

**IMPLEMENTATION OF ZANZIBAR OCCUPATIONAL SAFETY AND HEALTH
POLICY IN MANUAL STONE CRUSHING SITES AT
MICHEWENI DISTRICT**

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**MSc Project Management Monitoring Evaluation in Health
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POLICY IN MANUAL STONE CRUSHING SITES AT
MICHEWENI DISTRICT**

By

Abdul Rahim Mohamed Suleiman

**A dissertation submitted to the school of public health in (partial) fulfilment of the
requirements for award of the degree of Master of Science of project management
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October, 2021**

CERTIFICATION

The undersigned certify that he has read and hereby recommend for acceptance by the Muhimbili University of Health and Allied Sciences (MUHAS), a dissertation entitled “**Implementation of Zanzibar Occupational Safety and Health Policy in manual Stone Crushing Sites at Micheweni District**” in (partial) fulfillment of the requirements for award of **MSc Project Management Monitoring Evaluation in Health at The Muhimbili University of Health and Allied Sciences (MUHAS)**.

Dr. Hussein Mohamed

(Supervisor)

Date

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I, Abdul Rahim Mohamed declare that this dissertation is my own original work and it has never been presented and will not be presented to any other University for a similar or any other degree award.

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DEDICATION

I dedicate my dissertation work to my beloved family, my father and my mother for their moral and material support in my educational life.

TABLE OF CONTENTS

CERTIFICATION.....	i
DECLARATIONANDCOPYRIGHT	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
LIST OF ABBREVIATION AND ACRONYMS	ix
DEFINITIONS OF KEY TERMS	x
ABSTRACT	xi
CHAPTER ONE.....	1
INTRODUCTION	1
1.0 Background.....	1
1.1 Statement of the problem.....	3
1.2 Rationale of the study	3
1.3 Conceptual framework.....	4
1.4 Main evaluation question.....	6
1.5 Specific questions	6
1.6 Main Evaluation Objective	6
1.7 Specific Evaluation Objectives	6
CHAPTER TWO.....	7
LITERATURE REVIEW	7
2.0 Acceptability of Occupational Health and Safety Services in the Informal Service Sector	7
2.1 Measures Taken By Government To Promote Awareness Of Occupational Health And Safety Policy In Informal Sectors.....	9
2.2 Stakeholders Awareness On Occupational Health And Safety Policy In Informal Sectors	11

2.3	Challenges facing manual workers and their effect on OSH policy implementation	13
-----	--	----

CHAPTER THREE..... 15

METHODOLOGY 15

3.0	Research Design.....	15
-----	----------------------	----

3.1	Study Area	15
-----	------------------	----

3.2	Evaluation approach	17
-----	---------------------------	----

3.3	Targeted Population.....	17
-----	--------------------------	----

3.4	Selection of participants	17
-----	---------------------------------	----

3.5	Sampling method.....	18
-----	----------------------	----

3.6	Data Collection Methods	18
-----	-------------------------------	----

3.7	Data Collection Instruments/tools	19
-----	---	----

3.8	Recruitment of research assistants and training	20
-----	---	----

3.9	Pre-testing of the tools.....	20
-----	-------------------------------	----

3.10	Data collection, processing and analysis	20
------	--	----

3.11	Data management	21
------	-----------------------	----

3.12	Ethical issues	22
------	----------------------	----

3.13	Study limitations and mitigation plan:-	23
------	---	----

CHAPTER FOUR 25

STUDY FINDINGS 25

4.0	Introduction	25
-----	--------------------	----

2.	Measures taken by Government officers in occupational health and safety department to promote occupational health and safety policy in informal sectors in Zanzibar.	28
----	---	----

3.	The acceptability of Occupational health safety Policy by owners and workers in manual stone crushing sites as a tool towards its implementation in stone crushing sites	31
----	--	----

4.	The challenges facing workers working in manual stone crushing site at Micheweni District and their effects in OSH policy implementation	32
----	--	----

CHAPTER FIVE 37

DISCUSSION..... 37

5.0 Awareness of stakeholders in stone crushing sites on Occupational Health and Safety Policy issues	37
5.1 Measures taken by Government officers in occupational health and safety department to promote occupational health and safety policy in informal sectors in Zanzibar	38
5.3 The challenges facing workers working in manual stone crushing site at Micheweni District and their effect in OSH policy implementation	40
CHAPTER SIX	41
CONCLUSION AND RECOMMENDATIONS	41
6.0 CONCLUSION	41
6.1 RECOMMENDATIONS	42
6.1.1 Training and Education	42
6.1.2 Involvement of Stakeholders	42
6.1.3 Conduct regular supervision and inspection	43
6.1.4 Research and evaluations	43
REFERERENCES	44
Appendix I: Key informant interview Guide English Version	48
Part II: interview questions to the Government Officer from OHS department	48
Appendix II Muongozo wa mahojiano kwa lugha ya Kiswahili	50
Appendix III	53

LIST OF TABLES

Table 1: data collection tools17
Table 2: Demographic characteristics of participants25

LIST OF FIGURES

Figure 1: Conceptual Framework (Source: Author’s Construct 2020).....5
Figure 2: A map of Micheweni District, source (32).16

LIST OF ABBREVIATION AND ACRONYMS

ILO	-International Labour Organization
MUHAS	-The Muhimbili University of Health and Allied Sciences
OHS	-Occupational Health and Safety
WHO	- World Health Organization
OSH	-Occupational Safety and Health
PPE	-Personal Protective Equipment
OSHA	-Occupational Safety and Health Authority
KII	-Key Informant Interview
FGD	-Focus Group Discussion

DEFINITIONS OF KEY TERMS

Policy The term policy can be defined as a set of decisions or non-decision taken by those in charge of a particular area such as an organization or institution. Health policy takes account of all actions or intended actions by private or voluntary organizations that affect health. Walt described health policy as *“Health policy is about process and power ... it is concerned with who influences whom in the making of policy, and how that happens”*(1)(2).

OSH Occupational health and safety (OSH) is generally defined as the science of the anticipation, recognition, evaluation, and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment (3).

According to the International Labor Organization (ILO), Occupational health and safety is a discipline with a broad scope involving many specialized fields, in its broadest sense, it should aim at: The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; The prevention among workers of adverse effects on health caused by their working conditions; The protection of workers in their employment from risks resulting from factors adverse to health (4).

OHS policy a written occupational health and safety document that helps to promote effective OHS practices in workplaces. Such a policy should reflect the special needs of the workplace and should be regularly reviewed and updated (5).

Informal Employment

Informal employment is a type of employment that is not bound by actual arrangements. An alternative definition uses job security as a measure of formality, defining participants in informal employment as those who do not have employment or work security, and thus go without social security (6).

Occupational work-related activities (7).

ABSTRACT

Background: stone crushing activities are among potentially risky human activities. Most of the causes of accidents at stone crushing activities are rock falls, the use of poorly maintained equipment, noncompliance on safety practices and lack of proper protective equipment. Failure to comply with health and safety measures exposes the stone crushers to accidents such as erosion, suffocation, poisoning, and explosion, to name but a few.

Objective: This study is designed to evaluate the implementation of Zanzibar occupational safety and health policy on the informal sector, a case study of manual stone crushing at Micheweni district, Pemba., Tanzania.

Methodology: The study used an exploratory cross-section design employing qualitative methods in data collection. Qualitative data was collected by using an in-depth interview guide. Data collection was done from 1st January 2021 to 15th January 2021. A purposive sampling method was used to select participants in this study. The sample size was based on the principle of the saturation level of the information collected. The thematic analysis approach was used to analyze qualitative data.

Results; this study revealed that the Zanzibar occupational health and safety policy of 2017 is not implemented as expected. This is due to the fact that manual stone crushers, supervisors and site officials are not aware of it. Results also indicated that manual stone crushers rely on knowledge passed down through ‘oral tradition’ from ancestors, and use out-dated technology. The government and other stakeholders have not done enough to educate stone crushers on Occupational Health and Safety issues

Conclusion: Lack of communication between policy makers and implementers has been identified as the reason why stakeholders are not aware of OHS policy. On the other hand, there are on-going activities trying to achieve the policy objective. Based on the findings, the study recommended that more effort be put into educating all stakeholders on Occupational health and safety Policy.

CHAPTER ONE

INTRODUCTION

1.0 Background

Since the early 1970s, the informal sector has been the focus of international discussions on economic development. The International Labour Organization has played a major role in understanding the phenomenon and in formulating policies governing the sector. Their traditional policy adopted a positive and integrated approach: it combined the promotion of productive potential, employment in the sector and the improvement in the welfare of the groups through the establishment of appropriate protective measures (8).

Despite its growing contribution to employment, implementation of occupational health and safety policies in the informal sector is lacking. The growth in the informal sector and medium enterprise sectors is an international phenomenon that has been produced by globalization. These sectors are becoming a sizable portion of the economy in the developed world, and range from 50% to 80% of the economy in developing countries (9).

The percentage of all workers in the world with access to occupational health services is estimated to range from 10 to 20%. Certain groups of workers, including health care workers, are more exposed to occupational health risks (10).

In Asia, efforts in promoting occupational health services have also been geared towards the informal economy. A good example is in Thailand whereby informal economy workers, such as home workers, street vendors, workers in small construction sites, and self-sustained farmers, account for a large proportion of workers. This has provided a good model for many other countries that needs an established workplace OHS in place for the informal economy (4).

In Tanzania mainland and Zanzibar several efforts were made by the government to care about the health and safety of the employees. Due to that several legislations were enacted to protect the employees against any dangerous environment they were working within. Such legislations are such as: The Factories (Building Operations and Works of Engineering Construction) Rules

of 1985, The Woodworking Machinery Rules, 1995, The Factories (Electricity) Amendment Rules, 1985, The Factories (Occupational Health Services) Rules, 1985, Workman's Compensation Ordinance, 1949 and The Factories (Occupational Health Safety Services Fees) rules, 2001(8) Occupational Safety and Health Tanzania Profile.

Zanzibar government established the Labor Court known as DHU (Dispute Handling Unit) which is the Division of the High Court of Zanzibar so as to promote the labour rights and OSH issues. Despite these initiatives, occupational safety and health in Zanzibar is still a serious problem and the workers in all sectors are affected due to the poor implementation of policies and regulations (National audit office tanzania, 2013).

In the northern region of Pemba, informal sector workers have been found working in a hazardous environment, and most of them are not aware of the health and safety issues. The Operation of stone crushing areas expose workers to physical, chemical, and biological hazards emanating from various sources. It is through these threats that the Revolutionary Government of Zanzibar established policies and laws to ensure the health and safety of the workers in all sectors. The Occupational Health and safety act of 2005 makes provisions for the safety, health, and welfare of persons at work. It also provides provisions for the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work (12).

According to (13), there is also an acute shortage of OHS training programs. The institutes of Public Health are struggling to promote awareness in OHS policy and occupational health programs: it is estimated that the proportion of workers who receive comprehensive training OHS in the sector is likely to be constituted by not more than one to two percent of workers even being found in the organized informal sector (14).

1.1 Statement of the problem

The presence of insufficient safety health standards and environmental hazards are particularly evident in the case of the informal sector. Low standard working environment and often very unsatisfactory welfare facilities can be found within the working places. Also, practically nonexistent occupational health services are causing large human and material losses which burden the productivity of national economies, impair general wellbeing and the quality of life of informal workers and their families. The protection of the health of informal sector workers is a challenge that should be faced with an integrated approach to health promotion, social protection, and quality employment creation and has, therefore, to be part of a strategy to improve the basic living conditions of the workers in the informal sector (13).

Zanzibar adopted occupational health and safety policy in 2017 which focuses on improving health and safety in working places in the formal and informal sectors. Factors facilitating the implementation of the policy are awareness of the policy by supervisors of working places, workers' awareness of the policy, Government official's awareness of the policy, measures taken by Government, Non-Governmental organization, owners, and workers in improving health and safety in working areas (15).

Although many studies evaluate formal sectors, little is known about the implementation of the policy in the informal sector in Zanzibar: there is a need to explore the implementation of occupational health and safety policy in informal sectors. Therefore, this study evaluated the policy implementation in informal sectors specifically at the manual stone crushing sites at Micheweni District to cover gaps, validate existing data, enlighten earlier unmapped areas and produce more reliable estimates. The aim is to improve policy implementation in informal sectors and propose preventive and control measures against accidents and diseases in the informal economy.

1.2 Rationale of the study

Information on occupational accidents is not standardized worldwide. Most informal sectors in developing countries do not have reliable information on their occupational accidents due to lack of strategies in policy implementation and proper recording and notification systems (16).

This study will provide a basis for the formulation of effective occupational health and safety strategies for the implementation of OHS in informal sectors as per objectives. The results will help the legal formulation and enforcement that will reduce workplace injuries at informal sectors and improve the wellbeing of workers and their families.

1.3 Conceptual framework

The implementation process of OHS policy includes a tripartite system that includes the government, employer, and employee. From Figure 1 the foremost components are the acceptability and awareness of the OHS policy by government, employers, and employees. The roles of government part to be assessed in this study are: first availability of Human Resources for occupational inspection to the informal sectors, second government abiding by financial commitments by providing a specific budget for follow up and supervision of informal sectors in binding with the OHS policy as well as funding research and studies concerning the OHS policy implementation in all sector and the one third is the monitoring of the OHS policy implementation. One major role of employers or owners of stone crushing areas in providing occupational health and safety equipment the safety gears to the workers as per OHS policy suggests.

The last component to be assessed is the factors affecting the implementation process of OHS policy which might include organizational, political, legal, technical, and individual factors originating from external or internal the Micheweni district. Organizational factors are such as guidelines, policies, and laws. For example, when a country undergoes significant changes in its laws and policies, this will affect the implementation of the OHS policy as well. Technical factors are such as presence/absence of expertise on performing roles as agreed. This will affect the implementation of the OHS policy. Individual factors such as motivation, perception, and attitude of implementers on OHS policy itself and performing agreed on roles. All these factors together or separately form frameworks for contractual and organizational arrangements.

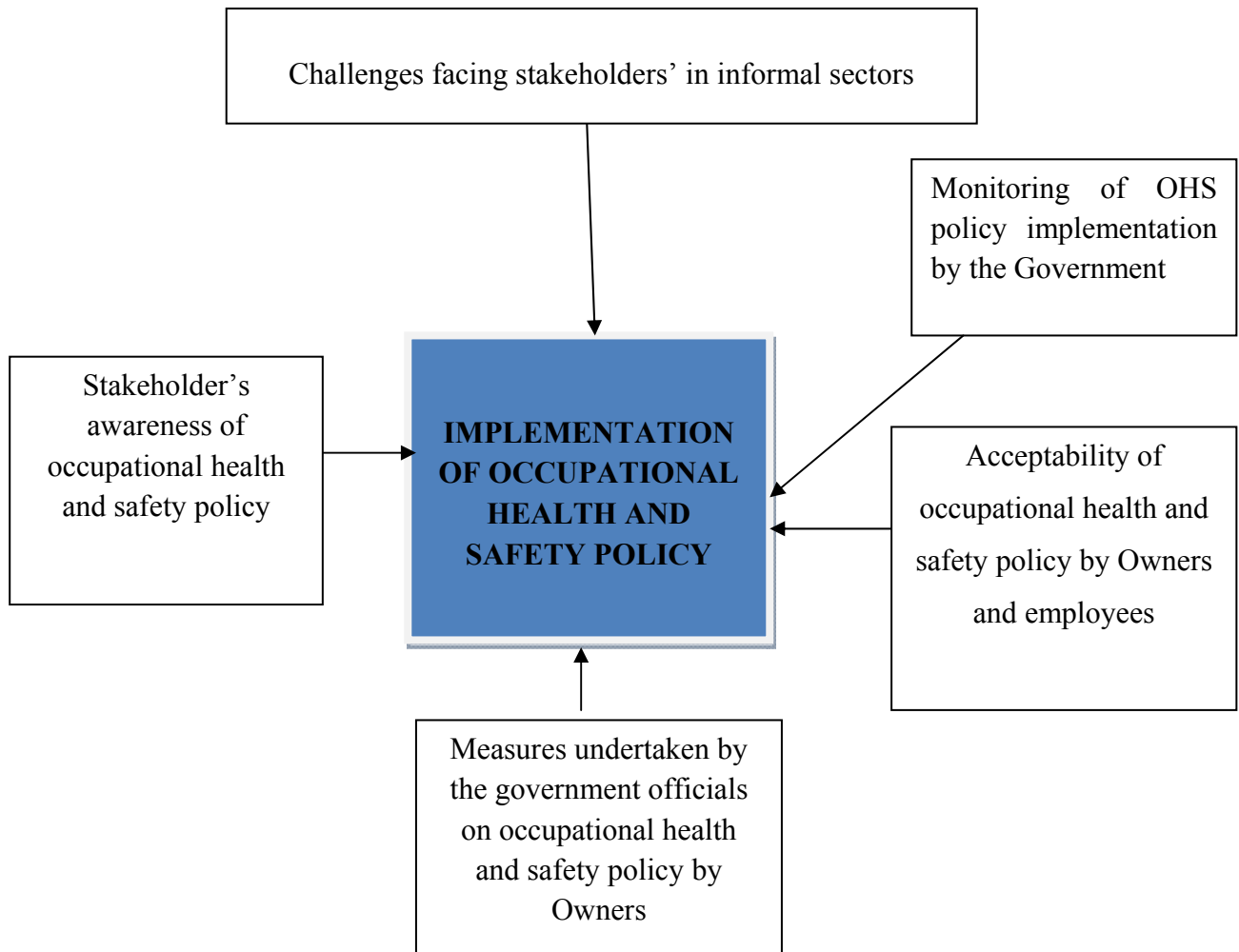


Figure 1: Conceptual Framework (Source: Author's Construct 2020)

1.4 Main evaluation question

How are the occupational health and safety policy implemented in informal sectors at the manual stone crushing sites in Micheweni District, Pemba?

1.5 Specific questions

- 1) Are the stakeholders working in manual stone crushing sites in Micheweni District aware of Occupational Health and Safety Policy issues?
- 2) How is occupational health and safety policy accepted in manual stone crushing sites as a tool towards its implementation in Micheweni District?
- 3) What are measures taken by the Government to promote awareness of occupational health and safety policy in informal sectors in Micheweni District?
- 4) How are the challenges facing manual workers at Micheweni stone crushing sites affecting implementation of the occupational health and safety policy?

1.6 Main Evaluation Objective

To evaluate the implementation of Occupational Health and Safety Policy in manual stone crushing sites at Micheweni District.

1.7 Specific Evaluation Objectives

- 1) To explore the awareness of stakeholders in stone crushing sites on Occupational Health and Safety Policy issues.
- 2) To explore the acceptability of Occupational health safety Policy in manual stone crushing sites as a tool towards its implementation at Micheweni District.
- 3) To explore measures taken by the Government to promote awareness of occupational health and safety policy in informal sectors in Micheweni District.
- 4) To explore the challenges facing manual workers at Micheweni stone crushing sites and how they affect implementation of the occupational health and safety policy.

CHAPTER TWO

LITERATURE REVIEW

2.0 Acceptability of Occupational Health and Safety Services in the Informal Service Sector

The occupational safety and health policy define the goals for the occupational health and safety work in the workplace and for activities that promote the working capacity of the staff. The policy also describes occupational health and safety responsibilities and the way of organizing the cooperation measures. The preparation of the occupational safety and health policy is based on the Occupational Safety and Health Act. The policy is employer-specific and applies to all employers (13).

The contents of the occupational safety and health policy and the goals set for occupational health and safety work are based on the assessment of workplace hazards and risks. Also, the workplace survey made by the occupational health care services provides information on health hazards caused by the work and working conditions (17).

Workers in the informal sector are often facing various problems affecting the economic growth of their countries. One of the major problems is that informal sector workers are provided with unsuitable occupational health and safety (OHS). Workplaces working in poor standard working conditions and are exposed to various hazards without proper knowledge concerning the use of personal protective equipment (PPE). Moreover, informal sector workers lack the necessary health information.

A focus on health and safety in the workplace is very important for ensuring that people are not harmed during work time. Ensuring that people are not injured at workplaces can extend the productive working lives of employees and contribute to economic growth. The benefits of promoting occupational health and safety include enabling people to lead happier and longer lives, enhancing economic activity, reducing demand for health and social services, and reducing the costs of illness and injury on both individuals and communities (18).

According to the European Agency for Safety and Health at work,(19) the health of adults of working age affects economic and social development. Recent occupational health data indicate that 40%-50%, of the world population is exposed to hazardous conditions in the workplace. It is estimated that approximately 250 million occupational accidents occur worldwide each year, with 335,000 fatalities (4). Hazards at work are in different forms –chemical, physical, biological, psychological, and ergonomics. More than 4% of the world's annual GDP is lost to occupational accidents and disease. Most of the workers in the informal sectors especially in the manual stone crushing or small mining sites experience severe decent work shortfall and their conditions are highly vulnerable; some of the disadvantages from the informal sector are due to poor implementation of the policy that correlates with the following: workers in the informal sectors are often characterized by small or undefined workplaces, unsafe and unhealthy working conditions, low level of skills and productivity, low or irregular incomes, long working hours and lack of access to information, markets, finance, training and technology. Also, workers in the informal sectors are not recognized, registered, regulated or protected under labor legislation and social protection.

Successful implementation of the formulated policy depends on the acceptability of the intervention to policy deliverers and recipients (workers). From the worker's perspective, the content, context, and quality of OHS treatment received may all have implications for acceptability. The policy is considered acceptable whereby workers and other OSH stakeholders are more likely to adhere to policy rules and regulations to improve the health and safety of the workers and their wellbeing. Also, the low acceptability of policy may affect the implementation of the policy and may not be successful as intended which results in poor implementation of policy. This can impact the effectiveness and acceptability of the policy (13).

The informal sector economy was a central focus at the 11th African Regional meeting in Ethiopia, Addis Ababa, held in April 2007. The meeting emphasized the necessity of implementing a range of integrated and coherent policies in informal sectors aimed at moving informal sector units into the mainstream economy with a better working environment. Policies

for employment generation, the extension of social protection, a favorable regulatory environment, promotion of labor rights, entrepreneurial and skill support, local development, and strengthening social dialogue were needed to break out of informality (20).

2.1 Measures Taken By Government To Promote Awareness Of Occupational Health And Safety Policy In Informal Sectors

Since independence in 1961, occupational health and safety standards in Tanzania were provided for by the Factories Ordinance Cap 297 of 1950. During that time the emphasis on occupational health and safety was centered on factories alone. The government continues to implement measures aimed at strengthening its capacity to enforce compliance of minimum and acceptable standards, as its cardinal mandate through the introduction of codes of practice and encourage bilateral agreements among the social and other development partners.

The government through Public Service Reform Programme (PSRP) established Occupational Safety and Health Authority (OSHA) under the Executive Agency Act No. 30 of 1997. OSHA was officially launched on the 31st August 2001; the agency aims to improve the health and safety of workers at all workplaces through enforcement and promotion of occupational health and safety practices. Improvement of health and safety at work reduces accidents and occupational diseases, which ultimately achieves better productivity.

In Zanzibar, the Ministry of Labor, Empowerment, Elderly, Youth, Women, and Children is responsible for labor inspections and occupational health and safety regulation implementation to the private and public organizations. The inspection is split between labor officers to inspect the monitoring of employment contracts, wages, working time, and occupational safety and health of the workers. The enforcement of occupational health and safety standards is currently undertaken by The Ministry of Labor, Empowerment, Elderly, Youth, Women, and Children. The enforcement is accomplished through the following activities: workplace registration; statutory inspections (electrical inspection, pressure vessel inspection, and lifting equipment inspection); risk assessment; training and information on occupational health and safety; and approval of workplace drawings or plans. Other activities include: diagnosis of occupational diseases;

occupational health surveillance; work environment monitoring; investigation of accidents; and authorization of private OHS Providers.

The international labor standard Declaration clarifies that there is a high demand for the formulation and active implementation of occupational safety and health (OSH) policies as priority concerns for informal economy workers, particularly those exposed to accidents and injuries at workplaces. Developing preventive OSH policies and measures adapted to the informal economy is a key requirement for addressing decent work deficits with a direct impact on productivity and poverty reduction. The Promotional Framework for Occupational Safety and Health Convention, No. 187 (2006), provides basic principles for national OSH strategies and policies to be developed to create safer working conditions in the formal as well as in the informal economy.

Government and top management set the OHS policies and support and implementation of the policies are crucial to the effectiveness of these policies. Beak (21) suggested participation in policymaking as they stated that: “the development of a health and safety policy is the responsibility of the employer”. However, for such a policy or a program to be accepted and become successful, it will need the commitment and endorsement of the workers. Therefore, it is critical to involve the workers in the early stages when developing a policy or program. This would include, but not be limited to: the workers' health and safety representative or the occupational health and safety committee. Policy formulation is a mandatory requirement as provided in the OSHA under Section 90 that every employer with more than four employees should make a policy on OHS (22).

In most situations, labor laws and policies exist but they lack or limited compliance and enforcement of laws and the regulatory framework in the informal economy is the challenge. In Zanzibar, the weak capacity of labor administration and labor inspection compounded with governance issues have been neglected hence there is the need to rethink the traditional functions and methods of work of labor administration and labor inspection in the light of the new realities

2.2 Stakeholders Awareness On Occupational Health And Safety Policy In Informal Sectors

According to the Joint Committee of the WHO and the ILO, Occupational Health and Safety has four aims which are (i) promote and maintain the highest degree of physical, mental, and social wellbeing of workers in all occupations; (ii) prevent illness caused by their working conditions; (iii) protect workers from risks resulting from factors adverse to health; and (iv) place and maintain the worker in an occupational environment that is suited to him or her. However, global trends show that occupational health and safety concerns revolve around the increase of occupational injuries, accidents, or diseases, the implementation of Occupational Health and Safety (OHS) policies and programs are rather weak in which there is a need to strengthen the OHS, and for this to materialize stakeholders and their constituents must ensure that policy formulation, program development and services are provided and implemented accordingly (33).

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However, global trends show that occupational health and safety concerns revolve around the increase of occupational injuries, accidents, or diseases. The implementation of Occupational Health and Safety (OHS) policies and programs are rather weak in which there is a need to strengthen the OHS and for this to materialize stakeholders and their constituents must ensure that policy formulation, program development and services are provided and implemented accordingly.

In support, the literature reveal the importance of stakeholders' engagement in the successful implementation of Occupational Health and safety policies and programs that ensures the well-being of the workers in all sectors, that is, formal and informal sectors. Engagement of the

stakeholders contributes to the success of the policy and program implementation. The occupational health and safety stakeholders play a big role in implementing and developing systems to ensure the success of Occupational Health and Safety.

It is imperative to note that decision making is a shared responsibility by government, non-government agencies, and professional bodies. These agencies must work hand in hand to be able to do their OHS functions well. Addressing the gaps, may not be the best retort to the weakened OHS implementation but this could be the means of opening other opportunities in taking notice of the responsibilities of the stakeholders as primary implementers and leaders for occupational health and safety in the country (24).

The Informal economy in developing countries performs relatively poorly in occupational safety and health issues where informal economy workers in stone mining sites have often face the most hazardous jobs and the worst working conditions. A work accident affecting a family member can easily drive the entire family into destitution in which the family needs provider get into job incidents. Due to a lack of awareness of the hazards and their adverse effects for the workers, preventive occupational safety and health measures are rarely implemented in the informal economy.

The most common issue faced by the informal economy in Tanzania is the lack of awareness on the presence of the health policy measures tools such as OSH policies and lack of awareness on work-related hazards and their consequences in terms of human suffering, loss of wage-earning capacity, and economic impact on the enterprise. The need to foster awareness on a preventative safety and health culture by the informal sector workers in manual stone crushing areas such as Micheweni District can be addressed by launching national OSH campaigns on a wide scale using different channels and media at national and local levels. Furthermore, institutions that support OSH advice have historically been available only to formal enterprises. Mechanisms to facilitate the role of OSH authorities, to develop partnerships with a larger range of governmental institutions, non-governmental institutions, and community-based facilities are avenues to be further explored (18)(25).

A study report by (26) and (27) found that majority of informal sector workers in Tanzania had low knowledge of OHS policy, rules, and regulations. Most of them are not trained on OHS and do not use protective gear when performing their duties. Moreover low awareness of OHS matters among the government officials, general public, workers, and employers as one of the challenges that face promotion and provision of OHS services in Tanzania. Even though the OHS policy of Zanzibar (2007) recognizes that health and safety services are important in the informal sector for sustainable development of a country, in the current situation in Tanzania the informal sector has been ignored and not a priority in the OSH interventions. Excluding the informal sector in issues of OSH is not pleasant given that the informal sector in Tanzania employs a majority of the youths in the country. In principle, Occupational diseases and injuries are preventable. Among the approaches to prevent these include developing awareness of occupational health and safety hazards among workers and employers (28) (23).

Meanwhile, there has been no national or regional ongoing programs or initiative from governmental institutions or social partners, such as employer's organizations and trade unions, for raising awareness for promoting safer and healthier workplaces both in formal and informal sectors that results to the lack of awareness in implementation of occupational health and safety policies, The campaigns and similar awareness-raising activities shall be planned, including ensuring appropriate financial sources (37).

2.3 Challenges facing manual workers and their effect on OSH policy implementation

The study by (14) showed that the challenges of occupational health and safety policy implementation in Africa have constituted barriers to implementation of occupational health and safety measures. The study discovers that Nigeria and most countries of Africa have entered economic fall because of policy implementation challenges such as unrealistic goal setting, political patronage, political instability, insecurity, insensitive to the capacity of the target population to contribute to policy formulation and implementation, and lack of consideration of the environment in implementing of the occupational health and safety policy. It should also be clear that policies are often forced on people without them being consulted by the government thus sabotaging such a policy (30).

Zanzibar, like other developing countries faces challenges in the promotion and implementation of occupation health and safety policy. These include the following:

- 1). Inadequate effective institutional framework to enhance OHS in formal and informal sectors.
- 2). Low OHS skills among health care service providers.
- 3). Lack of resources (human, technical, and financial) to carry out OHS
- 4). Low awareness of OHS matters among the government officers, general public, workers, and employers.
- 5). Low compliance to OHS standards.
- 6). Poor work environment in the informal sector.
- 7). Inadequate OHS training and skills development.
- 8). Lack of financial commitment by government and social partners to enhance occupational safety and health activities.
- 9). Government officers who are not fully committed or motivated to enforce health and safety policy.
- 10). Corruption.
- 11). Lack of employer interest in providing a safe working environment.
- 12). Inadequate OHS information.

CHAPTER THREE

METHODOLOGY

This chapter describes the methodology that was employed to conduct this evaluation study. It outlines the study area, evaluation design, study population, sample size and the sampling procedure. It also describes data collection methods, data management, analysis plan and concludes with the ethical considerations related to the study. This chapter presents all the methodologies that were applied to conduct the study whereas the justification of choosing each methodology is given

3.0 Research Design

Exploratory cross-sectional qualitative study design was used. The design was selected to explore in-depth the phenomena under study and it was cross-sectional because data about the phenomena was obtained at one moment in time. The cross-sectional exploratory survey is a research design that describes the existing phenomena of a particular issue (31). The research design was used to describe the implementation process of Zanzibar Occupational Health and Safety Policy in manual stone crushing sites at Micheweni District. The researcher asked participants in the study to air out their views about the topic under study.

3.1 Study Area

The study was conducted at Micheweni District, one of the two districts in the North Pemba Region of Tanzania (Figure 2). According to the national census of (2012), Micheweni District had a population of 83,531. The researcher selected Micheweni district purposively due to its high number of stone crushing mining sites for building blocks and the availability of a high number of employees in crushing stones sites. Furthermore, the OSHA report (2017) shows that even though Micheweni district has a high number of crushers, over half of them do not adhere to safety policies, therefore, it triggered the researcher to design the study in the area.

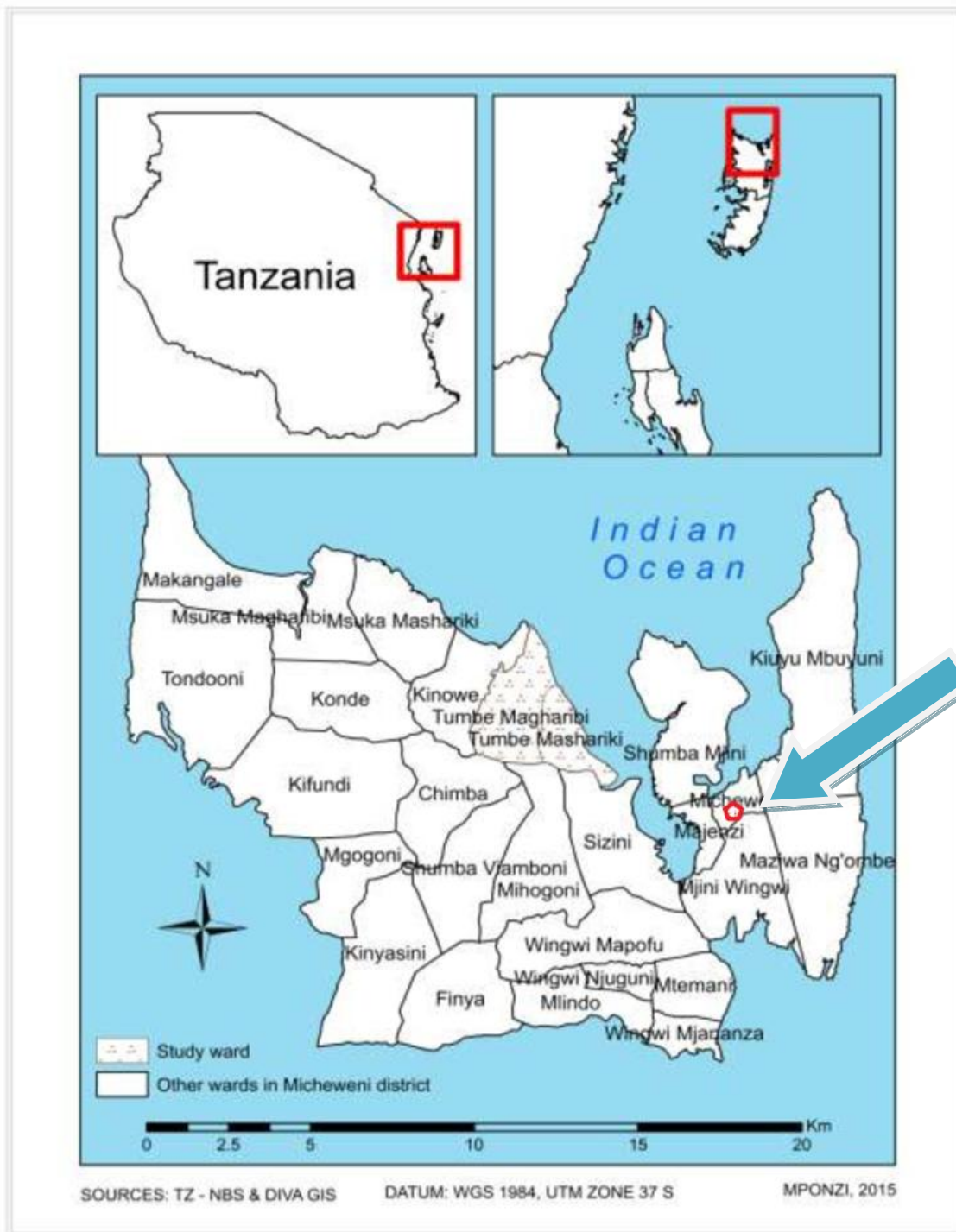


Figure 2: A map of Micheweni District, source (32).

3.2 Evaluation approach

A qualitative approach was used because the researcher wanted to get a deeper understanding of the implementation process of occupational health and safety policy.

3.3 Targeted Population

The targeted population included 25 manual stone crushers, 10 site supervisors, and 5 government officials in the study area. The study could not take the whole population as a unit of analysis; hence this research purposively selected only the required selected participants from the targeted population at the manual stone crushing sites within the Micheweni district. The number arrived was due to the fact that the participants were the total available in the particular day the interview was collected.

3.4 Selection of participants

The participants were selected for estimation of the results with considering of population saturation of results. Based on the selection criterion, the study selected 40 participants including 5 District government officers, 10 site owners, and 25 stone crushers working on the manual stone crushing sites at Micheweni District. Also, the sample size depended on the population saturation of information and the level of detail in the proposed analysis and the available budget. The researcher selected a small number that can be adequate for the study to meet its objectives.

Table 1: data collection tools

SN	Target group	Tool for data collection	No of participant
1	Government officers	Key informant interview	5
2	Site owners	In-depth interview	10
3	Site workers	Focus group discussion	25

3.5 Sampling method

Purposeful sampling using a convenient sampling method was used. Convenient sampling used for getting government officials, site owners and the workers who worked on the manual stone crushing sites during the day of study and was purposively selected for an in-depth interview because of the roles they played in the implementation of Occupational health and safety policy. Contact information of District government officials in the OSH department was obtained to schedule interviews at the workplace (31).

3.6 Data Collection Methods

Data collection is a process of collecting information from all the relevant sources to find answers to the research problem, test the hypothesis, and evaluate the outcomes. Data collection methods can be divided into two categories: secondary methods of data collection and primary methods of data collection.

Data collection in this study was conducted using mainly qualitative methods but supplemented by documentary review to obtain secondary data. A documentary review method was used to obtain data related to the study objective on assess the measures which are taken by Government to promote awareness of occupational health and safety policy in informal sectors in Micheweni District.

On the part for obtaining primary data, the questions were framed around four themes originating from the study objectives. First is acceptability and awareness of OSH policy, the second provision of labor inspectors on occupational health and safety professionals, third is the monitoring of OSH policy implementation by government and fourth is the factors affecting the implementation of OSH policy. The collecting data techniques included In-Depth Interview (IDI) with key informants such as government officers at District level, stone crushing sites supervisors (owners) and labors who works on the stone crushing sites at Micheweni District, to know whether OSH policy is acceptable as a tool for OSH policy implementation, whether the government provides occupational safety and health inspectors, how the government monitors implementation process of OSH policy and the factors affecting OSH policy implementation in

stone crushing sites at Micheweni District. The KIIs, IDS, and FGDs were conducted for the purpose of obtaining first-hand experience from those who were on the stone crushing sites. Although, observation could be used as a data collection method, the above mentioned techniques proved more useful and more bias free.

3.7 Data Collection Instruments/tools

An interview guide was used where factual questions about experiences, views, and opinions about the subject under investigation were asked. The questions were asked based on assessing the four study objectives. The interview guide developed in English was translated by the researcher into Swahili to ensure that participants understood the content. To maintain the content, it was then translated back to English. However, only the Swahili version was used to interview participants. The reason was because all participants preferred using the Swahili version in conducting the interviews. The technique ensured good understanding and ensuring the right answers from participants as they were approached using familiar language to the informants.

Focus Group Discussions data collection tool was used to get deep understanding which was useful in generating a rich understanding of participants experiences and beliefs and provides data which are not obtainable through documentation or records. Three FGDs were conducted with a total number of 25 people.

The checklist was used in conducting a documentary review to observe the OSH requirements in all working areas. It was used to obtain answers on three objectives: - first is on the extent to which government provides occupation health and safety inspection officials and the second is on the extent to which government abides by financial commitments to provide for policy implementation to the formal sectors the third is the availability of protective equipment, ventilation, and lighting at the stone crushing sites. **Table 1** shows the distribution of the tools used with the number of participants.

3.8 Recruitment of research assistants and training

Two research assistants were recruited to assist the researcher in data collection. Their background education was a minimum certificate but preferably a diploma in health-related education and this was an advantage for data collection because of a high understanding of the purpose of the research. One-day training was conducted to orient research assistants on objectives of the study, study area, and study population, data collection procedures and tools, the importance of confidentiality, ethical consideration, and timeframe.

3.9 Pre-testing of the tools

The researcher pre-tested the designed tools at stone crushing (kokoto) at Mbuyuni Kunduchi Dar es Salaam. This was done four days before the start of the study to assess if tools are correctly understood and participants gave the answers as expected. The outcome of this pre-test provided a clear indication of response to the interview guide as well as the average time allocated for one session. The research assistants did not participate in the pre-testing of tools because the pre-testing was conducted in Dar es Salaam and the research assistants were located in Zanzibar and it is where their training was conducted.

3.10 Data collection, processing and analysis

Organization and preparation for data collection:

Prior to the beginning of each interview, participants were asked for permission to be audio-recorded, all participants provided consent to participate in the study. All targeted participants were interviewed by the researcher between 20 and 30 minutes for in depth interviews and between 1 hour and 1.20 hours for FGDs. After the interviews, the recordings were transcribed into computer files. Care was taken by the researcher to assure the participants would not be identifiable in any subsequent report. Once the final research report is submitted and accepted the audio files from the interviews will be discarded.

This started to be done at the field concurrently with data collection. Transcription continued after data collection was completed. Each transcribed data had identification information which

included the location. The transcripts were then typed into computer files using Microsoft word 2010. The researcher conducted traditional transcription in which the audio files were listened to and then each word was transcribed in the Microsoft word program. The computer files were named based on location.

Reading through all the data: the researcher read and reread the data several times to get a preliminary sense of the data and interact with it. It allowed the researcher to get general ideas regarding what the participants were saying. The reading helped to set up ground for analysis. The researcher used both qualitative and quantitative methods to get a meaningful picture of ideas and opinions from participants. The researcher used a few quantitative characteristics such as statistical procedures and tabulation to analyze the data, in order to ensure good and systematic flow of information is presented.

Data analysis: Qualitative data analysis is an on-going process that is carried out simultaneously with data collection, interpretation and writing reports. The researcher analyses data for themes or perspectives (33). This study employed what is generally referred to as theme-centred or category-based analysis. One of the advantages of this type of analysis is its theoretical freedom (34).

In this study the initial codes were both inductive and deductive, which means that they originated both from the researcher's own theoretical understandings and from the respondent themselves.

All data were coded and codes gathered into more and more abstract codes. After the initial coding, codes were merged into larger units organizing those that were similar in meaning content. This merging of codes into larger units persisted until they remained only a few codes which were then integrated into themes.

3.11 Data management

All data that was generated from the participants was checked and cleared daily to ensure its quality, correctness, completeness, and consistency. This was done to ensure that all information

from the interview was recorded and documented effectively. Management of data was at a high level of confidentiality: only those directly involved in the study had access to the collected data. Tape recorders with Audio-recorded data and other collected data were kept in a safe box accessed by the principal investigator alone. All data that was generated from the government records was checked daily to ensure its quality, correctness, completeness, and consistency.

3.12 Ethical issues

The proposal was submitted for ethical clearance to conduct the study through the Muhimbili University of Health and Allied Sciences (MUHAS), research, and publications committee. All ethical issues were adhered to and addressed accordingly. In addition, the ethical clearance was requested from Zanzibar research committee and North Pemba Regional Authority Secretary. Permission to conduct the study in Micheweni district was sought from Zanzibar research committee and Micheweni Executive Director and other relevant authorities at the district level such as local government administrators like Sheha.

Written or verbal consent was obtained from the participants before the interview. Participants had the permission to decline to be interviewed and those interviewed were free to end the interview at any point. Participants were not given any incentives for taking part in the study. This ensured that the information provided was not influenced by any incentives and thus ensuring validity of the data collected. Confidentiality was ensured throughout the study no participant identifying information was recorded. Participants were informed about the objectives of the study and their participation was voluntary. This motivated the participants in airing out their views without fearing repression from the government or any other authority.

All respondents were requested for their permission to record information through audio recording and writing during the interview process and that the information generated will strictly be used for research purposes only. There was no risk involved in participating in this study.

3.13 Study limitations and mitigation plan:-

Risk of bias: Since the study included District government officials involved in implementing and managing occupational health and safety policy, there was a risk of information bias from participants giving their perception of issues rather than facts. To mitigate this bias first researcher clearly explained to them the importance and objectives of this study so that they understood and provided facts. Also, the response bias: due to the sensitivity and nature of the study topic it was possible that the participants might provide false information which could affect the results of the study as well. This was due to the fact that some of the responses the participant provided could be interpreted as politically motivated and thus could potentially endanger their careers. It was also feared that some manual workers in the stone crushing sites would hesitate to spit out the facts due to fear of repression from the government given the rebellious history of the Northern District Pemba in political issues. To reduce this; the study used a triangulation method such as a documentary review to validate the data received from other sources.

The quality of data for this study affected by the accuracy of the findings, therefore, this qualitative study ensured data trustworthiness. The trustworthiness of the findings is the key fact delivered from the data to make the findings valuable. The purpose of trustworthiness in qualitative research was to support the argument that the inquiry findings are worth to be paid significant attention to. Most of the researchers suggest that in ensuring trustworthiness in qualitative studies the following four concepts are used which are credibility, transferability, dependability and conformability (35),(33).

Usage of **credibility** was preferred to internal validity; **transferability** in preference to external validity/generalizability; **dependability** was in preference to the reliability, and **conformability** was preferred to objectivity. Credibility was ensured through the use of in-depth interview method which ensures credible information is collected from participants. Transferability was ensured through the use of triangulation method. This method ensured that the data collected from one source is cross-checked through another source or research methodology in order for the result findings to be transferrable. Dependability was ensured by the use of fixed and consistent data collection methods such as in depth interviews which necessitated repeatability of

the research in the same context with the same results. Conformability was managed through confidentiality and a set of different data collection such as the triangulation methods which helped to ensure that the responses obtained from participants were bias-free.

CHAPTER FOUR

STUDY FINDINGS

4.0 Introduction

The previous chapter presented the methodology used to obtain answers to the research questions; this chapter presents the findings and begins with a short description of the characteristics of participants. In this study a total of 40 participants were interviewed comprising of manual stone crushing workers, site owners, and Occupational health and Safety department officer at Micheweni labour office. The following table shows demographic data of participants where majority of the participants were male

Table 2: Demographic characteristics of participants

VARIABLE	TOTAL
Age in years 25-35	25
36-45	9
46+	6
Sex: Male	35
Female	5
Educ.: Diploma/Adv. Diploma	2
Form four/six	1
Standard seven	37

Key: Educ. = Education, Adv. Dipl= Advance Diploma

16 of the participants were from Kiuyu Maziwa N'gombe, 8 of the participants were from Majenzi, 12 of the participants were from Micheweni, and 2 of the participants were from Mjini wingwi, 1 from Micheweni Occupational Health and safety department and 1 participant from Zanzibar Labour office. The sites were selected because they were the only at the sites at the day of data collection in Micheweni that were conducting stone crushing activities.

1. Awareness of stakeholders in stone crushing sites on Occupational Health and Safety Policy issues.

The analysis was done and results are presented below.

i. Awareness of OHS policy among manual stone crushers

The stone crushers at Micheweni District seem not to be aware of the contents of the policy as illustrated by one of the participant from Mjini Wingwi:

“We are not aware that there are policies on health and safety issues that governs the informal sectors but we do not know exactly on what the policy say does or how to implement them” (participant from FGD at Mjini wingwi ward, male).

Manual stone crushers work according to their experience and creativity, unaware of occupational health and safety laws and regulations as contributed by this participant:

“we do not have any laws or procedures in our work, we crush stones as we are instructed by those who preceded us” (Key informant interview Participant from Micheweni shehia, Male).

Also other participant from Mjini wingwi added:

“I don't know anything about the policy on health and safety in working environment and I have never even seen it” (KII participant from Mjini Wingwi, Female).

Another participant was quoted:

“Experts should teach us how to effectively implement the policy with its benefits to implement it so as to improve and maintain our health and safety at work” (FGD Respondent from Majenzi, male).

ii. Awareness of OHS policy among manual stone crushing sites owners

The findings showed that most of government officials are aware of the OSH from the study. It was found that government officials are always given trainings as well as seminars of OSH. It was found that the government officials have knowledge of the policy, regulations as well as strategies on OSH.

As quoted from the participant:

“We use the policy as our guideline to enforce and to supervise workplace activities in our jurisdiction area and we do conduct seminars to workers and employers in collaboration with medical and other labour officers in inspecting the implementation of labour laws” (Key informant, OHS officer, male).

iii. Awareness of OHS policy among Government officers

The findings showed that most of government officials are aware of the OSH from the study. It was found that government officials are always given trainings as well as seminars of OSH. It was found that the government officials have knowledge of the policy, regulations as well as strategies on OSH.

As quoted from the participant:

“ We use the policy as our guideline to enforce and to supervise workplace activities in our jurisdiction area and we do conduct seminars to workers and employers in collaboration with medical and other labour officers in inspecting the implementation of labour laws” (Key informant, OHS officer, male).

2. Measures taken by Government officers in occupational health and safety department to promote occupational health and safety policy in informal sectors in Zanzibar.

It was found from the Zanzibar Occupational Health and safety profile that the government has set a number of policies and regulations on safety and health in the working sites. It was also found that government has established the occupational health and safety department to ensure that workers in formal and informal workplaces are free from occupational hazards that may cause injuries or illness to employees. A workplace is any premises or place where a person performs work in the course of his employment. Any company or individual owning or occupying a factory or another workplace in Zanzibar needs to obtain the Certificate of Compliance with the occupational Health and safety measures and regulations from department of Occupational health and safety under the Ministry of Labour.

The findings shows that government officials from Occupational health and safety department have been conducting a number of trainings and seminars to both employees and site owners on the importance of occupational health and safety in the workplaces. The training was done so as to give a clear understanding of the existing policies and how to implement the policies.

Moreover, the findings shows that the government officials from OSH department have set a number of punishments as well as penalties for any employees or workers who do not adhere the rules and regulations of OSH as instructed from the policy in formal sectors which is very rare in informal sectors ,as one of the participant illustrates:

“Most of the time the private sectors such as industries are inspected to ensure the enforcement of the policy requirement to the workplace management and workers, when caught not complying with the policy requirement there are different measures that are taken such as warning and time frame to complete the requirement and others are serious case which requires penalty and sometimes to labor court” (respondent from OSH department).

When the OSH department officer asked is there any punishable measures undertaken upon failure to comply with occupational health and safety policy in informal sectors, the reply was:

“It is very hard to take action to the informal sectors especially stone crushing sites, it had never shutdown by not complying with the policy” (respondent from OSH department).

Also government officials have been airing a number of education programs through TV stations as well as radio stations so as to bring a clear understanding of the policies and regulations on health and safety issues in the mining sites.

Currently, all trainings are centrally organized and this has resulted in failure to reach many workplaces and hence the emergence of high cost of training following the travelling and other related costs which are incurred by the employers.

On ways to raise awareness to the informal sectors such as stone crushing site, department officer said:

“We provide training to the informal sectors about the importance to comply with the occupational health and safety measures, we usually cooperate with health experts to train and we do that in intervals, those with permits come by themselves or their representatives who are good ambassadors in stone crushing areas” (OSH department officer).

When the researcher asked the Occupational health and safety officer about the supervision as the way to monitor activities in stone crushing areas and make sure that workers do follow their advices he responded as follows:

“We do regular inspection because it is a part of our everyday job” (OHS department officer).

However, informal sectors need more information, awareness, and education on the technical, economic, health, safety and environmental aspects of their activities. Stone crushers can also

improve their health, safety and productivity by sharing their knowledge and technologies with each other. But there is often a lack of knowledge and information about the health and safety of informal sector stone crushing workers and their communities as elaborated by one of the participants:

“Government officers especially from environment department insist on acquiring permits but they do not teach us on how to protect ourselves from accidents, they only insist on filling holes after using the area but they do not make a follow up” (Respondent from Micheweni).

The interviewed participants claimed that most of the trainings which are provided by the government in informal sectors are arranged within town areas not around the site premises that make them not attending the trainings they leave behind many without any training that involves safety at work and health, those who cannot reach the town areas due to different reasons.

“They arrange the training at conference halls around towns due the distance we cannot attend; we have no education that can enable us to improve our work safety” (Respondent from Majenzi)

The findings also showed that there is no inspection conducted to provide assurance to employees and employers on the health and safety working environment in manual stone crushing sites at Micheweni District. OSH department Officers has not adequately implemented its responsibilities as per objective of its establishment to ensure the policy implementation by all sectors that are formal and informal sectors.

Similarly, the OSH department representatives who were supposed to review the effectiveness of health and safety measures and identify potential hazards and major incidents at manual stone crushing sites or workplace have not adequately implemented their functions. Ineffectiveness of OSH department has resulted from identified weaknesses in planning inspections, execution and follows up on the recommendations issued by inspectors after conducting inspections. This is supported by a participant from Micheweni site;

“Since I started this job I have never seen any inspector coming to inspect the site according to the occupational health and safety policy enforcement; there are a lot of things we can discuss with them” (FGD participant from Majenzi site, Male).

3. The acceptability of Occupational health safety Policy by owners and workers in manual stone crushing sites as a tool towards its implementation in stone crushing sites

The findings showed that most of site owners disregard the policy implementation; it was found that most owners do regard the policies as a burden to them. As one of the participants was quoted:

“Most of the site owners are not fully aware of the occupational health safety policy, they have some ideas such as to provide gumboots, wearing of gloves as well as wearing protective huts while o site. But site owners do not accept the policy requirements by taking the trouble to prepare for such items for their employees, they regard them as a burden to them , also employees have to take care of themselves” (Key informant Participant from OSH department, male)

Moreover, it was found that employees have low acceptability of the policy with a big obstacle is they cannot afford the price of the safety items. It was noted that workers and owners of the sites do not accept the OSH policy implementation as a tool for increasing their production.

Another participant from FGD contributed the following about policy acceptability by workers:

“Wearing boots, helmet and masks when doing our daily jobs I accept it, although lack of capital is problem to many of us as it hinders us to buy safety tools”(FGD participant from Kiuyu Maziwa N’gombe, male)

Also, it was found that the side of site owners and management in most manual stone crushing sites does not consider occupational health safety (OSH) as an important condition for high productivity. Moreover, it was found that most sites do not consider the policy as important thing in their operations that shows low level of policy acceptability.

Management of stone crushing sites gave the excuse of financial constrain when it comes to improving OSH and implementing the policy. The workers are aware of this and they, as a result,

perform poorly and develop anger towards the management. This reduces employee morale and workers willingness to work, as one of the participant quoted:

“The policy has a lot of complications that require people with huge investment to comply with, we make sure every worker at the site protect himself and we cannot stop anyone who does not have protective gears to work, everyone has the responsibility to protect himself “(KII participant from site owner at Micheweni, Male).

4. The challenges facing workers working in manual stone crushing site at Micheweni District and their effects in OSH policy implementation

i. Poor working conditions

The participants were requested to mention challenges they faced in their activities in twelve months preceding the study. Most of the manual stone crushing sites mentioned poor working condition as the major constraint to their activities. This had substantial impact on income for individual local and the national economy.

At all study sites, manual stone crushers worked under direct sunshine and were thus exposed to high temperatures as well as to wind and the stone dust. They had to perform a range of activities including carrying blocks on their heads or backs to the block yards. Based on their responses, analysis of the findings is described below:

“Working environment is our main challenge it’s not conducive for our health, we are working in very poor conditions we use a lot of energy exposed by the sun with dust and we fail to control this because of our economic strength” (FGD participant from Majenzi site, Female).



The top view of the Micheweni manual stone crushing site where the tent is used for sun burn protection (source researcher 2021)

ii. Disease and injuries at manual stone crushing site

Interviewed participants reported that they are working and living in compromising environments and they use poor tools in making blocks due to the lack of adequate capital that would help them in buying quality tools that would help in improving the income, health and safety at work, hence they find themselves working in poor environments that endanger their safety.

“we work in very difficult environment and it’s very difficult job indeed, there are no latrines, clean water, no proper ventilations and infrastructure to carry the blocks people fall while taking blocks to the block yard to prevent which are very important to prevent injuries and other disease, there are many communicable diseases in this site” (FGD participant from Majenzi, Male).

The stone crushers suffer diseases like typhoid, malaria, tuberculosis, skin and venereal diseases as contributed by the participant:

“We are faced with many abdominal infections due to drinking unclean water and we don’t have latrines we use bushes instead” (FGD participant from Majenzi, Male).

The cost of taking care of those who got accidents in stone crushing sites due to poor working conditions could push them into poverty. It was also noted that all sites were constrained by the use of poor technology in their activities participants operated with poor technology; for instance, most of activities were done manually as participants depended on the use of local technology in mining processes.

“We use two-man crosscut saw as our main tool for crushing stones for making blocks its very risky it needs more attention and techniques to operate it; it’s the tool which we learned from our grandfathers” (FGD participant from Micheweni shehia site, Male).



A picture of two-man crosscut saw as main tool for crushing stones for making blocks at Micheweni site (source researcher 2021)

Moreover, accidents causing injuries and death of manual stone crushers occur as explained by the following participant:

“ I have witnessed our colleague injured his feet after collapse of rocks from the top while he was working with his partner, we experience many accidents which are results from poor working conditions” (KII participant from Maziwang’ombe, Male).

iii. Inadequate government intervention

Also the issue of inadequate government intervention was mentioned among the participants as a challenge. Other constraints were lack of safety skills, financial accessibility and economic empowerment support to take precautions by buying modern equipment and working gears.

“We have not been provided with any education on improving our safety at work from government institutions responsible for improving health and safety at work places, we work the same way as our fathers and fore fathers” (FGD participant from Mjini Wingwi, Male).

CHAPTER FIVE

DISCUSSION

In this section the study findings are interpreted and discussed with comparison from what was reported by other studies done in developing and developed countries. In this study the implementation of Zanzibar occupational Health and safety policy 2017 was assessed on basis of acceptance of the policy by stakeholders involved, assessed measures taken by Government to promote awareness of occupational health and safety policy in informal sectors, assessed the awareness of stakeholders in stone crushing sites on Occupational Health and Safety Policy issues, and examined the challenges facing workers working in manual stone crushing sites Micheweni District.

5.0 Awareness of stakeholders in stone crushing sites on Occupational Health and Safety Policy issues

Evidence from the field interviews showed that manual stone crushers are not aware of the occupational health policy. Similar arguments have been made by (36) who revealed that many workers and owners in manual stone crushing sites are not conversant with the policies, laws and institutions governing them. Results indicated that less than 2% and 16% of artisanal and small scale miners, respectively, were aware of these institutions. In the majority of cases the lack of awareness may be due to lack or inadequate communication between policy makers and other stakeholders which also was found by (1) that communicating with the people implementing policies is equally necessary to build their support for implementation and to deal with their concerns.

This study revealed that the Government officers in the district are also not aware of the policy implementation in informal sectors such as manual stone crushing site at Micheweni district. This is because the policy documents was not communicated to them as the same explained by (11), that although the Zanzibar government has made a lot of efforts related to the improvement and protection of rights of workers such as the formulation of OHS policy but it is not yet circulated.

5.1 Measures taken by Government officers in occupational health and safety department to promote occupational health and safety policy in informal sectors in Zanzibar

Results from this study showed that the government is lagging behind in enforcing the implementation of the policy through different measures that promote policy implementation. Manual stone crushers in Micheweni District have been working in the same way as their fathers and fore fathers without the government interventions.

This was similarly commented by the study conducted in twelve countries in Africa (6) that miners rely on knowledge passed down from their parents and use outdated technology with no government intervention in improving their working areas. This was associated by manual stone crusher's lack of training and adequate education which limits their understanding and opportunities.

The same has been explained by (37) in a study done in Chunya, Tanzania that most of the respondents had a primary education (70%) but only 30% had secondary education and post-secondary training. Such low level of education not only limits livelihood opportunities, but also exposes them to risks. It was revealed during the study that the inspections are irregularly conducted by the government officers therefore to minimize chances of increasing understanding of occupational health and safety.

Similarly, another study by (37) showed that governments do not attempt or lack the capacity to monitor or control mining activities which often occur in remote and inaccessible locations in informal sectors. Bamu-Chipunza (2018) argued that the international community could do much more to improve sustainability in the informal sectors by providing training and educational assistance, similar argument has been made by (13) that the development of training guidelines, criteria and materials specifically aimed at the small-scale mining sector would be beneficial in increasing acceptance of legislated health and safety requirements among employers and hazard awareness among their employees.

5.2 The acceptability of Occupational health safety Policy by owners and workers in manual stone crushing sites as a tool towards its implementation in stone crushing sites

Evidence from the field interviews showed that the acceptability of Zanzibar occupational health and safety in informal sector is very low in which the acceptability was assessed using tripartite system, the government, workers and employers. Low acceptability of the policy in informal sector at manual stone crushing site at Micheweni was vividly seen when the participants expressed their views on disregard the implementation of the policy as burden for the site owners and costly to the workers for taking measures in protecting themselves, they did not show any intention and willingness or readiness to learn the importance of proper implementation of the policy in the workplaces.

The results of this study are similar from those results reported by a study done in South Africa titled an Extending Occupational Health and safety Law to informal workers (38), which found that most of the stakeholders had law acceptance to the Occupational Health and safety Law , The article considered how laws can be reformed to meet the OHS needs acceptance to informal workers and other stakeholder involvement. The researcher assumed that preventing and mitigating occupational hazards in the informal economy will help to improve acceptance of the law to the workers who work in vulnerable environment and thus will enable them to work more productively. He recommended that South African OHS law should be amended to provide for informal sector workers access to appropriate infrastructure, training and health assessments. Also the law should hold local authorities responsible for these interventions where they own and control the public space and designate it for informal workers. These recommendations underscore the need for informal workers to actively participate in the law-making process to enable them to articulate their experiences and their needs.

5.3 The challenges facing workers working in manual stone crushing site at Micheweni District and their effect in OSH policy implementation

There are number of issues facing workers in the manual stone crushing sites with the experience of various challenges in forms of insecurity and vulnerability, including exposure to occupational health and safety (OHS) risks. The manual stone crusher's health is compromised by the very work they do, Occupational hazards have a negative impact on site workers, income security and social security. Yet, the policy that require health interventions such as hygiene, monitoring of hazards and hazard controls are modelled on formal sectors and focus on conventional workplaces such as factories, mines and shops and leave behind the informal sectors.

Operation cost has been reported as the challenge of organizing and running an OSH system in manual stone crushing sites. To implement the policy has been seen as costly and needs huge capital to implement and manage safety and health efficiently. Adequate financial resources must be allocated within working areas as part of overall running costs. The challenge is to institutionalize safety and health within the planning process. Once the programme is under way, concerted efforts must be made to guarantee its sustainability.

A study done by (3) showed that it is important for governments to institutionalize safety and health policy in informal sectors by planning thoroughly and organizing the operation costs for ensuring successful implementation. The study found that since most informal workers are at risk due to negative impacts of their manual activities, it is imperative that the government allocate enough resources in order to help the health and safety of workers in informal sectors.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 CONCLUSION

This study aimed to evaluate the implementation of Zanzibar occupational health and safety policy 2017 in informal sectors at manual stone crushing sites at Micheweni District. The results revealed that the implementation of the policy is not effectively due to the low acceptance of the policy requirements and low awareness of stakeholders on policy implementation, in discussion section as it revealed that there was a greater need for policy implementation to increase production, profit to the site owners, safety of workers and satisfaction to the site workers. This report concluded that; the gap found from the study is between established policy and its implementation that the policy was not communicated to the stakeholders in informal sectors including Government officers. There is need to be adequately addressed to ensure effective policy implementation in both formal and informal sectors in Zanzibar.

However the findings have come out with an extraordinary views or suggestions on how site owners and government can manage occupational health and safety policy implementation in informal sectors to improve and protect workers from work related hazards and diseases. This is according to the respondents' views training and education, management seriousness on making follow-up and disciplining workers concerning health and safety, conducting timely safety information, provision of safety gears, and stakeholder's involvement will ultimately facilitate achieving goals.

While the government plays its role in addressing these implied solutions, firms in the informal sectors have to play their part in terms of providing on-the-job-training and educational sponsorships for their staff to improve the implementation of OSH policy.

6.1 RECOMMENDATIONS

Specifically, the following recommendations are made:

6.1.1 Training and Education

Lack of knowledge and skills to the site workers and owners concerning health and safety at the manual stone crushing sites was identified by manual stone crushers and the owners too. Although they have an idea of it but still there is need of having the specific knowledge to realize their best. It was recommended that providing education periodically including seminars will help to increase awareness and bring desired results. More effective coordination of activities is needed from the Zanzibar government OSH authority to the district levels in order to facilitate the districts to have better implementation of the policy especially in the informal sectors. The department of occupational health and safety in Zanzibar should ensure that relevant training and education is provided to manual workers at the stone crushing sites.

6.1.2 Involvement of Stakeholders

Involvement and participation of OSH stakeholders is strongly recommended as it can make policy stakeholders feel belongingness and attachment to the policy implementation. Stakeholders have the right to know and the right to participate and to get involved in decision making concerning their lives and their workplace. This can make employees feel valued, and appreciate the policy for their own benefits. The government needs to create a friendly environment to involve all stakeholders of informal sectors. It is recommended that the government should involve mine owners, manual workers, and officers from the ministry for the sake of improving awareness on occupational health and safety. This can be done during the introduction of occupational health and safety policies whereby all stakeholders need to provide their ideas on the policy formulation. Also, stakeholders should be involved during the policy implementation stage in order for them to be part and parcel of the policy thus making it easier for the policy to be implemented.

6.1.3 Conduct regular supervision and inspection

This study recommend that government should ensure that everyone in the workplace or around is protected from any harm which may relate to the working condition or operation at the place by setting good and favourable condition to both formal and informal sectors. There is a need to improve the capacity of Government officers especially OSH department so that they become conversant with the policy. Regular supervision should be conducted to the informal sectors to enforce the implementation of the policy. During inspection, the officers should remind the owners and workers and manual stone crushing sites their responsibilities concerning promoting occupational health and safety policy at the workplace so as to prevent hazards and incidents from happening at the workplace. Regular inspections will also help to minimize the violation of occupational health and safety regulations. It is recommended to conduct these periodic inspections so as to make owners to adhere to the OSH regulations in which failure to comply will result to them being penalized.

6.1.4 Research and evaluations

This study recommend that government and private sectors should promote research in this area to inform legal and policy formulation, budgetary processes, and the monitoring and evaluation of OHS policy. The study suggests the need to engage with institutions and researchers to pay attention to occupational health and safety for informal workers. There is still a huge research gap in implementation of the occupational health and safety policy in other informal sectors other than stone crushing sites in Zanzibar and Tanzania at large. This area for further study could potentially be explored by other researchers in order to generate more knowledge in the field thereby benefitting the informal sector. Scholars should also seek to examine the role of the government in implementation of OHS programs in the informal sector.

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Appendix I: Key informant interview Guide English Version

Part I: introduction of research to the interviewee and socio demographic data

- a) Key informant interview Number.....
- b) Age.....
- c) Sex Male/Female.....
- d) Educational Level.....
- e) Occupation.....
- f) Position.....

Part II: interview questions to the Government Officer from OHS department

- a) What do you know about policy implementation in informal sectors?
- b) What do you do supervising the implementation of Zanzibar OHS policy in informal sectors?
- c) What are the measures undertaken to promote implementation of Zanzibar OHS policy in informal sectors?
- d) What actions, charges and penalty can be taken against site owners who have refused to implement the policy requirements?
- e) What is the Government plan in training manual stone crushers concerning the Occupational health and safety policy?
- f) What should be done to improve Occupational Health and safety in informal sectors?

Part III: interview questions to the Site owners

- a) What do you know about OHS policy?
- b) What are the challenges facing workers in implementation of the policy?
- c) What ways do you use to protect your workers from diseases, injuries and accidents?

- d) Have you undertaken any training or course on OHS in prevention and mitigation of injuries and accidents at your site?
- e) Does the government provide any motivation and support to the owners to insure effective policy implementation?
- f) Does the site management provide enough protective equipment and clothes to the workers?
- g) How often OHS inspectors come to the site? What do they check to ensure that the environment is safe for the workers?
- h) What should be done to improve occupational health and safety in informal sectors?

Part IV: interview questions to the workers at manual stone crushing site

- a) What do you know about OHS policy?
- b) What are your comments on OHS policy implementation in informal sectors?
- c) Are there any experienced accident or injuries occurred at work site for the period you have been working at this site?
- d) Based on your own working experience, why do you think owners and Government should insist and commit on OHS policy implementation in informal sectors?
- e) What challenges do you experience while working at your workplace?
- f) What should be done to improve occupation health and safety in informal sectors?

Appendix II Muongozo wa mahojiano kwa lugha ya Kiswahili

Sehemu ya kwanza: utambulisho wa utafiti kwa mhojiwa na taarifa za kidemografia

- a) Nambari ya mahojiano ya mhojiwa mkuu.....
- b) Umri.....
- c) Jinsi (Mke/Mume).....
- d) Kiwango cha elimu.....
- e) Kazi.....
- f) Cheo.....

Sehemu ya pili: maswali ya mahojiano kwa maafisa wa serikali kutoka idara ya afya na usalama kazini

- A) Unafahamu nini kuhuhwu utekelezaji wa sera ya afya na usalama wa mfanyakazi katika zisizo rasmi?
- B) Ni kitu gani unafanya katika kusimamia utekelezaji wa sera ya Zanzibar afya na usalama ya mfanyakazi katika sekta zisizo rasmi?
- C) Ni hatua gani zimechukuliwa katika kusimamia utekelezaji wa sera ya Zanzibar ya afya na usalama wa mfanyakazi katika sekta zisizo rasmi?
- D) Kuna hatua gani, adhabu au faini ambazo zinaweza kutolewa dhidi ya wamiliki wa maeneo ya kazi yasiyo rasmi ambao wamekaidi kutekeleza mahitaji ya sera ya afya na usalama kazini?
- E) Ni mpango gani wa serikali katika kuwapatia mafunzo wachongaji wa matofali kuhusiana na sera ya afya na usalama kazini?
- F) Ni nini kifanyike ili kuboresha afya na usalama kazini katika sekta za kazi zisizo rasmi?

Sehemu ya tatu: maswali ya mahojiano kwa wamilikii wa machimbo ya matofali

- A) Unafahamu nini kuhusiana na sera ya afya na usalama kazini?
- B) Kuna changamoto gani zinazowapata wafanyakazi wa machimbo ya mawe katika utekelezaji wa sera ya afya na usalama kazini?
- C) Ni njia gani munatumia katika kuwalinda wafanyakazi wenu kutokana na maradhi, majeraha na ajali?
- D) Umeshawahi kupitia mafunzo au kozi yoyote ya na afya na usalama kazini kuhusiana na kinga na kupunguza majeraha na ajali katika sehemu zenu za kazi?
- E) Je! Serikali inawapatia msaada wowote kwa wamiliki wa machimbo ya matofali ili kuhakikisha utekelezaji bora wa sera ya afya na usalama kazini?
- F) Je! Wamiliki wa machimbo ya matofali wanatoa vifaa vya kujikinga vya kutosha na nguo za kujikinga kwa wafanyakazi?
- G) Ni mara ngapi wakaguzi wa afya na usalama kazini wanakuja machimboni? Na wanakagua nini ili kuhakikisha mazingira ni salama kwa wafanyakazi?
- H) Nini kifanyike ili kuboresha afya na usalama wa wafanyakazi katika sekta za kazi zisizo rasmi?

Sehemu Ya nne: maswali ya mahojiano kwa wafanyakazi wa machimbo ya matofali

- A) Je! Unafahamu ninin kuhusu sera ya afya na usalama kazini?
- B) Una maoni gani kuhusu utekelezaji wa sera ya afya na usalama kazini katika sekta za kazi zisizo rasmi?
- C) Je! Umewahi kupata ajali yoyote au kujeruhiwa wakati wa kufanya kazi katika machimbo ya matofali haya?

- D) Kutokana na matukio yaliyokukuta, kwanini unafikiri wamiliki wa machimbo ya matofali na serikali wanatakiwa wasisitize na wathubutu katika utekelezwaji wa sera ya afya na usalama kazini katika sekta za kazi zisizo rasmi?
- E) Ni changamoto gani unazipitia wakati unafanya kazi katika sehemu yako ya kazi?
- F) ni nini kifanyike ili kuborehsa afya na usalama wa mfanyakazi katika sekta za kazi zisizo rasmi?

Appendix III

Informed Consent

ID NO:

Introduction

Greetings! My name is Abdulrahim Mohamed, a student of Master of Science in Project management, Monitoring, and Evaluation in Health at the Muhimbili University of Health and Allied Sciences (MUHAS). On behalf of MUHAS, I am researching to assess the implementation of Zanzibar occupational safety and health policy on the informal sector in manual stone crushing at Micheweni district.

Purpose of the study: The purpose of the interview is to collect information on the implementation of Zanzibar occupational safety and health policy on the informal sector in manual stone crushing at Micheweni district, worker's experience with the occupational health and safety policy on effectiveness in improving the welfare of the workers. You are being asked to participate in this study because we believe that you have particular experiences and information that may be important to the study.

Methods of the study: As part of the study, an in-depth interview will be done and your responses will be recorded. You will be interviewed only once for approximately 25-35 minutes in a private setting.

Procedures of the study: Participation in this study is voluntary. That is, you may decide to participate or not. You may refuse not to respond to a question that you feel not to respond to, and end the interview session at any time. All responses will be kept confidential and will be used only for this study. Only people working in this research study will have access to the

information. Your name will not be written on this form, and will never be used in connection with any of the information as code number will be used to identify your responses.

Benefits: There are no direct benefits for your participation. However, the information you provide will help the policymakers to improve the implementation context of the occupational health and safety policy with the wellbeing of the workers and their families. No harm is expected as a result of participation in this study and you can ask the interviewer questions any time during the study.

Whom to Contact: In case of any question or query concerning this study, please contact the principal investigator, Abdulrahim Mohamed (MSc. PMMEH) from MUHAS, P. O. BOX 1923, Dar es Salaam, mobile number 0716513890, Or my supervisor Dr. Hussein Mohamed, lecture at MUHAS, mobile 0714217172. If you have any questions about your rights as a participant you may contact Dr. Bruno Sunguya, Chairperson of the research and Publications Committee, MUHAS. P.O. Box 65001, Dar es Salaam-Tanzania, Tel +2552150302-6).

I.....have read the contents of this form and Understood it, my questions have been adequately answered. I agree to participate in this study.

Signature of participant.....Date.....

Signature of researcher.....Date.....

Fomu ya ridhaa

Namba ya utambulisho.....

Utambulisho.

Habari! naitwa Abdulrahim Mohamed, ni mwanafunzi wa shahada ya uzamili ya Sayansi ya usimamizi, ufuatiliaji na tathmini ya Miradi ya Afya katika Chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili (MUHAS). Kwa niaba ya MUHAS, ninafanya utafiti kukagua utekelezaji wa sera ya usalama wa kazini na afya katika sekta zisizo rasmi katika uchongaji wa mawe kwa ajili ya kujengea wilaya ya micheweni.

Madhumuni ya Utafiti: Dhumuni la mahojiano haya katika utafiti huu ni kukusanya taarifa na habari juu ya utekelezaji wa sera ya usalama wa kazini na afya katika Sekta isiyo rasmi katika uchongaji wa mawe kwa ajili ya kujengea wilaya ya Micheweni, kujua uzoefu wa wafanyikazi juu ya sera ya afya na usalama ya ufanisi katika kuboresha ustawi wa wafanyikazi. Unaobwa kushiriki katika utafiti huu kwa sababu tunaamini kuwa una uzoefu na habari ambazo zinaweza kuwa muhimu katika utafiti huu..

Mbinu za Utafiti: Kama sehemu ya utafiti huu, tutafanya mahojiano ya kina, mhojaji atakili kwa kinasauti majibu yako. Utahojiwa kwa takribani dakika 25 hadi 35 .

Taratibu za utafiti. Ushiriki wako kwenye utafiti huu ni wa hiari. Hii inamaanisha kuwa hutakiwi kushiriki ikiwa hutokuwa tayari kufanya hivyo. Waweza kukataa kujibu swali lolote ambalo hujisikii kulijibu, na pia unaweza kusitisha mahojiano wakati wowote. Taarifa utakazotoa ni siri na zitatumika tuu kwa ajili ya utafiti. Watu wanao husika na utafiti huu ndiyo wanaweza kuzipata taarifa hizi. Jina lako halitaandikwa kwenye fomu hii na halitahusishwa na taarifa, namba za siri zitatumika kutambulisha taarifa ulizotoa.

Faida: Hakuna faida za moja kwa moja utakazopata kwa ushiriki wako. Hata hivyo, taarifa utakazotoa zitaaidia watunga sharia za usalama na afya sehemu za kazi katika kuimarisha utekelezaji na matumizi ya sera ili kuboresha usalama na afya za wafanyakazi katika sekta zisizo kuwa rasmi. Hakuna hatari zozote zinazoweza kukupata kwa kushiriki wako kwenye utafiti huu. Waweza kumuuliza mhojaji maswali wakati wote wa utafiti.

Mawasiliano: Kama utahitaji ufafanuzi zaidi juu ya utafiti huu, usisite kuwasiliana na Mtafiti Mkuu Abdulrahim Mohamed, mwanafunzi wa shahada ya uzamili ya sayansi ya usimamizi, ufuatiliaji na tathmini ya Miradi ya Afya (MSc. PMMEH) katika chuo kikuu cha Afya na Sayansi Shirkishi, Muhimbili S. L. P 65001, Dar es Salaam au namba ya kiganjani 0716513890.

Pia, unaweza kuwasiliana na msimamizi wangu katika utafiti huu, Dk. Hussein Mohamed , muhadhiri wa chuo cha MUHAS, kwa simu ya kiganjani 0714217172. Kama una swali juu ya stahiki zako unaweza kuwasiliana na Dk. Bruno Sunguya, ambaye ni mwenyekiti wa kamati ya Utafiti na Machapisho, S. L. P 65001, Chuo kikuu cha Afya na Sayansi Shirkishi, Muhimbili S. L. P 65001, Dar es Salaam au namba +25521503026.

MimiNimesoma/nimesikia na kuelewa madhumuni ya utafiti huu na maswali yangu yamejibiwa ipasavyo. Hivyo, nimeridhia kwa hiari yangu kushiriki.

Saini ya mshiriki..... Tarehe.....

Saini ya mtafiti Tarehe.....



SERIKALI YA MAPINDUZI YA ZANZIBAR



UNITED REPUBLIC OF TANZANIA
 MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
 MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
**OFFICE OF THE DIRECTOR – POSTGRADUATE
 STUDIES**



In reply quote;

Ref. No. HD/MUH/T.406/2018

29th January, 2021

The District Executive Director,
 P.O. Box 395,
MICHEWENI-ZANZIBAR,

Re: INTRODUCTION LETTER

The bearer of this letter is Abdulrahim Mohamed Suleiman, a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MSc. Project Management Monitoring Evaluation in Health.

As part of his studies he intends to do a study titled: **“Implementation of Zanzibar Occupational Safety and Health Policy on Informal Sector: A Case Study of Manual Stone Crushing at Micheweni District, Pemba-Tanzania.”**

The research has been approved by the Chairman of University Senate.

Kindly provide him the necessary assistance to facilitate the conduct of his research.

We thank you for your cooperation.

Ms. Victoria Mwanilwa

For: DIRECTOR, POSTGRADUATE STUDIES

cc: Dean, School of Public Health and Social Sciences, **MUHAS**
 cc: Abdulrahim Mohamed Suleiman

REVOLUTIONARY GOVERNMENT OF ZANZIBAR

SECRETARY
ZANZIBAR RESEARCH COMMITTEE
P. O Box 239
Tel: 2230806
FAX: 2233788



RESEARCH/FILMING PERMIT
(This Permit is only Applicable in
Zanzibar for a duration specified)

SECTION

Name:	Abdulrahim Mohammed Suleiman
Sex	Male
Date and Place of Birth	15/01/1993
Nationality:	Tanzanian
Passport Number:	-
Date and Place of Issue	-
Date of arrival in Zanzibar	-
Expected date of departure	-
Duration of study	One Month
Research Tittles	Implementation of Zanzibar Occupational Safety and Health Policy on Informal Sector: A Case Study at Micheweni District Pemba
Full address of Sponsor	Magomeni Zanzibar

Name of the authorizing officer:

Abdalla M. Denge

Signature and seal:

Institution:

Office of Chief Government Statistician

Address:

P.O. Box 2321
Zanzibar.

Date:

03/02/2021



SERIKALI YA MAPINDUZI YA ZANZIBAR

OFISI YA RAIS TAWALA ZA MIKOA SERIKALI
NA IDARA MAALUM ZA SMZ

OFISI YA MKUU WA WILAYA
YA MICHEWENI
SLP 50 MICHEWENI - PEMBA.

REF.NO.OMWM/OR/TMISMI/P/F/VOL.1/91

18/02/2021

MKURUGENZI MKUU WA SHAHADA YA UZAMILI
CHUO KIKUU CHA MUHIMBILI
SLP 65001
DAR ES SALAAM
TANZANIA.

YAH: RUHUSA YA KUFANYA UTAFITI

Kwa heshima naomba uhusike na mada ya hapo juu.

Ofisi ya Mkuu wa Wilaya ya Micheweni imemruhusu Ndg. **Abdulrahman Mohammed Sulciman** mwanafunzi kutoka **Chuo kikuu cha Sayansi za Afya na tiba Shirikishi Muhimbili** anaesomea shahada ya **Uzamili** katika fani ya **Usimamizi wa Miradi, ufuatiliaji na Tathmini katika Afya**, kufanya utafiti katika mada inayohusiana na **"Implementation of Zanzibar Occupational safety and health policy on informal Sector, A case study of Manual stone Crushing at Micheweni District Pemba"** Utafiti huu unatarajiwa kufanyika kuanzia tarehe **04/02/2021** hadi **04/03/2021**.

Hivyo basi ofisi ipo tayari kutoa mashirikiano ya dhati kwa mwanafunzi huyo.

Mara baada ya kukamilisha utafiti huo Ofisi inamtaka mwanafunzi kuwasilisha nakala ya ripoti ya utafiti huo Ofisi ya Mkuu wa Wilaya ya Micheweni Pemba.

Nategemea mashirikiano ya pamoja.



KNY: MKUU WA WILAYA

MICHEWENI-PEMBA