food and nutrition support during the cholera outbreak, 28.09% of the respondents reported didn't get this support from NGOs. Respondents who benefited with food and nutritional support delivered to them, indicated that the support was of limited extent. Despite such limited supply, this was an important support to vulnerable groups of children and elderly affected by Cholera for

immediate healing and recovery as family income of respondents were insufficient to afford these heightened demands of proper nutritional support.

On the other hand, those who received temporary shelters during the outbreak of cholera indicated that this support was of limited extent as compared to what was required while respondents received psychological support was determined to be of moderate extent.

Respondents provided with information and education materials indicated they were contented to large extent. However, the overall responses revealed the support was of moderate extent. Respondents indicated to have been provided with different reading materials such as small books and pamphlets written in Swahili with pictorial illustrations about cholera. Healthcare support was the most accessed service to majority with a large number of beneficiaries (65.29%) reported it as of great extent. This strong emphasis on healthcare is reflected in the weighted mean of the analyzed data, underscoring its essential role in the management of cholera cases. The urgency of healthcare support likely contributed to its extensive reach, as anyone showing symptoms received prompt treatment, underscoring its critical value compared to other forms of NGO assistance.

Based on these findings, the study provided valuable insights into the level of social support provided by NGOs during the cholera emergency. It helps in understanding the overall efforts made by NGOs to address the social needs of the affected communities. The findings highlight variations in the extent of social support across different dimensions. This indicates that while certain areas, such as distribution of

healthcare service and information and educational materials received relatively higher attention, other dimensions of social support such as provision of water resources or temporary housing support, were lacking.

Overall, the implications of these findings underscore the importance of addressing social support needs comprehensively during cholera emergencies, with a particular focus on strengthening housing support and access to sustainable water resources compromising the current achievement. Various extant studies are in line with the current study findings. For example; Das (2016) who pointed that majority of nongovernmental organizations in India were involved in preventive care activities through outreach programs followed by preventive care and financing. Das added further that, NGOs involved other health related activities such as rehabilitative care and ancillary services like lab/image test, curative care contributed to better health outcome.

**Table 4.2: Quality of NGOs Social Supports** 

Item (Did NGO provide you with)	Not at All	Limited Extent	Moderate Extent	Great Extent	Weighted Mean	Interpretation
Clean water sources,	32(26.4%)	47(38.80%)	42(34.7%)	0 (0%)	1.47	Limited extent
Sanitation facilities such as latrines and hand washing	29 (24.0%)	44(36.40%)	48(39.7%)	0 (0%)	1.52	Moderate extent
Hygiene education	29(24.0%)	41(38.88%)	51(42.15%)	0 (0%)	1.55	Moderate extent
Medical equipment, and personnel support	27 (22.31%)	44 (36.4%)	50 (41.32%)	0 (0%)	1.53	Moderate extent
Psychological support	29 (24.0%)	44 (36.4%)	48 (39.67%)	0(0%)	1.52	Moderate extent
Food support	34 (28.09%)	45 (37.19%)	42 (34.71%)	0 (0%)	1.48	Limited extent
Temporary shelter or housing	45 (37.19%)	64 (52.89%)	12 (9.92%)	0(0%)	1.16	Limited extent
Information and education materials	24 (19.83%)	52 (42.98%)	35 (28.93%)	10 (8.26%)	1.57	Moderate extent
Healthcare services	5 (4.13%)	3 (2.78%)	34 (28.10%)	79 (65.29%)	2.66	Great extend

### 4.4.6 Relevance of Supports Provided

In addition, the respondents were asked to indicate the aspects of support provided by NGOs that they found most helpful to what they thought was at most important. Among all of the supports provided by NGOs, Healthcare services and Information & educational materials, were regarded as most helpful interventions by 33.9% and 24.0% of respondents. Healthcare services provided to those who were sick, helped to save their lives and bring them back to normal life. Information and education Materials included educational pamphlets, small books, brochures, and posters that provided information about cholera, symptoms, transmissions, treatment and prevention. These materials helped to inform them in right ways of what was cholera and what might have contributed to the outbreak and what to do in such situation as well as importance of reporting to health facilities than seeking alternative treatments such as consulting spiritual healers which could contribute to sustained infections. The observation reported by this study corresponds to what a previous study by Massawe (2017) underscored on the importance of health education materials to control the spread of cholera outbreak. These materials informed the public on the main cause of the cholera outbreak to include undergoing defecation out of toilets, not washing hands after visiting latrine, drinking un boiled water, eating uncovered and cold food, poor hygiene, and poor sanitation.



Some of the Messages shared through the brochures/pamphlets

**Table 4.3: Most Helpful Support** 

Item	Frequency	Percent
Health services	41	33.9%
Information and educational materials	29	24.0%
Sanitation facilities	12	9.9%
Food & nutritional supports	10	8.3%
Psychological support	11	9.1%
Clean water sources	7	5.8%
Medical support equipment & personnel	5	4.1%
Hygiene education	4	3.3%
Temporary shelter	2	1.7%

## **4.4.7 Scant Social Supports**

The respondents were asked to identify the aspects of support from NGOs that they found most insufficient. Among the various aspects of social support, temporary shelter and housing emerged as the most commonly reported as lacking, with 30.2% of the respondents highlighting this need. This issue may be attributed to poor housing of condition such as slums, where residents face significant challenges during the rainy season and would have benefited from improved shelter options. However, NGOs may not have provided sufficient support in this area due to funding limitations. Establishment of safe temporary shelter that meet hygienic standards requires structural designs capable of containing waste safely particularly for areas with individuals susceptible to Cholera Infection to prevent cross contaminations.

A large proportion of respondents also reported of lack of consistent support of water supply services. As mentioned earlier, some NGOs addressed this need by providing water through trucks and bottled water. However, this approach was unsustainable as it only provided a temporary solution, requiring continual replenishment. Th most effective and sustainable solution would have been to establish a piped water supply system. However, such as project would involve significant infrastructure including drilling wells, installing distribution pipes, and constructing water treatment and sanitation facilities. These requirements are costly and typically exceed the budgets of most NGOs deterring them from pursing this approach.

Likewise, Mondal, Chowdhury & Basu (2015) found that the roles of the NGOs in disaster management were providing relief materials, involvement in rescue operations, arranging temporary shelters; organize health camp and developing

communication facilities. Except arranging temporary shelters which fond lacking, most of other aspects come to agree with the study findings

35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
2.1%
9.4%
3.1%
4.2%
3.1%
4.2%

7.1%
11.5%
3.1%
4.2%

Temporary spelter

Temporary spel

Figure 4.5: Lacking Social Supports

Source: Filed data, 2023

### 4.5 Economic Support During Cholera Outbreak

The respondents were surveyed regarding various aspects of economic support provided by NGOs, and their responses were analyzed to determine frequencies, percentages, and where necessary weighted means was calculated. The findings shed light on the extent of economic support provided, its effectiveness in meeting the demand.

## 4.5.1 List of Economic Supports Provided

Data Obtained have shown that, Respondents despite receiving social supports, they also received economic support including the following Cash transfers/vouchers by

68.6%, Technical assistance and training in income-generating activities by 71.1%, Access to microfinance/credit facilities by 66.1%, Business development support by 71.9%, Support for job creation opportunities by 76.9% and Financial education 90.1%.

These data entails that financial education for better management of finances was the most common support provided majority of respondents during and after then outbreak of Cholera in Micheweni. This was an important assert for management of any money they would receive be it a an aid or any income they may generate though people may not value it that way.

## **4.5.2 List of NGOs Provided Economic Supports**

The respondents were asked to indicate NGO or NGOs from which they did receive the support. Data presented in the figure below shows that, a total of 3 NGOs participated to deliver economic supports to the need communities in Micheweni. Looking at this data set it shows that only fewer NGOs participated in delivery of economic supports compared to number of NGOs provided social supports. This could be due to nature of the needs in situation like outbreak of Cholera whereas majority victims need social related supports like safe water, healthcare service etc. These results show further that Ifraj Foundation, Milele Zanzibar Foundation and SOS Children Village were the only NGOs provided economic supports in varying extents to support recovery of the already poor communities. Ifraj Foundation provision of economic supports is part of its core missions to help communities since its establishment.

55

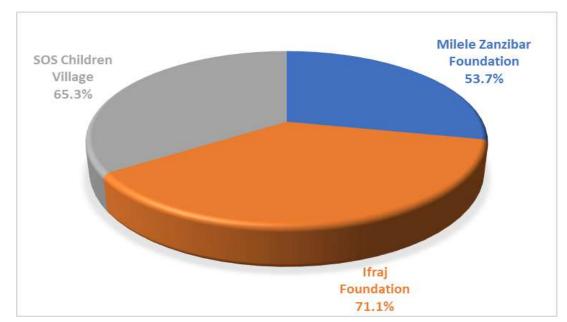


Figure 4.6: List of NGOs Provided Economic Supports

Source: Field data, 2023

# 4.5.3 Types of Economic Supports Provided by NGOs

Respondents indicated types of interventions they received from the three NGOs indicated to support them economically. Findings obtained have shown that

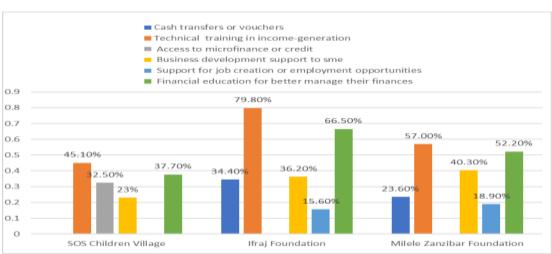


Figure 4.7: List of Economic Supports Provided by NGOs

### 4.5.4 Quality of Economic Supports provided by NGOs

Respondents who received economic supports rated different economic supports provide to them by NGOs considering what people needed. Regarding the provision of cash transfers or vouchers to affected households, findings show that respondents reported either very limited extent (38.0%) or moderate extent (30.6%) to support provided. After further analysis of data, it was portrayed that this type of support was of limited extent. This implies that cash transfer/voucher provided did not meet respondents' expectations. Different factors could be associated with these findings including NGOs' limited funding as detailed in challenges subsection below.

Concerning provision of technical assistance and training in income-generating activities to communities affected by Cholera, findings have shown that this support was of limited extent. This come as only few people who got income generating trainings while even those who were trained the training alone did not result income generation that people saw it as of limited extent.

Regarding Access to microfinance or credit facilities, during and after the cholera outbreak was reported as limited (27.27%) while 38.84% reported moderate extent. This support was analyzed using the weighted mean and revealed that this type of support was of moderate extent. Moderate extent signifies that the provided support was somewhat effective in meeting the basic needs of people to a reasonable portion of the community.

Regarding support for job creation or employment opportunities as well as provision of business development support to small businesses and entrepreneurs. Study findings have shown that majority of respondents perceived these supports to be of

limited coverage 57.02% and 41.33% respectively. Even after further analysis of data their weighted means, felled into limited extent category. This indicates that NGOs provided limited amount of these interventions which even did not meet demands of those affected.

Financial education program was the only economic support which received mixed responses, including at least 4.13% of respondents who rated this with support as greater extent among all interventions. 44.62% and 41.33% of respondents perceived the support provided was of moderate and limited extents respectively. Based on weighted means, this support was regarded as moderate extent.

These findings shed light on the value of economic support provided by NGOs during cholera epidemic Micheweni district. It is evident that, there were variations in the extent of support across different aspects. Access to microfinance or credit facilities was reported as the most provided form of support, followed by financial education for better manage their finances. Other supports such as technical assistance, and training in income-generating activities, cash transfers and job creation support were provided to a lesser extent, suggesting limitations or challenges in delivering adequate assistance in these areas.

This suggests that the assistance provided may not have fully met the needs and expectations of the communities, further impeding their recovery. The study findings concur with Ndiao (2020) who indicated that, NGOs' community-based awareness and advocacy, mobilization of local resources, and primary healthcare programs have contributed to enhancing community livelihoods by promoting their attitudes and capacities to cope with disasters.

**Table 4.4: Quality of Economic Supports** 

Item (Did NGO provide you with)	Not at all	limited extent	moderate extent	great extent	Weighted Mean	Interpretation
Cash transfers or vouchers?	38 (31.4%)	46 (38.0%)	37 (30.6%)	0	1.45	Limited extent
Technical assistance and training in income-generating? activities,	35 (28.93%)	48 (39.67%)	38 (28.10%)	0	1.44	Limited extent
Access to microfinance or credit facilities?	41 (33.88%)	33 927.27%)	47 (38.84%)	0	1.59	Moderate extent
Business development support to SME?	34 (28.09%)	50 (41.33%)	37 (30.58%)	0	1.43	Limited extent
Support for job creation or employment opportunities?	28 (23.14%)	69 (57.02%)	24 (19.83%)	0	1.26	Limited extent
Financial education for better manage their finances?	12 (9.92%)	54 (44.62%)	50 (41.33%)	5 (4.13%)	1.55	Moderate extent

**Source:** Field data, 2023

#### **4.5.5** Economic Supports and Impacts

Respondents who reported receiving various forms of economic support during the cholera outbreaks were asked to assess how well these supports met their demands. The findings, presented in the figure below, indicate that nearly 70% of respondents felt that the support was insufficient to fully address their needs. While NGOs provided some level of assistance, it was inadequate for most respondents. As mentioned in the sociodemographic section, the majority of respondents are self-employed in small-scale income-generating activities such as fishing and farming, which typically do not provide substantial savings. As a result, during a cholera outbreak, their ability to work and earn an income was significantly limited. This forced them to rely heavily on the economic support provided by NGOs to meet their basic family needs. However, economic supports provided by NGOs could not cover all the population in need thus, resorting to giving small amount so that a large population can be supported.

Not sure, 9.90%

Partially met the demand, 20.70%

Did not meet the demand, 69.40%

**Figure 4.8: Extent of Economic Support Meeting Demands** 

**Source:** Field data, (2023)

When asked about why were NGOs supports did not meet the demand among people despite NGOs having conducted need assessments among affected households.

Various responses were given from the key informant interviews:

"Here in our neighborhood, experts who help people during disasters (NGOs)came and requested to meet groups of fishermen affected by Cholera outbreak. They managed to provide some fishing equipment like hooks and nets. After that they promised to return with more support such as engines and fishing boats. However, since they left, they have never returned." Sheha-2, Maziwangombe Shehia

Other key informant gave the following reply

"Right after experiencing Cholera outbreak, we received various victors including some from NGOs who came to provide assistance to help us continue with our farming activities. They provided us with agricultural inputs (seeds and fertilizers). However, after planting the weather was not favorable as the crops were affected by drought" Sheha-4, Kiuyu Shehia

"We are grateful for their assistance with what they provided, but even so, the amount they gave to the groups was not sufficient to meet capital needs especially for business activities" **Sheha-3 Chamboni Shehia** 

NGOs often struggle to meet the demands of cholera victims due to a lack of strategic plans and budgets dedicated to emergency response. When emergencies like cholera outbreaks occur, many NGOs attempt to reallocate funds originally set aside for regular activities to support affected communities. However, this approach is neither comprehensive nor sustainable in addressing the full scope of needs. These findings align with a study by Kermani et al. (2023) in Malawi, which highlighted how NGOs struggled to respond to emerging crises because their funds were already

allocated for other activities, leaving them unable to effectively address urgent emergencies.

#### 4.6 Challenges Experienced in Supporting Cholera Victims

## **4.6.1 Challenges Faced by Beneficiaries**

Respondents who received social and economic supports from different NGOs have indicated to have experienced several challenges.

#### 4.6.1.1 Health and Sanitation Barriers

Concerning Respondents faced several challenges in accessing social support, particularly related to health and sanitation. Over two-thirds of respondents (69.2%) reported that the water provided by NGOs, such as water trucks or bottled water, was not sustainable enough to meet their family's needs throughout the outbreak. This resulted in difficulties obtaining sufficient clean water and maintaining proper hygiene. Additionally, more than half of the respondents (54.6%) indicated a lack of hygiene supplies, such as soaps and water treatment chemicals like chlorine, due to delays or limited supplies from NGOs. Although these challenges did not have significant immediate effects, some individuals were re-infected as a result. Other challenges, such as insufficient training and the sharing of inconsistent information, were also noted, but reported by a smaller percentage of respondents.

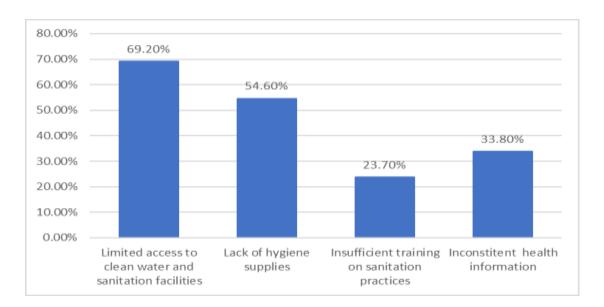


Figure 4.9: Health and Sanitation Barriers

Source: Field data, 2023

During an in-depth interview with one of key informants a similar observation was noted and agreed that these challenges caused some people to be re infected as the result.

"Yes, it is true that the ministry of health informed people to stop using water sources suspected contaminated with Cholera, while the government continue investigating the outbreak. People were advised to use water supplied by special car trucks or bottled water. However, distribution of this assistance was not effective, which lead some people to start re-using water from their previous water sources and this caused some to be reinfected" (PHAST team member).

## **4.6.1.2 Resource Distribution Challenges**

Resource distribution during emergencies had been a challenge noted in many other studies. Therefore, the researcher asked respondents in this study to indicate if they experienced this type of challenge. Findings obtained have shown that there have

been challenges of delay in distributing essential suppliers, limited quantity of supply provided, inaccessibility of resources due to logistical issues and unequal distribution of resources among cholera victims with each being reported in varying magnitudes. However, unequal distribution of resources has been reported by every six respondents out 10, indicating that, this was a significant challenge among them. This observation might have happened due to rumors that spread around the truth NGOs assistances provided in place and what has been provide in another group.

When asked heads of NGOs in in-depth Interview uttered the following while denying this claims.

"It's not true, because our organization was very involved in providing social and economic assistance to about three shehias, but in all the areas we went to, our assistance was the same" (Head of NGO-1)

#### Another participant said the following

"When an outbreak occurs, we look at the specific challenges facing the affected community and thus our assistance is aimed at solving the problems present in that particular community. So, I think it's just a matter of people not understanding the process" (**Head of NGO-3**)

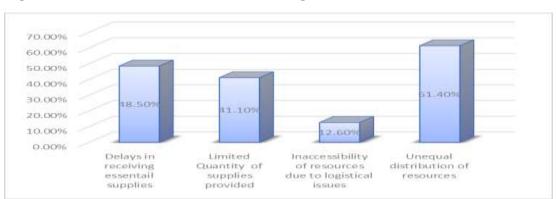


Figure 4.10: Resource Distribution Challenges

Source: Field data, 2023

#### 4.6.1.3 Economic Dependence

Concerning the challenge of economic dependence among respondents who received economic support during the cholera outbreak was evident. According to the data, 45% of respondents indicated that they were no longer engaged in income-generating activities, suggesting that the support they received led to a sense of economic reliance, where they felt they could remain idle without the need to work, as their families' basic needs were being met. Additionally, 25.2% of respondents reported losing their jobs due to temporary closures some areas prompted by the outbreak. This aligns with the Zanzibar Comprehensive Cholera Elimination Plan, which recommended closing off affected areas to contain the spread of the disease. Consequently, some activities, such as vegetable farming near rivers and water sourcing for businesses, were disrupted, particularly in areas where the outbreak was suspected to have originated.

The final challenge observed was the inability to afford basic needs once the support from NGOs ended. This issue seemed to stem from a lack of motivation to engage in income-generating activities, as many respondents had become reliant solely on the assistance provided by NGOs. This finding aligns with the report by Ngwa et al. (2020), which examined the impact of NGOs in Borno State, Nigeria, a region affected by insurgency since 2009, leading to significant loss of life and property. Their study highlighted the dual impact of NGOs in the region, with positive effects such as job creation, increased revenue generation, and food and cash subsidies, but also negative consequences, as many individuals became dependent on aid instead of engaging in productive work.

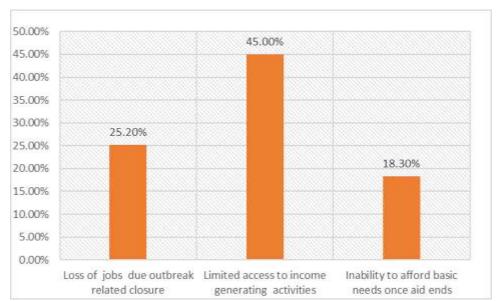


Figure 4. 11: Economic Dependence

Source: Field data, 2023

#### **4.6.2** Challenges Experienced by NGOs

NGOs faced major difficulties during the disaster response because of a lack of resources, particularly money and staff. In order to guarantee that assistance was given where it was most needed, rigorous prioritizing was necessary due to the limited and challenging access to resources. This restriction caused difficulty in giving comprehensive aid to the afflicted population in timely way. As one of the key informants complimented by saying the followings

"One of the biggest challenges is securing adequate funding in time. The needs are immediate and extensive but funding cycles and approval can take too long, leaving us making difficult choices with limited resources or ending up with unfulfilled promises" **Head of NGO-4** 

This challenge aligns with existing literature on NGO operations and their engagement in disaster response and recovery efforts. For instance, the issue of

limited resources is consistent with previous studies, which have emphasized that NGOs often face shortages in both financial and human resources during their disaster response efforts, as highlighted by Kimathi (2018). Additionally, the findings revealed that NGOs encountered significant challenges and barriers in coordinating and collaborating with other NGOs, government agencies, and community members during the cholera epidemic response.

These obstacles hindered the effectiveness of joint efforts, making it necessary for NGOs to take steps to address the issues. In particular, improvements were needed when delays occurred with key partners, to ensure the success and timeliness of the interventions.

"Effective response depends on collaboration with local authorities but there can be delay or inconsistencies in communications, especially in high stressed situation. We sometimes forced to adapt our plans based to real time changes or new guidelines" **Head of NGO -5** 

The geographical conditions and the rainy season presented significant challenges for NGOs in terms of transportation and logistics, making it difficult to reach remote areas lacking properly paved roads. As a result, NGOs struggled to access certain communities affected by the cholera epidemic. In some of these areas, there were no proper roads, which prevented vehicles carrying supplies from delivering aid to the affected populations. In other areas, although roads were available, the rainy season made it difficult for lorries carrying full loads of goods to pass through, causing delays in the delivery of crucial support.

"During the outbreak, accessing remote such as Mbuyuni Village in Kiuyu shehia was a major hurdle such as roads were impassable delaying the delivery of essential supplies like clean water, food and medical kits. It takes careful planning and coordination to get these resources delivered where they are needed" DHMT team member

"Many times, our cars carrying supplies stuck in muds because of heavy rain or due to poor road conditions in rural areas. We were forced to hire local motorcycles (bodaboda) to off load and carry supplies to where they were needed which of course added more costs" **Head of NGO-2** 

Similarly, when reflecting the 2014 Cholera outbreak in Sierra Leone, a study conducted by Shin, (2018). The study found that, among factors contributed to delayed control of Cholera cases were difficulties experienced to reach remote communities and some roads being blocked due to civil wars.

Ineffective communication with community members emerged as a significant challenge during the emergency response, largely due to cultural barriers. In Micheweni District, where communities are highly sensitive to gender dynamics, exposing women to large crowds is generally unacceptable. This cultural sensitivity posed a challenge for NGOs, particularly when trying to engage directly with women. To address these obstacles, NGOs implemented specific communication strategies that involved using men to relay messages. Additionally, local leaders and influential figures were engaged to facilitate communication between the NGOs and the community. For international NGOs, particularly those from Western cultures, navigating these cultural norms was especially challenging, as women in Islamic communities have specific expectations regarding dress and the types of issues they can address in the presence of men. This highlights a broader issue, as illustrated by

Tappis et al. (2020), who identified similar sociocultural barriers faced by NGOs in Yemen while delivering humanitarian assistance. These challenges show how deeply ingrained cultural norms can impact the effectiveness of NGO efforts in disaster response.

In relation to the theoretical framework, Collaborative Governance Theory is highly relevant to this study, as it emphasizes the importance of collaboration between various agencies and stakeholders. If fully implemented, this approach could have addressed many of the challenges reported by NGOs, such as limited funding, logistics, transportation difficulties, and sociocultural barriers. For instance, strong partnerships with donors and funders would have ensured that NGOs had sufficient resources to meet the needs of affected communities. Additionally, collaboration between NGOs and government bodies could have facilitated better coordination of NGO activities across different areas.

Regarding challenges related to communication and sociocultural norms, the Collaborative Governance Theory underscores the necessity of understanding and respecting the cultural and social values of the communities being served. NGOs are encouraged to adopt communication strategies that are culturally sensitive, allowing for more meaningful engagement with local populations. The theory further promotes active citizen participation and inclusive decision-making, integrating diverse perspectives to improve communication and responsiveness to the community's needs.

#### **CHAPTER FIVE**

#### SUMMARY OF FINDINGS AND DISCUSSION OF FINDINGS

#### 5.1 Introduction

This chapter presents of summary of key findings, conclusion, recommendations and area for further research. The study aimed to determine contributions and challenges faced by NGOs in addressing Cholera outbreak in Micheweni district, Pemba.

#### **5.2 Summary of Findings**

Findings obtained have been discussed in chapter four in relative to study objectives and their key highlights are as follows.

#### **5.2.1 Contribution of NGOs to Social Support**

The first specific objective of this study aimed to determine the social supports provided by NGOs during the Cholera outbreak in the communities of Micheweni District, Pemba. The study identified several types of social support that were delivered to the communities to varying extents, including clean water supply, sanitation facilities, hygiene education, medical equipment, healthcare services, food support, temporary shelter, psychological support, and information and education materials.

A total of six NGOs, both local and international, partnered with the government to ensure that all individuals in need received assistance. These NGOs included SOS Children Village, D-tree International, Save the Children, Action Aid, Milele Zanzibar Foundation, and Ifraj Foundation. Their primary method of communication

with beneficiaries was through community meetings, which proved to be a costeffective approach. International NGOs like Save the Children and Action Aid were key suppliers of most of these interventions, primarily due to their larger financial capacities.

Although not all individuals received equal support, certain interventions were delivered more extensively than others. Data analysis revealed that healthcare services were the most appreciated support, with nearly all individuals infected by Cholera receiving treatment. This was regarded as the most relevant form of support, with 33.9% of respondents identifying it as the most crucial intervention. On the other hand, respondents indicated that temporary shelter and a sustainable water supply were the areas where they felt the greatest lack, which they believed were necessary for ensuring quick recovery and healing.

#### **5.2.2 Contribution of NGOs to Economic Support**

The second objective was to determine the economic support provided to communities that experienced Cholera outbreaks. The study findings showed that respondents received varying levels of economic assistance, including cash transfers/vouchers, technical assistance and training in income-generating activities, access to microfinance, and business development support for SMEs, job creation or employment opportunities, and financial education for better financial management. However, this type of support was not as extensive as social support, as only three NGOs were identified as providers. This may be because social support was more urgently needed during the Cholera outbreak than economic assistance. The NGOs

that provided economic support included Milele Foundation, Ifraj Foundation, and SOS Children's Village. Among them, Ifraj Foundation was the leading provider, assisting over 70% of respondents, primarily by offering technical training in income-generating activities and financial education to improve financial management skills.

Despite the provision of economic support, the quality and extent of these interventions were not comprehensive. Only two types of support—access to microfinance and financial education—were rated as being offered to a moderate extent, while the rest were provided in limited amounts. Due to low coverage and insufficient supply, most respondents (69.4%) indicated that these supports did not fully meet their needs, with many being promised additional assistance that remained unfulfilled.

## **5.2.3** Challenges Experienced During Supply Of Supports

On this objective the researcher identified different challenges experienced by beneficiaries as well as NGOs during delivery of supports amid the emergency of Cholera. Respondents have indicated to have been experienced health and sanitation barriers which were resulted from various reasons including lack of sustainable water supply such wells or tape water. This challenge somehow dragged back rescue effort as some people went back to use contaminated water sources leading to re-infection of Cholera.

Resource distribution was another challenge noted from respondents whereas during the outbreak some areas especially in remote areas experienced delayed supply of various supports from NGOs due logistic issues and some places experienced unequal distribution of supports provided. This was largely caused by false rumors which spread from area to another especially when people in that place were given a different support. Lastly, Respondents experienced economic dependence particularly due to loss of jobs or lack of motivation to engage in income generating activities but remained depending on supports provided by NGOs. This made them experience struggles to cope with normal life style after the NGO supports have ended.

Likewise, NGOs also reported some challenges they experienced during their efforts to deliver supports to Victims of Cholera outbreaks in Micheweni. The notable challenge among many NGOs was lack or scarcity of resources to implement support to the need communities. Most NGOs rely to donors which when an immediate need arise such as cholera outbreak, many NGOs found it hard to find resources required on time. Some NGOs experienced logistic and transportation issues to reach communities located in remote areas due to road conditions, this resulted to failure of delivering essential supplies. Coordinating and collaborating with governmental agencies and other partners was reported as challenge contributed to delayed decision making.

#### **5.3** Conclusion

This study has examined the role of NGOs in responding to and supporting

communities during a cholera epidemic. The findings have provided insights into the social and economic support provided by NGOs, as well as the challenges they encounter in their efforts.

Regarding social support provided, the study found a number NGOs collaborated together and delivered a large number of various social supports which were delivered in different magnitudes among respondents. However, healthcare support was effectively delivered than all others contributed to control of the outbreak.

In terms of economic support, NGOs were moderately effective in providing access to microfinance or credit facilities, as well as financial education programs. However, there were variations in the extent of support across these dimensions.

A number of Challenges were experienced by NGOs including Limited resources such as funding and personnel which appeared as significant constraints. Other constraints were Coordination and collaboration barriers, Cultural and social norms, as well as logistic challenges, further complicated the response efforts.

Despite existence of some challenges, NGOs showed good responses to help the affected Communities in Micheweni during Cholera outbreak. This contributed to an immediate control of cholera cases and eventually prevention of further outbreaks. Their efforts remain as corner stones to what now is called "toward elimination of Cholera in the Island" since no significant Cholera outbreak had been experienced so far since the 2015-2016 outbreak.

#### **5.4 Recommendations**

Based on the findings obtained the study recommends the followings to be done, in order to have a better collaborative response on Cholera outbreak.

**Increasing Resource Allocation:** Efforts should be made to secure additional funding and personnel to address the challenge of limited resources faced by NGOs. This could involve seeking more partnerships with donors, government agencies, and other stakeholders to ensure sufficient resources are available for comprehensive assistance.

**Strengthening Coordination and Collaboration:** NGOs should establish stronger coordination mechanisms with other NGOs, government agencies, and community members. Regular meetings, information sharing, and joint planning sessions can enhance collaboration and avoid duplication of efforts. Building partnerships and networks can also improve the effectiveness of emergency responses.

Improving Communication Strategies: NGOs should develop culturally sensitive communication strategies that address the specific social and cultural norms of the Micheweni district. Engaging local leaders and influential individuals as mediators can help overcome communication barriers and ensure effective information dissemination to the affected communities.

**Enhancing Cultural Sensitivity:** NGOs should ensure their programs and interventions are culturally sensitive and respectful of local norms. By incorporating community input and adapting programs to match cultural and social practices, NGOs can better engage with the affected populations and gain their trust.

**Strengthening Logistic Systems:** Efforts should be made to improve logistic systems, including transportation, storage, distribution, procurement, staffing, and communication. This can involve establishing efficient supply chains, exploring partnerships with logistics providers, and implementing appropriate technologies for logistics management.

#### 5.5 Limitations of the Study

Despite appropriateness of the study in shading light on the contributions of NGOs in addressing cholera outbreak in Micheweni, Pemba, the study has some shortcomings as explained below:

Firstly, the study relied on retrospective data collected nearly a decade ago after the 2015-2016 cholera outbreak. As the result some respondents experienced some recall biases which could have affected the accuracy of the information collected particularly regarding specific supports and challenges experienced.

Secondly, these findings are geographically limited to Micheweni district in Pemba. This may restrict generalization of the findings to other districts in Zanzibar or Mainland Tanzania. This can be due to variation in severity of Cholera outbreaks and types of NGOs partners to support government initiatives in the context area.

Moreover, some NGOs which participated in the 2015-2016 Cholera outbreak had some information missing due to challenges related document keeping. On other hand, some NGOs do no longer exist in the district, making it hard to have a complete picture of the support provided by NGOs.

#### **5.6** Areas for Further Study

The following are potential areas to conduct similar studies in future:

Comparative Analysis: Conducting comparative studies across different regions or countries would allow for a broader understanding of the challenges faced by NGOs in emergency response efforts. Comparing different contexts and governance systems could provide insights into the contextual factors that influence the effectiveness of NGO interventions.

**Stakeholder Perspectives**: Exploring the perspectives and experiences of other stakeholders, such as community members, government officials, and NGO staff, would provide a more comprehensive understanding of the challenges and contributions of NGOs in emergency response. Incorporating multiple perspectives would enrich the analysis and capture a broader range of insights.

Organizational Capacity Building: Investigating strategies for strengthening the capacity of NGOs in emergency response could be a valuable area for further study. Understanding the organizational challenges faced by NGOs and identifying effective approaches for enhancing their capacity to deliver comprehensive assistance would contribute to more efficient emergency response efforts.

#### REFERENCES

- Adam, A. M. (2020). Sample Size Determination in Survey Research. *Journal of Scientific Research and Reports*, *June*, 90–97. https://doi.org/10.9734/jsrr/2020/v26i530263
- Amin, Md. R. (2024). Role of non-governmental organizations (NGOs ) in Disaster Response and Recovery Efforts: An Investigation in Bangladesh. *ASEAN Journal of Community Service and Education*, 3(1), 57–68. https://ejournal.bumipublikasinusantara.id/index.php/ajcse/article/view/475
- Amisu, B. O., Okesanya, O. J., Adigun, O. A., Manirambona, E., Ukoaka, B. M., Lawal, O. A., Idris, N. B., Olaleke, N. O., Okon, I. I., Ogaya, J. B., & Prisno, D. E. L. (2024). Cholera resurgence in Africa: assessing progress, challenges, and public health response towards the 2030 global elimination target. *Infezioni in Medicina*, 32(2), 148–156. https://doi.org/10.53854/liim-3202-4
- Ansell C& Gash A, (2007). Collaborative Governance in Theory and Practice. *Journal of Public Administration Research and Theory* 18(4) 543-571.
- Aung, T. M& Lim S, (2021). Evolution of Collaborative Governance in the 2015, 2016, and 2018 Myanmar Flood Disaster Responses: A Longitudinal Approach to a Network Analysis. *Int J Disaster Risk Sci* 12:267–280. https://doi.org/10.1007/s13753-021-00332-y
- Cambaza, E., Mongo, E., Anapakala, E., Nhambire, R., Singo, J., & Machava, E. (2019). Outbreak of cholera due to cyclone kenneth in northern Mozambique, 2019. *International Journal of Environmental Research and Public Health*, 16(16). https://doi.org/10.3390/ijerph16162925

- Das, N., & Kumar, R. (2016). Role of Non-Governmental Organizations in Healthcare Sector of India. MPRA Paper No. 79402, posted 30 May 2017 04:27 UTC. Online at https://mpra.ub.uni-muenchen.de/79402/
- Dureab, F., Jahn, A., Krisam, J., Dureab, A., Zain, O., Al-Awlaqi, S., & Müller, O. (2019). Risk factors associated with the recent cholera outbreak in Yemen:

  A case-control study. *Epidemiology and Health*, 41(March 2015), 1–6. https://doi.org/10.4178/EPIH.E2019015
- Elnaiem, A. D., Franke, M. F., Richterman, A., Guillaume, Y., Vissieres, K., Augustin, G. C., Ternier, R., & Ivers, L. C. (2023). Food insecurity and risk of cholera: A crosssectional study and exploratory analysis of potential mediators. *PLoS Neglected Tropical Diseases*, 17(2), 1–13. https://doi.org/10.1371/journal.pntd.0010574
- Graveline, M. H., & Germain, D. (2022). Disaster Risk Resilience: Conceptual Evolution, Key Issues, and Opportunities. *International Journal of Disaster Risk Science*, *13*(3), 330-341.https://doi.org/10.1007/s13753-022-00419-0.
- Global Task Force on Cholera Control (2019). *Cholera Outbreak Response: Field Manual.October*,26.http://www.who.int/cholera/publications/Cholera\_outbreak\_assessment.pdf
- Global Task Force on Cholera Control (2017) Ending Cholera-A Global Roadmap to

  2030. https://www.gtfcc.org/wp-content/uploads/2019/10/gtfcc-endingcholera-a-global-roadmap-to-2030.pdf
- Islam, R., &Walkerden, G. (2015). How to link between Households and NGOs Promote Disaster Resilience and Recovery?: A case Study of Linking Social

- Networks on the Bangladeshi Coast. *Natural hazards*, 78(3), 1707-1727. DOI 10.1007/s11069-015-1797-4
- Fallah, S. (2018). The Role of Non-governmental Organizations in Disaster Management: A case study of bam earthquake and Cholera outbreak, Iran. *Journal of Disaster and Emergency Research*, 1(1), 43-50.
- Kermani, F., Tia, S., & Reandi, A. (2023). Exploring the Funding Challenges Faced by Small NGOs: *Perspectives from an Organization with Practical Experience of Working in Rural Malawi*.
- Kigen, H. T., Boru, W., Gura, Z., Githuka, G., Mulembani, R., Rotich, J., Abdi, I., Galgalo, T., Githuku, J., Obonyo, M., Muli, R., Njeru, I., Langat, D., Nsubuga, P., Kioko, J., & Lowther, S. (2020). A protracted cholera outbreak among residents in an urban setting, Nairobi County, Kenya, 2015. *Pan African Medical Journal*, 36(127), 1–17. https://doi.org/10.11604/pamj.2020.36.127.19786
- Kimathi V. Z. (2018). The Contribution of International Non-governmental Organizations in Promoting Elderly-Friendly Health Services Delivery in Tanzania: A Case of Help Age International in Morogoro Municipality (
  Masters dissertation, The University of Dodoma). http://repository.udom.ac.tz/.
- Kothari, C. (2006). Research methodology, mehtods and techinques. New York: Willey Eastern Ltd.
- Massawe, E. G. (2017). The Contribution of Socio-Cultural Practices to the Outbreak of Cholera in Tanzania: A Case Study of Ukerewe

- District (Masters' dissertation, The University of Dodoma) http://repository.udom.ac.tz/.
- Mbwirire, J., John, M., & Naume, W. (2016). an Analysis of Cholera Interventions

  By Development Organizations in Harare Urban District From a Disaster

  Risk Reduction Perspective. an Analysis of Cholera Interventions By

  Development Organizations in Harare Urban District From a Disaster Risk

  Reductio. *African Journal of Science and Research*, 3(5), 25–32.

  http://ajsr.rstpublishers.com/
- Mondal, D., Chowdhury, S., & Basu, D. (2015). Role of Non-governmental Organization in Disaster Management. *Research Journal of Agricultural Sciences*, 6, 1485-1489.
- Ngingo, B. L., Mchome, Z. S., Bwana, V. M., Chengula, A., & Mwanyika, G. (2023). Socioecological systems analysis of potential factors for cholera outbreaks and assessment of health system's readiness to detect and respond in Ilemela and Nkasi district. 1–10.
- Ngwa, M. C., Wondimagegnehu, A., Okudo, I., Owili, C., Ugochukwu, U., Clement, P., Devaux, I., Pezzoli, L., Ihekweazu, C., Jimme, M. A., Winch, P., & Sack, D. A. (2020). The multi-sectorial emergency response to a cholera outbreak in Internally Displaced Persons camps in Borno State, Nigeria, 2017. BMJ Global Health, 5(1), 1–12. https://doi.org/10.1136/bmjgh-2019-002000
- Ndiao, E. O. (2020). Assessment of Programme activities Conducted by NGOs and their Impact towards Poverty Reduction in Kasipul Constituency, Homabay

- County, Kenya. European Journal of Education

  Studies..http://oapub.org/edu/index.php/ejes
- Obasa, A. E., Botes, M., & Palk, A. C. (2023). Collective responsibility during a cholera outbreak: The case of Hammanskraal. *South African Journal of BioethicsandLaw*, *16*(3),99104.https://doi.org/10.7196/SAJBL.2023.v16i3.1 250 Office of the Chief Government Statistician (2019). Zanzibar Statistical Abstract.
- Rebaudet, S., Dély, P., Boncy, J., Henrys, J. H., & Piarroux, R. (2021). Toward cholera elimination, haiti. *Emerging Infectious Diseases*, 27(11), 2932–2936. https://doi.org/10.3201/eid2711.203372
- Redae, G. A., Mengestu, T. K., Abdalla, F. M., Slim, S. N., Simon, V. T., Ali, A. O., Saguti, G. E., Habtu, M. M., Tegegne, S. G., Msambazi, M. J., & Zabulon, Y. (2023). Towards cholera elimination in Zanzibar: analysis of evidences on what have worked. *The Pan African Medical Journal*, 45(Supp 1), 6. https://doi.org/10.11604/pamj.supp.2023.45.1.39828
- Revolutionary Government of Zanzibar, The Second Vice President Office. (2012).

  Micheweni Emergency Preparedness and Response Plan (Meprp) Final

  Draft
- Revolutionary Government of Zanzibar, (2018): Zanzibar Comprehensive Cholera Elimination Plan (ZACCEP). 2018–2027
- Said, M. D., Funke, N., Jacobs, I., Steyn, M., & Nienaber, S. (2011). The case of cholera preparedness, response and prevention in the SADC region: A need for proactive and multi-level communication and co-ordination. *Water SA*, 37(4), 559–566. https://doi.org/10.4314/wsa.v37i4.15

- Shin, Y. A., Yeo, J., & Jung, K. (2018). The Effectiveness of International Non-governmental Organizations' Response operations during Public Health Emergency: Lessons Learned from the 2014 Ebola Outbreak in Sierra Leone. *International journal of environmental research and public health*, 15(4),650doi:10.3390/ijerph15040650.www.mdpi.com/journal/ijerph
- Sun, X. (2017). Research and Prospect of Collaborative Governance Theory. *Public Policy and Administration Research*, 7(7), 4.
- Tappis, H., Elaraby, S., Elnakib, S., AlShawafi, N. A. A., BaSaleem, H., Al-Gawfi, I.
  A. S., ... & Spiegel, P. (2020). Reproductive, Maternal, Newborn and Child health Service Delivery during Conflict in Yemen: a case study. *Conflict and health*, 14, 1-16. https://doi.org/10.1186/s13031-020-00269-x
- Tucktuck, M., Darkhawaja, R., Areqat, T., Mansour, S., Giacaman, R., & Hamdan, M. (2017). The Role of Non-governmental Organizations in the Health sSctor in the Occupied Palestinian Territory: A Cross-sectional Qualitative Study. *The Lancet*,390,S29.https://doi.org/10.1016/S0140-6736 (17)32080-9
- Woong, L. D. (2019). Collaboration and performance in disaster and emergency management: Focusing on South Korea. *International Journal of Disaster RiskReduction*,35(January),101116.https://doi.org/10.1016/j.ijdrr.2019.1011
- World Health Organization (2017). Weekly epidemiological record
- World Health Organization (2023). *Public health surveillance for cholera*. *February*. https://www.gtfcc.org/wp-content/uploads/2023/02/gtfcc-public-health-surveillance-for-cholera-interim-guidance.pdf

- World Health Organization -African Region (2024). Cholera in the WHO African regions Monthly regional cholera bulletin. *Data reported: As of 31 July 2024 Situation update*
- Yagub, A. I., & Mtshali, K. (2015). The Role of Non-governmental Organizations in Providing Curative Health Services in North Darfur State, Sudan. *African healthsciences*, *15*(3),10491055.DOI: 10.4314/ahs.v15i3.48.https://citeseerx.ist.psu.edu/

# **APPENDICES**

# APPENDIX 1: QUESTIONNAIRE

Contribution of Non-government Organizations in responding to cholera
epidemics in Micheweni district Pemba
This questionnaire is targeting beneficiaries supported by NGOs during cholera
epidemic period in 2015/2016 in Micheweni district, Pemba
My name is ( I am a colleague/friend/ to one
studying at the Open University of Tanzania. Please, can I talk to you/ can you fill
this questionnaire.
The purpose of this study is to get information in your household regarding to social
and economic support provided by NGOs during cholera epidemic erupted in
2015/2016 in Zanzibar and Micheweni district in particular
This study is free from duress and information you give will be kept confidential; it
will not be released to whoever. The information you give will be used to prepare a
scholarly report which does not mention any name of the respondent. Therefore, in
no way can any person know that you gave such information.
Therefore, I request your time (of about 20 minutes) for this study/interview.
If one has agreed check the box. By tick $\lceil \sqrt{\rceil}$

Please do not suggest in any way that the results of the study will lead to getting any

provisions because it will bias the study results.

# **Section A: Demographic Information**

1. Your age:
() Less than 20
-()20-29
-()30-39
- ( ) 40-49
() 50-60
() greater than 60
2. Gender:
- ( ) Male
-() Female
3. Education level:
- ( ) No formal education
- ( ) Primary education
- ( ) Secondary education
- ( ) Vocational training
- ( ) Higher education
4. Shehia's Names:
- ( ) Majenzi
- ( ) Chamboni
-() Kiuyu
() Maziwang'ombe
() Mjini wingi
5. Occupation:
- ( ) Government
- ( ) Farmer
- ( ) Fishermen
- ( ) Business
() Small Entrepreneur
() Others

# Section B: Social supports provided

6. How did you first hear about the NGO programs?
- ( ) Community meetings
- ( ) Printed materials
- ( ) Media (radio, TV, social media)
- ( ) House visit
- ( ) Online
7. Which types of social support did you receive from the NGO? (Select all applies)
- ( ) Information and education materials
- ( ) Psychosocial
- ( ) Temporary Shelter
- ( ) Other Healthcare service
- ( ) Medical and equipment supplies
- ( ) Hygiene education
- ( ) sanitation and hygiene kits
- ( ) Clean waters
8. From which NGO did you receive the above supports
- ( ) SOS Children Village
- ( ) D-Tree International
- ( ) Save the Children
- ( ) Action aid
- ( ) Ifraj Foundation
- ( ) Milele Zanzibar Foundation
9. Which type of social support did you receive from the following NGOs
- ( ) SOS Children Village
- ( ) D-Tree International
- ( ) Save the Children

- ( ) Action aid	
- ( ) Ifraj Foundation	
- ( ) Milele Zanzibar Foundation	

10. Please rate the adequacy of following Social provided to you by ticking to the level of support

Support provided	Not at All	Limited Extent	Moderate Extent	Great Extent
Clean water sources,				
Sanitation facilities such as latrines and hand washing				
Hygiene education				
Medical equipment, and personnel support				
Healthcare services				
Food support				
Temporary shelter or housing				
Psychological support				
Information and education materials				

1. Which of the following socia	l supports provided to	you was the most help	pful?
---------------------------------	------------------------	-----------------------	-------

- ( ) Information and education materials
- ( ) Psychosocial
- ( ) Temporary Shelter
- ( ) Other Healthcare service
- ( ) Medical and equipment supplies
- ( ) Hygiene education
- ( ) sanitation and hygiene kits
- ( ) Clean waters

12. Which social supports did you lack?
- ( ) Information and education materials
- ( ) Psychosocial
- ( ) Temporary Shelter
- ( ) Other Healthcare service
- ( ) Medical and equipment supplies
- ( ) Hygiene education
- ( ) sanitation and hygiene kits
- ( ) Clean waters
Section C: Economic Supports provided by NGOs during 2015-2016 Cholera
outbreak.
13. From which NGO did you receive economic supports (tick all applies)
- ( ) SOS Children Village
- ( ) D-Tree International
- ( ) Save the Children
- ( ) Action aid
- ( ) Ifraj Foundation
- ( ) Milele Zanzibar Foundation
( ) Others
14. Which of the following economic supports did you receive
- ( ) Cash transfer/ Voucher
- ( ) Technical training in income generation
- ( ) Access to microfinance/credit
- ( ) Business development support
- ( ) Support for job creation /employment opportunities
- ( ) Financial education for better management of finance
() Others
15. Please rate the adequacy of following economic supports provided to you by

ticking to the level of support

Economic support	Not at all	limited extent	moderate extent	great extent
Cash transfers or vouchers?				
Technical assistance and training in income-generating? activities,				
Access to microfinance or credit facilities?				
Business development support to sme ?				
Support for job creation or employment opportunities?				
Financial education for better manage their finances?				

employment opportunities?				
Financial education for better				
manage their finances?				
16. Did the economic support provided	l meet you	r demands	?	
() Fully met demands				
- ( ) Partially met demands				
- ( ) Didn't meet demands				
- ( ) Not sure				
Section D: Challenges experienced du	ıring NG(	) supports	3	
17. Which type of the following health	and sanitat	tion challer	nges did you	experience
- ( ) Limited access to clean water and	d sanitatior	n facilities		
- ( ) Lack of hygiene supplies				
- ( ) Insufficient training and sanitation	n practice			
- ( ) Inconsistent health information				

18. Which type of the following Resource distribution challenges did you experience

- () Limited quantity of supplies
- ( ) Delay in receiving supplies
- ( ) Inaccessibility of resources due logistic issues
- ( ) Unequal distribution of resources

- 19. Which type of the following economic dependence challenges did you experience
  - () Loss of job
  - ( ) limited access to income generation
  - ( ) Inability to afford basic needs once aids ended

#### **Appendix II: Key Informants Interview Guide**

Micheweni district during the period.

#### Introduction

During emergency response such as cholera epidemic various organizations and stakeholders, including non-governmental organizations (NGOs), government agencies, and community members, work together to provide support to affected populations. However, emergency response often presents numerous challenges that may hinder the effective delivery of support to those in need. The aim of this KII interview is to gather information on challenges encountered NGOs during cholera epidemic response in Micheweni district for period 2015-2016 cholera epidemic Please provide detailed answers to each question based on your experience and expertise in challenges experienced NGOs on cholera response and support in

Which explain better of your appropriate	_	tion? Tick	Gender		
Head of NGOs	<del>-</del>				
DIDAT					
DHMT Member of PHAST team					
Member of FHAS1 team					
Local leader (sheha)					
Expected challenges	Question	ıs			
Limited resources:	<ul> <li>How did the limited resources, such as funding and personnel, impact your ability to provide support during the emergency response?</li> <li>Were there any specific resources that were particularly scarce or difficult to obtain?</li> <li>How did you prioritize the use of limited resources to ensure that support was provided where it was most needed?</li> </ul>				
2. Coordination and collaboration:	<ul> <li>How did you coordinate and collaborate with other NGOs, government agencies, and community members during the emergency response?</li> <li>Were there any challenges or barriers that hindered coordination and collaboration?</li> <li>What steps did you take to address these challenges and improve coordination and collaboration?</li> </ul>				
3. Communication barriers	<ul> <li>Did common How to en</li> <li>Did controls</li> </ul>				
4. Limited access to affected areas:	<ul><li>areas</li><li>How suppo</li><li>Were</li></ul>	Were there any challenges in accessing the affected areas during the emergency response?  How did you address these challenges to ensure that support was provided where it was needed?  Were there any areas that were particularly difficult to access, and if so, why?			
5. Cultural and social norms:	<ul><li>the comr</li><li>Were your</li><li>What</li></ul>	the cultural and social norms of the affected communities?			
6. Logistic	Distr Com • How there	ibution, munication) c did those ch	nallenges addressed and ensure that and required logistics for effective		

### Appendix iii: Research Clearance Letter

# THE UNITED REPUBLIC OF TANZANIA



MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

# THE OPEN UNIVERSITY OF TANZANIA



Ref. No OUT/ PG201986526

26th June, 2023

District Commissioner,

Micheweni District,

P.O.Box 50,

PEMBA.

Dear District Commissioner,

# RE: RESEARCH CLEARANCE FOR MR. MOH'D ABDALLA RASHID. REG NO: PG201986526

- 2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1<sup>st</sup>March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1<sup>st</sup>January 2007. In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.
- 3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief

94

background, the purpose of this letter is to introduce to you Mr. Moh'd Abdalla Rashid,

Reg. No: PG201986526) pursuing Master of Humanitarian Action, Cooperation and

Development (MHACD). We here by grant this clearance to conduct a research titled

"Contribution of Non-Government Organizations in Responding to Cholera

Epidemics in Micheweni District Pemba". He will collect his data at your office from

27th June to 30th July 2023.

In case you need any further information, kindly do not hesitate to contact the

Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409,

Dar es Salaam. Tel: 022-2-2668820.We lastly thank you in advance for your assumed

cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA

Muneare

Prof. Magreth S.Bushesha

For: VICE CHANCELLOR

# Appendix IV: Permission letter for data Collection in the field.



# SERIKALI YA MAPINDUZI YA ZANZIBAR WIZARA YA AFYA TIMU YA USIMAMIZI WA AFYA YA WILAYA MICHEWENI (DHMT) S.L.P 304 CHAKE CHAKE, PEMBA

27/06/2023

Mkuu wa Wilaya

Micheweni -Pemba.

# YAH: RUHUSA YA KUKUSANYA TAKWIMU KATIKA SHEHIA YAKO

Timu ya Usimamizi wa Afya ya Wilaya Micheweni (DHMT) inapenda kukujulisha kuwa Bw. Moh'd Abdalla Rashid (Reg. No: PG201986526), mwanafunzi wa Shahada ya Uzamili katika Humanitarian Action, Cooperation, and Development (MHACD), amepata ruhusa ya kufanya utafiti wake wenye kichwa cha habari "Mchango wa Mashirika Yasiyo ya Kiserikali katika Kukabiliana na Milipuko ya Kipindupindu katika Wilaya ya Micheweni, Pemba."

Kwa mujibu wa utafiti wake, ataweza kukusanya takwimu katika Shehia yako kuanzia tarehe 27 Juni hadi 30 Julai 2023. Tunakuomba utoe ushirikiano wa kutosha ili kuwezesha utafiti huu kufanyika kwa ufanisi na kwa kufuata taratibu, miongozo, na maadili ya utafiti.

Ikiwa kuna maelezo yoyote yanayohitajika, tafadhali wasiliana na ofisi yetu kwa maelezo zaidi.

Wako katika ujenzi wa Taifa

OMAR MOH'D OMAR /DMO-Wilaya ya Micheweni

Nakla kwa,

Sheha- Majenzi, Chamboni, Shanake, Kiuyu, Maziwang'ombe, Mjini Wingwi