COMMUNITY BASED ORGANIZATIONS' INVOLVEMENT IN SOLID WASTE MANAGEMENT IN MOROGORO MUNICIPALITY, TANZANIA

COMMUNITY BASED ORGANIZATIONS' INVOLVEMENT IN SOLID WASTE MANAGEMENT IN MOROGORO MUNICIPALITY, TANZANIA

By

Stephano Mpollo

A dissertation submitted to the School of Public Administration and Management in Partial Fulfillment of the Requirements for the Master degree of Public Administration (MPA) of Mzumbe University

2017

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University a dissertation entitled**, Community Based Organizations' Involvement in Solid Waste Management in Morogoro municipality, Tanzania** in partial fulfillment of the requirements for the Master degree of public administration of Mzumbe University.

.....

Major Supervisor

.....

Internal Supervisor

.....

External Supervisor

.....

Accepted for the Board of Faculty of Public Administration and Management (SOPAM)

.....

DEAN/DIRECTOR, FACULT/DIRECTORATE/SCHOOL/ BOARD

DECLARATION
AND
COPY RIGHT

Stephano Silvin Mpollo; I declare that the dissertation is my own original work and that it has not been presented and will not be presented to any university out of Mzumbe university in a similar or any other degree awards.

Signature _____

Date _____

COPYRIGHT

ACKNOWLEDGEMENT

First of all, I would like to express my gratitude to my supervisor Miss, Rukia Pazzi, for guiding me in writing this dissertation. Her scholarly guidance, constructive comments and critical revision of the drafts made it possible for me to complete this dissertation. I also thank Dr. Wilfred Uronu Lameck for his useful comments and invaluable suggestions earlier in the initial stages of my project and all staff of the Department of public administration and management who assisted me in diverse ways. Secondly, I like to thank officials from the Department of Environment and Health at Morogoro Municipal Council (MMC).I also like to express my sincere gratitude to Mr. Mkasi, the chairman of all CBOs of Morogoro Municipality for his assistance and support during my data collection exercise. My appreciation also goes to wards' officials and councillors of Mji Mkuu and Kingo. Special thanks also go to Mr Ezylon from Health Department of Morogoro Municipality and his fellows for their support .I like also to thank my fellow students in the Masters of Public Administration 2015/2017 class for their moral support and friendship throughout our studies. Lastly, to my young brother (Faraja) and his sons Steven and Alex, the moral support that you always extended to me cannot pass unnoticed. It is my prayers that God almighty rewards you all abundantly

DEDICATION

This work is dedicated to my Mother Fransisca Barnaba Haule; words are not able to describe the feeling I have for you. All your efforts and sacrifice in making sure we, as a family lives a happy and healthy life and that is the reasons which enabled me to make it this far in education, Thanks my mother!

.

LIST OF ABREVIATIONS

CAT	Collective Actions Theory
CBOs	Community Based Organizations
DCC	Dhaka City Cooperation
EPM	Environmental Planning Management
FGD	Focus Group Discussion
KAWWS	Karachi Administrative Women's Welfare Society
LGAs	Local Government Authorities
MHO	Municpal Health Officer
MMC	Morogoro Municipal Council
MSWM	Municipal Solid Waste Management
MUTAMO	*Mpango wa Kudhibiti Taka Ngumu Morogoro* (Morogoro Solid Waste Management Programme)
NGOs	Non-Governmental Organizations
SCP	Sustainable Cities Programme
SIDA	Swedish Development Agent
SUMO	Sustainable Morogoro Programme
SWM	Solid Waste Management
UN	United Nations
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UWEP	Urban West Expertise Programme
WEO	Ward Executive Officer
WHO	Ward Health Officer

ABSTRACT

This study focused on the CBOs' involvement in solid waste management in two selected wards of Morogoro Municipality. The rationale for selecting the municipality is that her urban is among the dirtiest urban areas in Tanzania and Africa, there are enormous scattered CBOs in the municipality based on SWM especially in the collection and transportation of solid wastes. Specifically, the study investigated factors that facilitate or impede CBO effectiveness in SWM, the main target was on administrative, political and social operation factors that facilitate or impede CBOs' effectiveness in solid waste management. A case study approach was used; purposive (deliberate) and convenience sampling techniques were used to select 33 respondents who included Municipal Health Officer, Ward Health Officers, Ward Executive Officers, Councillors, Streets' Chairmen, CBOs Leaders and CBOs Members who participated in the study. Data were collected using interview, FGD and observation. Content analysis was used to analyze the data collected.

The findings showed that CBOs effectiveness on SWM is influenced by various factors which are administrative, political and social operation factors. There was the relationship between the effectiveness of CBO in Solid waste management and its related factors. Administration, political and social operation factors have influence on solid waste management. When they are regarded positively they result into effective SWM in wards where CBOs operate, but when they are disregarded, the effectiveness of CBOs in SWM cannot easily be experienced and attained in the wards as well as municipality. CBOs involvement in solid waste management is widely seen as having an important role in supporting environmental sustainability and healthier community. For that reason, appropriate measures are important to be drawn from CBOs in proper solid waste management. Moreover, a better management of solid waste would reduce the possibility of distracting environment. Generally speaking, solid waste management can be handled well through increasing the importance of CBOs.

TABLE OF CONTENTS

LIST OF TABLES

.

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER ONE
INTRODUCTION

1.1 Introduction

This chapter presents the background of the study, a statement of the problem, purpose of the study, objectives of the study, research questions, and scope of the study and the significance of the study.

1.1.2 Background to the problem

Involving community based organizations in provision of solid waste services in African countries arose in the mid-1990s. The growths in interests in CBOs appeared simultaneously with the rise of neo-liberal economic policies in developing countries of the African continent that were championed by the international financial institutions in 1980s (World Bank, 1995). The low performance of government in meeting the social and economic requirements of the community has also been identified as the forces behind the proliferation of community based organizations (CBOs) in the new millennium (Abegunde, 2009). Neoliberal economic policies became widespread, and one of its targets is reducing the role of the state in offering social services including solid waste management service, with the expectation that private sectors including CBOs would fulfil those roles vacated by the retrenching state.

In Africa CBOs are involved in collection, recycling and disposal of solid wastes in the urban areas (Tukahirwa 2011; Oberlin 2011, Okot-Okumu & Nyenje 2011; Liyala 2011). CBOs target mainly the less privileged urban communities where they serve more than half the population compared to urban local authorities and private companies combined (Okomu, 2011).In East Africa CBOs are well established in cities such as Nairobi and Dar es Salaam compared to Kampala where they target mainly urban poor solid waste management (Tukahirwa, 2011).

CBOs are challenged by many forces in managing SW, including poor resource mobilization and fundraising. Many CBOs depend on external donor funding and resources to run their organizations but unfortunately there are a lot of competitions for

resources and finances (Batti,2014).There are various ways CBOs have tried to address the challenge like understanding the resource mobilization cycle and external environment, not only those but also formation of a resource mobilization teams or committees, which will over-see resource mobilization efforts and commit themselves to ensure board member involvement. In many cases the sustainability of a CBO is depended on how well it can compete with other CBOs and on how good it is looking for other ways to source for resources. According to Li, (2011), raising funds has become an important aspect for CBOs. Variations in resources among CBOs have direct impacts on the level and quality of service delivered by CBOs in SWM.

In Tanzania, CBOs have been introduced by the name 'community participation' since the 1960, however much emphasis has been given in the late 1990s. The reasons behind their introduction in provision of services including SWM include the combination of neo-liberal policies and weak government capacity to handle solid wastes. In other perspective, CBOs' involvement is driven by the fact that the organized community can be empowered and technically supported more rapidly than individuals (UNHCS and Tunner, 1986). CBOs had been written into state programs and policies, such as the National Water Policy (URT, 2002), and their merits have been articulated by political actors ranging from the LGAs to the ministerial level.

Dill, (2010), stated that the government thought that by involving CBOs, primarily will get enough resources for development activities through mobilization of local resources in LGAs. The government is thinking that most of the resources for development are from the communities, therefore these CBOs will endeavor to make sure that those resources are properly tapped, utilized, mainstreamed into the processes of development. Through CBOs many LGAs in Tanzania improved sanitation, as studies by Morgan, (2000) and Salha and Mansoor, (2006) observed that before CBOs' involvement in 1991 Dar es salaam city produced 1400 tonnes of SW in a day and only 5% was being collected, but by 2006 after CBOs' interventions in solid waste management, service covered 44 of 73 city wards; daily solid waste generation was estimated to be 2500 tonnes and 48% of all waste was collected.

The ways in which CBOs involve in solid waste management services in LGAs in Tanzania in most cases takes the form of partnership with the LGAs. Therefore the government here had a role to play in partnership is SWM service with CBOs (Poncelet, 2000; Linder and Rosenau, 2000; Glasbergen et al., 2007).This may offer a useful collaboration in managing solid waste in urban centers.

Until the moment CBOs' activities in managing solid wastes have been widespread in many LGAs, yet very little is known about factors that attribute to the effectiveness of CBOs and their sustainability in SWM. It prompts investigation on the factors that facilitate or impede CBOs' effectiveness in managing solid wastes and finally to add knowledge to the expanding municipal solid waste management in the context of Morogoro municipality. The knowledge will contribute to the expansion of research works on how to empower CBOs which belongs to poor communities in Tanzania with appropriate skills and knowledge to all actors for sustainable SWM in their localities.

1.2 Statement of the Problem

Despite the initiatives taken by the Tanzanian government to manage solid wastes in LGAs through involving CBOs, there is a lot to be done particularly at the grass roots levels (ward level) where in most cases the CBOs originate. There is not adequate knowledge about various factors which contribute to the effectiveness of CBOs in SWM in grass roots despite the fact that there are many rules and regulations guiding CBOs to effective handling of solid wastes. Yet, experience shows that waste management by CBOs levels is low in many LGAs in Tanzanian including Morogoro municipal wards . That results in waste accumulations that cause environmental degradation and health hazard. The studies showed that CBOs' roles in handling solid waste is not effectively succeeded to manage solid wastes (Kalwan,2009) and MMC,(2016), that some wards CBOs are doing well in managing solid waste, but other wards the situation is not good.

The study investigated the factors that facilitate or impede effectiveness of CBOs in SWM in Morogoro municipal's wards, through generating information on various factors which contribute to effective CBOs in SWM with specific reference to

administrative, political social operational areas which seem to be flexible and unpredictable. This raises the researcher's need to study in detail those factors in Morogoro municipal's wards and at the end to come up with practical justification on the factors that facilitate or impede CBOs effectiveness in SWM in Morogoro municipality. The results will be expanded to be used in recommending effective CBOs involvement in SWM for sustainability of the environment in Morogoro, Tanzania and elsewhere.

1.3 Research objectives

1.3.1 General objective of study

The main objective of this study was to examine the factors that facilitate or impede CBOs' effectiveness in solid waste management in selected wards of Morogoro Municipality.

1.3.2 Specific objectives

The specific objectives of the study were;

i. To examine how administrative factors facilitate or impede CBOs' effectiveness in solid waste management in selected wards of Morogoro Municipality.
ii. To determine the extent to which political factors facilitate or impede CBOs' effectiveness in solid waste management in the selected wards of Morogoro Municipality.
iii. To examine how social operational factors facilitate or impede CBOs effectiveness in solid waste management in selected wards of Morogoro Municipality.

1.4 Research questions

i. How do administrative factors facilitate or impede CBOs' effectiveness in solid waste management in selected wards of Mororgoro Municipality?
ii. To what extent do political factors facilitate or impede CBO's effectiveness in solid waste management in the selected wards of Morogoro Municipality?
iii. How do social, operational factors facilitate or impede CBOs effectiveness in solid waste management in selected wards of Morogoro Municipality?

1.5 Significance of the Study

The study added knowledge to the expanding municipal solid waste management in the context of Morogoro Municipality. The knowledge will contribute to the expansion of research works on how to empower CBOs which belong to poor communities in Tanzania with appropriate skills and knowledge to the administrators, local community and politicians in LGAs to affect positively SWM projects or activities done by CBOs in their areas of jurisdiction for collective benefits and environmental sustainability**.**

1.6 Limitation of study

The study was faced with some of problems, in particular financial resources, limited time, human and physical problems. The problem which faced the process of investigation were observed and solved. Financial and limited time problems were solved by employing the use of case study design where few respondents were taken. Human problems are related to the unpredictable behaviour of the respondents which have got impact in the aspect of cooperation in data collection were solved by careful observation of the ethical rules of investigations for better fulfillment of the study

1.7 Delimitation of the study

The scope of the study was CBOs involved in solid waste management, especially in the collection and transportation of solid waste in Morogoro Municipality. The study included CBOs involved in municipal solid waste management, especially those which were officially recognized by MMC and her semi-autonomous agencies (LGAs). The study did not cover the whole municipal, only two wards were taken as representative of others since involvement of CBOs in SWM was nearly the same in all wards in MMC.

1.8 Definitions of terms

Solid wastes

Solid wastes are unwanted solid materials at a point of generation which do not have immediate use (Chandrappa and Bhusan, 2012). They include residual materials from domestic, commercial, industrial, street cleansing, institutions ,nuclear, agricultural and

recreational areas which cannot be discharged directly or after treatment to the surroundings or environment, Example plastic bags, glasses, papers and litters.

Solid waste management

Unissa and Bhupatthi, (2013) solid waste management is the collection, transportation, dispositions and managing or monitoring of solid materials. It is related to materials produced by man activities and all the process generally undertaken to reduce its effects on health, the environment or aesthetic. It is also involves proper treatment of wastes before disposal and segregation of different solid wastes, treating and disposing of toxic wastes, recycling non-degradable wastes, converting degradable wastes into compost or energy or so on.

Community based organizations (CBOs)

Houston, (1958) defines CBO as a community based organizations consist of the number of people that went through the process of community organization consciously or unconsciously. They are private, public or charitable organizations involved in addressing the social and economic wants of individuals and groups in a defined locality**.**

1.9 Organization of the dissertation

This dissertation is organized into five chapters. Chapter one is about an introduction to the study. It presents the background of the study, a statement of the problem, the main and specific objectives of the study, research questions, research hypothesis, and significance of the study, delimitation of the study and the definitions of the important terms used in the study. Chapter two presents the literature review, which have got a theoretical part of the study, conceptual literature review and literature review from earlier studies and synthesis or research gap. This chapter also presents the conceptual frameworks and operationalization of variables and of the study. Chapter three outlines the study design, the target population, methods of data collection, reliability and validity of the research instruments and data collection procedures. The chapter also

includes the ethical considerations of the study, data analysis. Chapter four contains presentation and discussions of findings on factors which facilitate or impede CBOs effectiveness in SWM. Chapter five includes summary of the findings, conclusion and recommendations.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter presents the theoretical literature review and empirical literature review. The chapter is divided into four major parts; these include theoretical literature review, empirical literature review, and conceptual framework of the study, and synthesis or research gap. The aim of this chapter is to increase the researcher understanding on what others have done on the study topic and to get a gap which drives the need for further studies.

2.1 Theoretical review of literature

Theories are formulated in order to explain, predict, and understand phenomena and, in many ways to challenge and extend the knowledge which exist, within the limits of the critical bounding assumptions. It is the structures that can bring or support a research study theory. The theoretical frameworks introduce and describe the theory that attempts to explain the research problem under study (William, 2006).The study employed system theory and governance and stakeholder theory.

2.1.1 System theory and governance

Bertalanffy (1962) explained systems theory as a working hypothesis, the main function of which is to give out a theoretical model for predicting, explaining, and controlling phenomenon. Hartman (2010) observes that all organisations consist of processing inputs and outputs with internal and external systems and subsystems which is important in providing a functional overview of organizations. Therefore, in managing solid waste effectively CBOs need functional systems to manage well their projects. Kuhn (1974), also states that systems need to be controlled because failure of one system leads to failure of other systems. CBOs need good governance systems which ensure that there is transparency and accountability for sustainability of themselves and the entire community.

The theory looks an organization as a social system consists of individuals who cooperate within a formal framework, drawing resources, people and finances to produce outputs. Good governance of community based organizations will enable efficient and effective management of their projects and other resources in order to get maxim outputs. The theory addressed research questions which seeks to examine the factors (administrative/governance, politics and social operational) how facilitate or impede effectiveness of CBOs projects involved in solid waste management.

2.1.2 Stakeholder Theory

CBOs members, politicians, government officials and society are main stakeholders of CBOs' projects therefore it is very necessary to involve all of them in solid waste management projects functioning from the beginning. Also stakeholder's theory argues that every legitimate individual or group is participating in the activities of firms or organizations by doing so, they obtain benefits, and that the priority of the interest of all legitimate stakeholders is not driven by self-evident (Donaldson, and Preston, 1995). The theory pays equal credence not only to internal and external stakeholders, but also employees, managers and owners as well as financiers, suppliers, customers, governments, community and special interest groups.

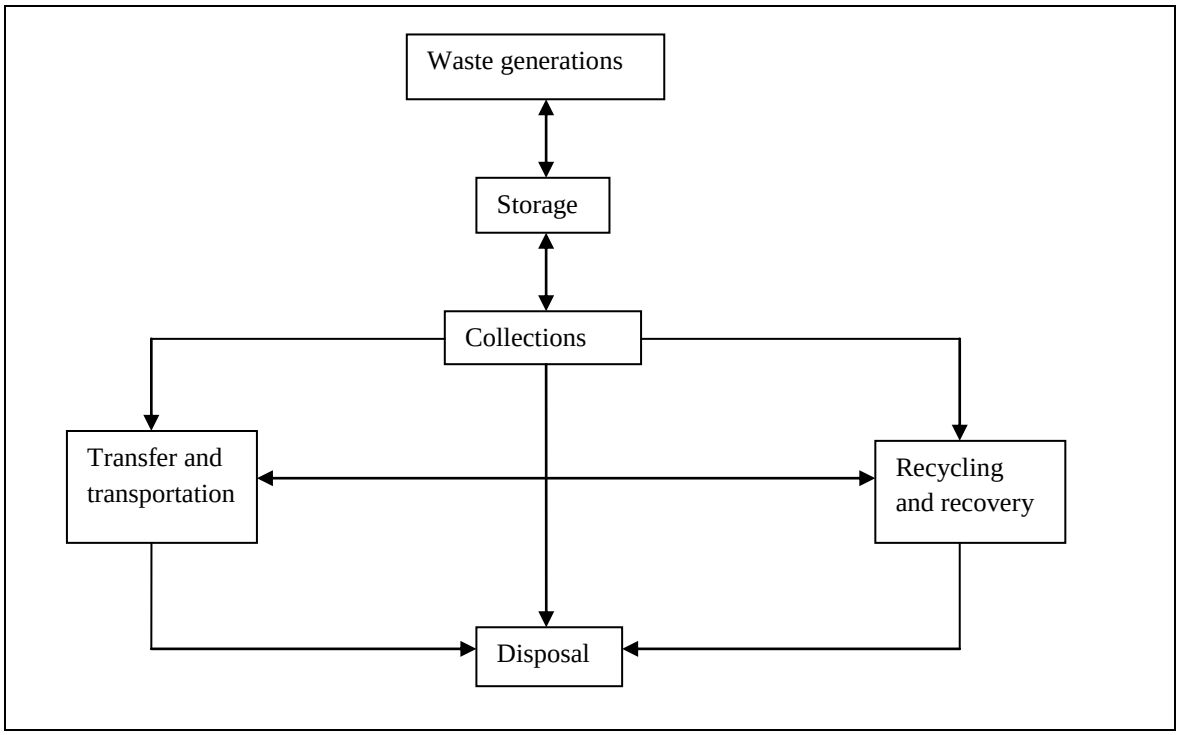
Community participation enhances social cohesion because they recognize the value of working in partnership with each other and organizations. It also adds economic value both through the mobilization of voluntary contributions to deliver regeneration and through skills development, which creates the opportunities for employment and an increase in community wealth, gives residents the opportunity to develop the skills and networks that are important in addressing social exclusion. CBOs are to ensure the community members voluntarily and actively participate in their projects from the beginning. Also, this theory emphasises that the community members also benefit through their participation in managing solid wastes.

2.2 The concept of solid waste management

Solid waste management involves the process such as the collecting, sorting, treating, and disposing of solid materials that is discarded because it has served its purpose or is no longer useful for human use. The tasks of solid waste management present complex technical challenges. Management of solid waste minimizes or eliminates adverse effects on the environment and human health and supports economic development and improvement of life quality (Zubrugg, 1999). Various processes are involved in effective solid waste management for a municipality. Those include monitoring, collection, transport, processing, recycling and disposal of solid wastes.

Zubrugg, (1999) identified the factors for proper solid waste management that vary according to location and that should be regarded in the design of systems of solid waste management. These include awareness and attitude all steps in solid waste management starting from household storage to segregation, amount and composition recycling, collection frequency, the amount of littering, willingness to pay for waste management depend on public awareness and participation and institutions and legislation standards and restrictions which may hinder the technology options that can be taken into considerations for proper solid waste management.

Figure: 2.1 Solid waste management system



Source; Adapted and modified from Maloba, (2012)

The figure 2:1 above shows the key elements in the management of solid wastes which include generation, storage, collection, transfer and transport, recycling, recovery and final disposal. This implies that when wastes are generated they are first stored in either dustbins or skips located in streets or outsides community houses. They are then collected and finally disposed of in the landfill. Also, when wastes are collected, they can be transferred from small collection points by equipment like the tricycle to a bigger truck for final disposal. On the other hand wastes collected may be processed or recycled and recovered for materials so that to be reused. The elements are further elaborated below as follow.

2.2.2 Types and components of solid waste

Solid waste generated consists of many materials of different sources. Some can be burnt, some cannot. Some are recycled, some are not. Therefore a detailed understanding of the composition of solid wastes will show the management methods which will be

applied. Solid wastes are composed of combustibles and non-combustible material. The combustible materials consist of paper, plastics, debris from yard, food waste, wood, textiles, grass, leaves, and other organic materials while on combustibles include glass, metal, bones, leather, stones and aluminium (Zerbock, 2003).

Waste generations encompass activities where the materials are identified as no longer being of value and are either thrown away or gathered together for disposition (Hoomweg et al, 1999). UNEP (2009), in 2006 stated that the total amount of municipal solid waste (MSW) generated in the world reaches 2.02 billion tons, representing a 7 % annual increase since 2003. Also, it is further estimated that between 2007 and 2011, world generation of municipal waste will rise by 37.3%, which is equivalent to roughly 8% increase per year (UNEP, 2009). The program also states that, as per world health organization's estimations, the total health care waste per person per year in lower income countries is from 0.5 kg to 3 kg.

2.2.2.1 Storage of solid waste

According to Tchobanoglous et al, (2002) waste storage is skimpily where solid wastes are stored before they are collected. The wastes can be stored in dustbins or skip and not thrown away indiscriminately, waste storage is of primary importance due to the aesthetic consideration. Appropriateness of the storage containers is necessary in saving labour and energy and also increasing the speed in collection and reduction of the size in crews. It is important that the containers should be functional to the type of materials and the collection vehicles used.

2.2.2.2 Collection of solid waste

The key link in the municipal solid waste management system is collection; it is often undertaken by the municipal councils or contracted out to nongovernmental organization. According to UNEP, (1996) situation waste collection coverage is not adequate as it ranges from 20 to 80% and the mid range of 40 to 50% Collection accounts for a very high fraction of all total waste management budgets with Asia

having as much as 80 percent (World Bank, 1999). In many areas house to house collection is very rare. Waste collectors, officials are responsible for collecting waste which are disposed of in public moveable containers put in strategic spots of the cities (Kreith, 1994).

2.2.2.3 Solid waste transfers and transportation

According to Kreith (1994), transfers and transportation of solid wastes involve two main steps .One is the transfer of waste from the smaller collection vehicle to the larger transport vehicle and another is the subsequent transportation of wastes, often over a long distance to final disposal sites. There are the numbers of equipment used in solid waste transportation those ranges from locally adapted equipment like carts pulled by human or animal, drawn carts like tricycles, wheel barrows, and push carts to the conventional open back truck, side and trailer. The foreign friends of urban authorities, governments, NGOs and CBOs assist in getting conventional trucks which are used in transfer and transportation of wastes.

2.2.2.4 Recycling and recovery of solid waste

Recycling means collecting, separating, processing, marketing and finally using materials that would have been discarded. Recycling is also important because it helps in reduction and reduces both the municipal and commercial costs which are invested in collection and disposal of wastes and helps in protection local environments. On the other hand the success in implementation of source reduction programs require good cooperation among all stakeholders of SWM who are businessmen, industrial owners, consumers and central and local government authorities. Technology, equipment, and facilities are the main element of processing and recovery which are used both in improving the efficiency of other functional elements and also to recover usable material; conversion products or energy from solid wastes (Tchobanoglous et al, 2002).

The recovery process, separation operations of solid wastes have been devised to recover valuable resources of solid wastes received from mixed solid wastes to transfer stations or processing plants of solid wastes (Tchobanoglous et al, 1993).

2.2.2.5 Final disposal of solid waste

Final disposal of solid waste means the ultimate fate of all solid wastes collected residential areas, industries and so forth and transported directly to the landfills. The dumping of wastes in landfills is said to be one of the oldest and definitely the most common form of ultimate waste disposal. Many landfills are nothing more than open and sometimes controlled dumps. The open dumps are featured by the absence of engineering measures, no leachate management, without consideration of landfill gas management and few, if any operational measures, including registration of users, control of the number of dipping fronts or compaction of wastes. In an examination of landfills throughout the developing world in 1997 to 1998, according to Johannessen, (1999) varying amounts of planning and engineering in municipal solid waste dumping among the various regions visited. African nations had the fewest engineered landfills with many nations often practice open dumping for solid waste disposal.

2.2.3 Major Sources of Solid Wastes Generated

According to Hoornweg and Thomas, (1999) Sources of Municipal solid waste include the waste generated from residential, commercial, industrial, agricultural, institutional, construction areas as well as those from demolition process and municipal services .In many Asian and African countries municipal solid waste include refuse from households, institutions including hospitals and hotels, market places, street sweeping and wastes from industrial and commercial establishments contribute to solid wastes (Tam and Tam, 2008). A large proportion of solid wastes produced in in most urban areas of Tanzania are originated from areas of peoples' residents and agricultural products. Solid wastes arise from practices of human being like consumption and production activities.

Agricultural wastes accumulate in market places, households, livestock markets and slaughterhouses. Agro-waste generated at market places includes the remains of fruits, vegetables, fish, livestock products, packaging materials and others resulting from value adding processes. At the household level, agro waste includes food remains and animal manure in addition to the above (Ashworth and Azevedo, 2009). Livestock markets and

slaughterhouses generate dung and other gastrointestinal wastes. Although there is no detailed information, previous studies demonstrated that agricultural waste accounts for about 70 - 80% of the urban waste generated in developing countries (Akinmoladun and Adejumo, 2011).

The rest is inorganic waste which includes plastic bags (5%), scrap metals (4%), waste papers (3%), plastic containers (2%), hospital waste (2%), bottles (2%) and other industrial wastes (2%). A good example in Dar es Salaam City markets alone contributes 1200 to 1400 tonnes of generating solid wastes daily out of which 95% are of organic origin (Mbuligwe et al., 2003). This implies that if appropriate collection, separation and processing arrangements are in place, the rotting garbage heaps that are common in market places could be turned into a valuable resource for agricultural production as well as providing income to hundreds of urban and peri-urban dwellers, especially youth and women. The composition of waste depends on a wide range of factors including food habits, cultural traditions life styles, climate and income (Vidanaarachhi et al., 2005). Waste generation rates per person depend upon the socioeconomic conditions of the particular urban society, its cultural background, climatic condition and seasonal variations. Seasonal variation may increase fresh vegetables and fruit availability, thereby giving rise to varying rates of waste generation.

2.2.4 Collection and transportation of solid waste

Collection and transportation of solid waste from households, factories, and other generation areas is a growing problem in many urban areas in the world. The rapid urbanization of many African countries contributes to the problem of SWM. According to Breez, (2012) the reliable municipal solid waste collection and transportation system is a cornerstone for better quality of waste management services. With vehicle capital costs around 100,000 US dollars and collection operating costs approximately to 50% of overall municipal budgets. An efficient and cost effective collection and transportation system has to be a main focus of solid waste management planning.

Most of rapidly growing areas of cities are at the periphery of existing settlements. Garbage dumps with their associated diseases, odour and frequent fires in some cases

would ideally be located on suitable land far away from the most densely populated areas. These areas are becoming harder to be found as population urbanize and municipal traffic increases, transportation of wastes becomes more time consuming, and therefore more expensive and less efficient. According to Meidiana ,(2010) many cities employ neighborhood level collection points, where households are responsible for transportation to the transfer points and the municipality or private enterprise transports wastes from there to the ultimate disposal location and in most cases this is fulfilled by CBOs.

Transportations of solid wastes rely much on operational vehicles, and frequent breakdowns coupled with parts shortages which may immobilize collection vehicles for extended periods of time. UNEP (1996) estimates that in West African cities up to 70% of collection and transfer vehicles may be out of action at any one time. In areas or parts of cities where there collection services are, in which wastes are removed from individual households or streets often there are is no standardized containers used for storing wastes prior to pickup. According to Boadi and Kuitunen, (2005) in Barbados, there are no containers which are designed by municipal authorities or collection companies to set out wastes ready for collection. It is the responsibility of individual residences to design some sort of collection containers and not of municipal authority of collection companies. Largely these are plastic barrels or discarded oil drums. Most municipal councils in developing nations typically have insufficient financial resource and low skills needed to cope with solid waste management problems.

Qdais, (2006) few nations have realized that the way solid waste is managed does not copy with the objectives of sustainable development). However, the majority of residents is simply placing grocery bags full of waste on the street to await collection. Sanitary and efficient waste management should ensure that all and in many cases, entire neighborhoods are sited on top of the existing landfills. For example the Smoky Mountain dump in Manila, Philippines had as many as 10,000 families residing in shacks on or adjacent to the dump residents use some form of corrosion resistant containers with lids in order to facilitate collection process.

According to UNEP, (1996). One of the major problem is that of development at or on top of landfills, many shanty towns are built from disposed waste and in some cases the entire neighbours are sited on top of existing landfill sites. Aside from the obvious health implications these concentrations of people further complicate transport and unloading procedures and present numerous safety and logistical concerns (Blight and Mbande, 1996). UNEP estimates that approximately 100,000 people currently scavenge wastes at dump sites in the Latin American region alone. In addition, many people, not only those residing near landfills, make their living from scavenging on solid waste before it enters the municipal waste stream. Street level waste picking usually removes recyclable and other high value waste items from items set out for collection.

Although these practices serve to reduce the overall quantity entering the waste stream, they often scatter waste about, compounding problems for pickup and transfer operators (Pfammatter and Schertenleib, 1996). Knowledge on the source and type of solid waste, along with data on the composition and rates of generation, is basic to the design and operation of the functional elements associated with management of solid waste. The decisions on solid waste collection, transportation and disposal cannot be reached at without knowledge of generation, density and composition. According to Mato ,(2002) the composition of solid waste in Dar es salaam were as follows; vegetable waste/organic waste (62.5%), papers (6.2%), glass (0.3%), metal (1.2%), textiles (1.2%), plastic and rubber (1.8%), bones (0.3%) and inert matter (27.3%).

Waste management, rates per person depend upon the socioeconomic condition of the particular urban society, its cultural background, climatic and seasonal variation. In most developed countries consume greater quantities of goods and hence higher rates of waste generation. Culture, history and climate influence types and consumption habits. Seasonal variations may increase fresh vegetables and fruit availability, thereby giving rise to varying rates of waste generation. According to Baruti et al. (1992), quantities of domestic solid waste generation in Dar es Salaam city alone are 870 tons per day. This figure is much higher than other sources like market sites, which generate 200 tons per day, industries 100 tons per day, and street cleaning which generate 40 tons per day.

Mato, (2002) only 35% of solid wastes generated were collected and properly disposed of in Dar es Salaam. Uncollected wastes disposed haphazardly on the streets roadsides and in open spaces. There are several some human health risks associated with solid waste handling and disposal particularly in developing countries. Cointreau, (1982) classified these risks into four main categories including the presence of human fecal matter, presence of potentially hazardous industrial waste, the decomposition of solids into constituent chemicals which contaminate air and water systems, and lastly air pollution caused by consistently burning dumps and methane release.

There is perhaps one major approach to solving the problem of municipal solid waste in Tanzania which has not been adequately explored so far, waste recycling. This approach has greatly helped to ease the problems of urban solid waste management in Uganda (Baruti et al., 1992). Apart from partial recycling of metallic wastes, there is hardly any recycling of solid waste in Tanzania. It is high time recycling could be studied and subsequently institutionalized in the waste management strategy in urban of Tanzania. One of the most potential possibilities is composting of biodegradable component of solid waste.

2.3 Community based organizations

Mtatifikolo, (1997) defines community based organizations as associations, usually unregistered, operating at small scale and in more elementary operations in small communities. Additionally, they are built from the grassroots, and their beneficiaries are their own members and 'owners' or founding members. However, Aronson Dan (1995) pointed out that the success of a project or development programs depends heavily on changes in behaviour at the community levels.

CBOs promote means of meeting desired community objectives; they also enhance increased efficiency and cost effectiveness in the projects. In the recent years the shift has occurred from a supply driven toward a demand driven approach and from central command and control to local management of resources and services. This is the

approach of the CBOs, which increases equity, empowerment and managing natural resources, providing basic infrastructure and ensuring primary SWM services.

Many CBOs in developing countries have been formed to try and perform functions which have been abandoned by the state, especially in social services example SWM services, and fill the gaps that government have failed as Africa is currently undergoing rapid change. According to Mbote, (2000) CBOs have been spurred by issues such as environmental degradation, emergence of new diseases, dwindling job opportunities, inadequate access to social services and infrastructure, marginalisation of social groups

CBOs engage mostly in primary waste collection system, separation at source experiment, implementation, and the so forth. Also, it may participate in the actual issuing of service like operations, maintenance, and in the construction of facilities. However, CBOs play an influential role in waste management system and social development processes. On the other side, organized communities also have a strong voice than individuals to enhance more improvement easily and can be organized in collaboration with gender, age, or religion.

2.3.1 Functions of CBOs at local community levels in SWM

Management of solid waste service can be handled by the prevailing community-based organization. According to UWEP (1996) CBOs in most cases engage in the management committee of a solid waste service and the main duties of this management committee can be defined as performance control of service, administration of activities, engage human resources for operation, manage fee collection, and keep treasury as well as decision making on operations.

The management committee has the duty for the administration of activities, handling the work flow, managing workforce, and matching the objectives with the available resources. Also, it has a power of decision making and controls the operation of the service. The responsible community members who initiate are involved in management and the CBO which start a waste management project also may question community

members to be involved in the management committee. A local leader like the president of a CBO also can exercise supervision on a higher level in controlling the management committee.

A CBO may meet the responsible municipal agency to integrate primary and secondary collection. In case of failed to deliver the service in the targeted area, it can exercise political pressure on the municipality and the mayor. Complaints on the secondary collection from households can be forwarded together by them to the municipality or to the management committee when the concerned complaints in the primary collection system (UWEP, 1996). However, in contacting with the community, local leaders may take part in educating, creation of awareness, control of behavior of households, and mobilizing the community for example, CBO mobilize local and foreign resources to address social problems in their areas including water, orphans, poverty issues, credit facilities, tree planting, and waste management (Gossi, 1994)

Also, CBOs may design and implement education campaigns even though it is not engaged directly in waste collection. Also, it can be engaged in several activities like promoting reuse and recycling of materials, hiring waste collections, collecting fee for waste removal, and making arrangements with local authorities (Pfammatter and Schertenleib, 1996). Moreover, CBOs can support collection service and change the behavior of households and it may have a watching function, to control the behavior of households conforms to the agreed rules and schedules. Traditional leaders on the other side are often involved in the mobilization of the community for clean-up campaign.

2.3.3 Challenges facing community Based Organizations' in solid waste management

CBOs have many challenges affecting their survival in many LGAs those include, absence of clear identity which weakens CBO stability and the legitimacy of charismatic founders in local environments usually form CBOs. Galway, (1995) revealed that there is no articulations of the vision and sense of goals of the CBO involved in SWM as an

absence of clear identity results into CBOs prone to manipulations and distortions of their development vision by powerful individuals and institutions.

Interferences from politicians also hamper smooth running of CBOs in LGAs. Surface and ground water pollutions vulnerability is very high since the CBOs are not considering environmental impact assessment when allocating disposal sites for municipal wastes as well as poor service provisions to solid waste collection vehicles. Other challenges include poor state of collection facilities and inadequate funds which militate against optimization of MSW disposal services (Roch, 2005).

Golwike (2007), CBO has taken great efforts to manage solid waste effectively in Ilala ward but still it was weak in areas like planning, mobilization of resources and management of community based solid waste. The organization operated its activities without having proper systems of community based solid waste management which to some extent hindered the achievements of group goal and objective of creating employment and income to residents of Ilala ward.

2.3.4 CBOs and solid waste management in Morogoro municipality

The municipal residents in Morogoro generate more than 300 ton of solid wastes per day, and only 45-60 % of generated wastes are collected and transported to the dumpsite (MMC, 2016). (SUMO, 2001 and MMC records, 2005) Morogoro municipal failed to provide MSWM service adequately especially due to rapid urbanization since 1990's.That drives the need for community participation in MSWM in 1986. Morogoro municipal went further to the sustainable urban program (SUMO) which aimed at building MMC's participatory capacity through community participation for sustainable MSWM where the CBOs incorporated in solid waste management under implementation of the programme introduced to LGAs known as sustainable cities programme.

MMC also has incorporate structure termed as Mpango wa Kudhibiti Taka Ngumu Mororgoro (MTAMO) in 2005 where various actors of SWM including CBOs were included with the aim of keeping wards environmentally clean for prevention of

diseases, income generation and keep the sub-wards solid waste free (MUTAMO, 2005).Many wards in MMC mobilised to form CBOs which are purposely engaged in collections, transportations and other practices of solid waste management. Until the moment MMC has got more than 40 CBOs (MMC,2016), mentioning fewer *Kikundi Cha Usafi Mji Mkuu (KIUM)* from *Mji Mkuu* ward, *Upendo* group from *Mji Mpya* ward, *TWIKINDE* from *Kingo* ward managing solid waste. The experiences shows solid waste is still challenging the MMC and CBOs responsible for SWM in few wards CBOs are doing well while in other wards the situation is not good.

2.3.5 Factors influencing CBOs effectiveness in solid waste management

According to Al-Khatib et al (2009), municipalities have been in charge of providing services related to solid waste management in many developing nations. The responsibility of the government is to organize and control the public sanitation systems which include provision of infrastructures for the collection, transportation, treatments and disposal of wastes. On other hand with rapidly increase in population and economic development, many LGAs in Africa and other developing nations in the world are struggling to keep their solid waste management systems to working in an effective and sustainable manners. The idea of involving CBOs to SWM service provision is the best option since it cut expenses of LGAs; however CBOs are still challenged on their effectiveness in handling solid wastes. The effectiveness of these CBOs in handling solid wastes are influenced by many factors including, political, financial, administrative, social operational, individual and legal factors.

2.3.5.1 Finance or budgetary factor

In order for CBOs to carry SWM services effectively and efficiency, there should be a lot of money invested in buying infrastructures necessary for SWM including cleanliness gears, transportation vehicles and paying human resource wages. When there is enough and sufficient budget to support CBOs in their activities of SWM, there is the possibility of facilitating them to be more effective in handling solid wastes. However problems related to poor budget are always felt in many developing nations where

resources are not enough to afford SWM processes and distributions of the available scarcely funds are also mismanaged.

Municipal councils and CBOs are working hard to achieve the required standard and coverage of services related to SWM because of financial constraints experienced in LGAs. In Palestine for example stated that on average up to 50% of urban residents lack collection services especially in urban areas of low and middle income nations. According to Al-Khatib et al, (2010) the development of sustainable solid waste management systems in developing nations have limited opportunities as government because of limited budgets and proper waste collection is also overlooked. The large municipal budget for waste management practices is used in paying an over staffed and under qualified human resources (Henry et al, 2006), and not directed to make improvements in repairing and maintaining the infrastructure of solid waste management. Many CBOs that are engaged in provision of collection services in African countries suffer from many forms of inadequacies. The common among these is insufficient funds needed to procure collection facilities like containers, vehicles, loading and sweeping equipments and workers' kits.

According to Coad (2011), shortage of funds may also restrict some operational expenditure such as fuel and maintenance, or the purchase of spare parts of vehicles. In fact, in most developing nations, this latter challenge tends to slow down daily operations. Inadequacies of vehicles, supervisors, and solid waste collection crews were also the major obstacles to the management of solid waste (Mwanthi and Nyabola, 1997). These problems were attributable to financial constraints and possibly to misappropriation of finances within the offices that manage solid waste.

2.3.5.2 Social operation factors

According to Urban Waste Expertise Programme, (1996) social operation include negotiation between management and remuneration for different operators for less attractive work .These include collection of wastes, sorting as well as transportation. In provision of SWM services coverage of the required area is very important aspect.

According to UWEP Working Document 2, (1996) Social operation factors include workers' wages, space and working conditions (facilities and financial resources) as explained below.

Salary or wage of operators

There is a difference between remuneration of operation and of management of community based solid waste management projects, when salaries or wages to CBOs members is good SWM service by CBOs may be effective. Operational activities (collection of waste, sorting, recycling) are almost entirely done on the basis of profit, that is to say a personal salary, because work is hard and status is low. In Ghana workers of a composting plant were first given 'food for work', but later on they received a salary, because otherwise the project staff could not attract enough workers.

The salary of operators of waste collection services is often low, because waste collectors derive their income from waste collection fees and from the sale of recyclables. Both do not yield much revenue in low-income neighbourhoods. Fee collection is not high, because households in low-income neighbourhoods are not able to pay high fees. The waste that remains to be collected is often worthless due to its high organic content. Another reason for the low salary of operators of waste collection services is the size of coverage areas, which is often too small to earn an adequate income.

The solution, which is practised in some Indonesian projects, are cross-subsidies, either by serving different income groups or by serving different generators of waste (households, industries, commercial business, institutions). Different groups can be asked different fees. This increase in the coverage area and in the number of customers can provide the operators with extra income. Another incentive may be to provide a group of operators with a strong internal solidarity with special benefits. In Kenya a special system exists: youth sports teams can earn points in the league with neighbourhood cleaning activities. The whole operation is managed by neighbourhood

officials and youth leaders together. This is a benefit that accrues to the team, but which is quite effective in stimulating young individuals.

Status and working conditions

The low status of waste collectors may be caused by their low salary, by the nature of their work and sometimes by their waste-picker background. Low salaries were already explained above. The nature of their work is often considered unpleasant and filthy, not only collection but also activities such as sorting of garbage at a composting plant. Especially in India some richer households have problems with waste collectors who have formerly been waste pickers. They are suspicious of them, sometimes accuse them of theft and do not agree that they have a legitimate role in their neighbourhood. Therefore when CBOs operates in good working condition there is the possibilities of being effective.

Solution for the problem of low status is to improve the working conditions of operators by providing them with facilities, as experiences from the Philippines and Senegal show. To involve the informal sector in solid waste collection, the following incentives were used: provision of food, drink and free accommodation by junk dealers, and provision with a painted push cart and T-shirt by the implementing NGO. The local health committee, managing a solid waste management project in Senegal, provides operators and their families with medical assistance free of charge.

Reliable service

An unreliable service which does not come timely or is not handled out in accordance with the community expectations has resulted into the trust of the community in their participation and willingness to pay for the service. This might be due to lack of performance control and priority of the service when waste collection is handled out as part time activity. In the same vein, if operators have initially been waste-pickers they might lead to extra reliability problems.

Engaging in making decision seems to be motivated factor for operators to perform better. For example, in Bolivia members of micro-enterprises have a higher labour productivity and high morale than employees of municipal service who collect garbage before due to the fact that they are owners-operators of the system and they are paid in relation to achievement. This enabled them to improve the reliability of the service in relation to payment of operators more strictly to performance. This was also reflected in Chad where households started to pay waste collectors per round instead of per monthly payments.

Space

This is a very influential constraint to all composing recycling project whereby in some quarters there is no space for communal basins due to high population density. Negotiation with local NGOs and leaders to seek for site in sorting and composing seemed to be quarter head and massive media campaign in assistance with local youth groups can be used to solve people's problems. For example, in Mali delegates from the neighborhood went to the municipality to lobby for space a depot

2.3.6.3 Political Factors

Good political influence in areas where CBOs operates has got strong inputs on the CBOs activities in handling solid wastes.

Councillors' roles

At ward level where councillors are representing the peoples' voice, have got role in assisting CBOs to effective solid waste management at grassroots. Better links between political figures and the citizen has got strong justification for the existing of the CBOs. Municipal councils in which the councillors are members are responsible for providing a range of urban services, such as maintenance of public spaces, roads, and drainage, SWM can be planned as part of city- or town-wide strategies for integrated urban service delivery (Asian Development Bank, 2014). Councillors' good contributions in passing bylaws related to SWM have got impact to CBOs effectiveness. They also play a role of advocacy and mobilization of citizens who are the consumers of solid waste service. If

those are done well by councillors may result into CBOs effectiveness in managing solid wastes.

Legislations

Legislation Legislations on environmental issues include enactments and regulations comprising provisions concerned with the environment as they broadly affect land, water, and air (Nwufo, 2010). These enactments are usually enforced by some instruments such as fines, damages, and imprisonments as the case may be. Legislations greatly impact the overall success of the CBOs vested with the task of waste collection. The reason for this is not far-fetched as people tend to be law abiding when the amount to be paid as a penalty is high. Shah, (2015) studied that the compliance with the municipal solid waste rules require appropriate systems and infrastructure facilities be put in place to undertake scientific collection, management, processing and disposal of municipal waste.

However, Linden et al, (1997) identified political factor such and lack of legislation and policy conflict among levels of government/overlapping responsibilities among ten impediments to effective SWM. Those factors go together with factors like inappropriate technologies/processes, enforcement inefficiencies/non-existent illegal dumping, lack of financing, lack of training/human resource, lack of political support, rapid increase in waste generation/limited data, lack of awareness among the public, and limited land areas or land tenure issues .When those are not taken into consideration SWM by CBOs may not be well achieved.

2.3.6.4 Administrative Factors

In the study administrative factors are used synonymously with governance factors. According to Partington (1996), governance structures provide mechanisms for directing and controlling an organization to ensure that all aspects of the organization are effective within the requirements of various legislative frameworks. Accountability and transparency may affect performance of the CBO projects. Good administration facilitates CBOs effectiveness in SWM. According to Asian Development Bank (2014),

Good governance in SWM requires transparent, accountable, efficient, and effective institutions. The quality of SWM LGAs is strongly linked to the overall governance environment in a LGA and individual CBOs.

Japan International Cooperation Agency, (1998) identified several causes of the waste problem including poor government attitude towards waste management, corruption among public officials and lack of trained personnel for waste management. Ogawa (2012) argues that lack of coordination among relevant agencies often leads to different agencies being the national counterpart to various external support agencies in different solid waste management in collaborative projects without knowing of what other national agencies are doing.

In the administration of CBOs financial management is also a key aspect of CBOs effectiveness in managing solid, failure to manage finance affect CBOs negatively and this was reflected by Kleemeier (2000) who examined water projects managed by CBOs in South Africa and identified that 63% of CBOs performing badly due to mismanagement in financial issues. Hence is needed to review the financial management practices of the CBO

2.3.6.5 Community Participation

Community is the key to CBO effectiveness in SWM. There are various opinions on selecting the best factor to encourage people to participate in a CBO, including the planning and decision making process (Shukoretal, 2011). Although there are many disagreements on the different ideas, each researcher has choose this factor based on the most appropriate factors to be implemented in a field of study and, as appropriate, taking into account for this various factors. It can be concluded that the selection of success factors in community participation in solid waste management will be different depends on region, culture and community's acceptance.

Cooke-Davies (2000) argues that for effective performance of projects there should be a close cooperation between the CBOs and the entire community and they ought to work

towards the same goal and interests. The study showed supports Cooke-Davies view that for projects to perform well, there is the need to involve the community. Cooke-Davies (2000), found that community participation affects the performance of the CBO project as when the community participate in solid waste management ,make CBOs fulfil their goals of managing solid wastes, otherwise when community are not participating, CBOs fail to be effective in managing solid wastes.

Donaldson and Preston (1995) argues that community participation improves social cohesion due to the fact that they recognize the value of working in partnership with other organizations. Also, it increases economic value through the mobilization of voluntary contributions in delivering regeneration and skills development which enable the creation of employment opportunities. Moreover, it enables the increase of community wealth and gives residents the chance to develop important skills and networks that are needed to address social exclusion.

2.3.6.6 CBO's Project Management

In the study by Mwaura and Ngugi (2014) which aimed at finding out how project management practices affect the successful performance of the CBOs projects. It further sought to know whether the CBOs were aware of the project cycle, use of project management tools and techniques, planning, monitoring and evaluation. The findings showed that the majority respondents agreed that project management is important in the performance of CBO projects.

According to Klynveld Peat Markwick Goerdeler (KPMG) project management survey report (2010), in the current economic environment, value-for-money is a priority. While many businesses have cut back discretionary spend in recent times, we see others that can no longer hold off essential projects. Effective project management practices help control the added risks that project activity introduced to normal business practice. Therefore, for the CBOs to be effective in SWM, they should be managed professionally, failure leads to CBOs doing away with some of the projects by managing solid wastes.

2.4 Empirical literature review/ Literature review of earlier studies

Syed, (2005) in a study of Municipal Solid Waste Management using GIS Application in Mirpur Area of Dhaka City, Bangladesh. By Using a case study design and questionnaires and interviews as data collection tools, observed that solid waste management has become a monumental challenge in Bangladesh where CBO are agents in SWM. The findings showed that CBOs were taking initiatives by themselves to manage the rapidly increasing challenge of solid wastes. In these circumstances, the study was looking into how solid waste produced in Dhaka City especially in Kalabagan area, how the households, the house-to-house waste collectors, CBO and the Dhaka City Corporation (DCC) participated in the solid waste management process.

His findings indicated there might be some reasons, for why the households regret to receive the service of the CBOs. He also identified that CBOs were facing difficulties to throw the collected wastes to the community bins, as the bins are located at far distances. It was also pointed out that Dhaka City Cooperation sometimes do not clear the bins timely and for this reason, the CBOs waste collectors cannot throw the wastes properly.

In general, it had been seen that CBOs officials did not control the waste collectors strongly as they knew that they did not pay them well. But, it was also true that, the CBOs did not earn much to run the organization in a professional manner. The managers of the CBOs have their own job apart from the waste management business. So, this volunteer job does not get enough priority for these local managers.

A study by Mansoor and Marielle (1999), Lessons from community-based initiatives in solid waste, conducted in Faisalabad in Karachi Pakistan". This case study design study centered on a community based women organization "Karachi Administration Women's Welfare Society (KAWWS)" as a case. In the study interview, questionnaires and secondary data collection tools were used. The findings revealed that lack of regular and reliable secondary collection from the bins by municipal crews meant that waste build up continued in waste bin locations. Complaint of municipal employees failed to

improve the service, but at the end KAWWS made an arrangement with the refuse vehicle driver, paying him a regular amount to ensure reliable secondary waste collection from the area.

Their findings concluded that, the initiative thus relies upon the continued presence of KAWWS as the catalyst for change. The KAWWS has 50 members making regular contributions to group funds, and this limited membership which means there is little possibility of scaling up the programme. The continued development of the area means that there are fewer sites suitable for waste bins. People remain averse to waste bins sited very close to their homes. Waste disposal points were close to peoples' homes, and there is less need for them to contract municipal sweepers to provide an additional informal primary collection service and less time was spent on the official street sweeping and the streets became dirtier.

Larsson (2006), "Mission Impossible"; A Study of the Actor-Network of the Waste Management of Gambia". The study used a cross-sectional study design and data from both primary sources (questionnaire, interview and observations) as well as secondary sources (books and journals). The finding revealed that, Gambia was among Sub Saharan African country which is facing with major problems of collection and disposal of large amounts of waste in the country whereby the councils were responsible for the solid waste management. However, they did not receive any subventions from the Government to finance the services and CBOs were mostly interfering out where the council failed to provide a proper service in most cases by cleaning days while the enterprises mostly handling recycling.

Also, the study findings pointed out the important role of households in waste management, especially in areas where the collection was rare. It was their responsibility to transport their waste to an authorized dumpsite or in better managed areas to put out the waste at the right day and time. The findings established the reason that the cleaning services were impossible for the council to handle it alone instead, there should be a network of actors, including CBOs but trust was problematic as the findings showed

CBOs were not often trusted by the council when they asked for support and the households did not trust the Council due to the situation of corruption.

A study conducted in Uganda by Mugagga, (2006) on "The Public-Private Sector Approach to Municipal Solid Waste Management. How does it Work in Makindye Division, Kampala District". The study used a case study design where focus group discussion, interview, observations and secondary sources such as books and articles used in data collection. The finding showed that Uganda has a big problem of increased generation of waste and the increase has not been accompanied by an equivalent to the increase in the capacity of managing the waste. Also, argued that, CBOs were affected with qualities including political independence, economic rationality, efficiency, dynamism, and innovation advantages in which the public service lacks.

His finding showed that lack of money was the problem to both CBOs and the municipality which were responsible for the solid waste management. Also, he suggested the use of CBOs that would have gained a greater success where the informal sector would have been involved in the planning in case they are doing a lot of the waste services in forms of recycling. Also, Mugagga pointed out the importance of having frameworks that encourage the participation of the community to get a sustainable solid waste service. The findings recommended that there should be campaigns on SWM which would help CBOs services to become better due to the fact that people from high income areas still saw the waste as a problem while the residents in low income areas were less ignored.

Golwike, (2007) studied on the "evaluation of community based SWM project in Iringa municipality Tanzania". Using case study designs and data from focus group discussion and record review. The study's objective was to assess the effectiveness of Iringa municipality CBOs solid waste management system so as to recommend and implement sustainable interventions on Ilala community based solid waste management system. In the study assessment of procedures for SWM and benefits accrued by the community from services rendered by CBOs. The researcher in the study concluded that during the

community need assessment, it was revealed that Iringa municipality has an ineffective SWM system especially to the ward level were CBOs were operating.

Yarumba and Yarumba, (2015) in their cross-sectional study design on "Contribution of solid waste management enterprises towards women's income at household level: a case of Morogoro municipality, Tanzania". Their study presented findings on the contribution of Solid Waste Management Enterprises (SWMEs) towards women's income at a household level in Morogoro Municipality. Generally the study assessed contribution of SWMEs towards women's income at the household level. The cross sectional research design was adopted. Structured questionnaires with open and close ended questions were used to collect primary information from a sample size of 90 respondents.

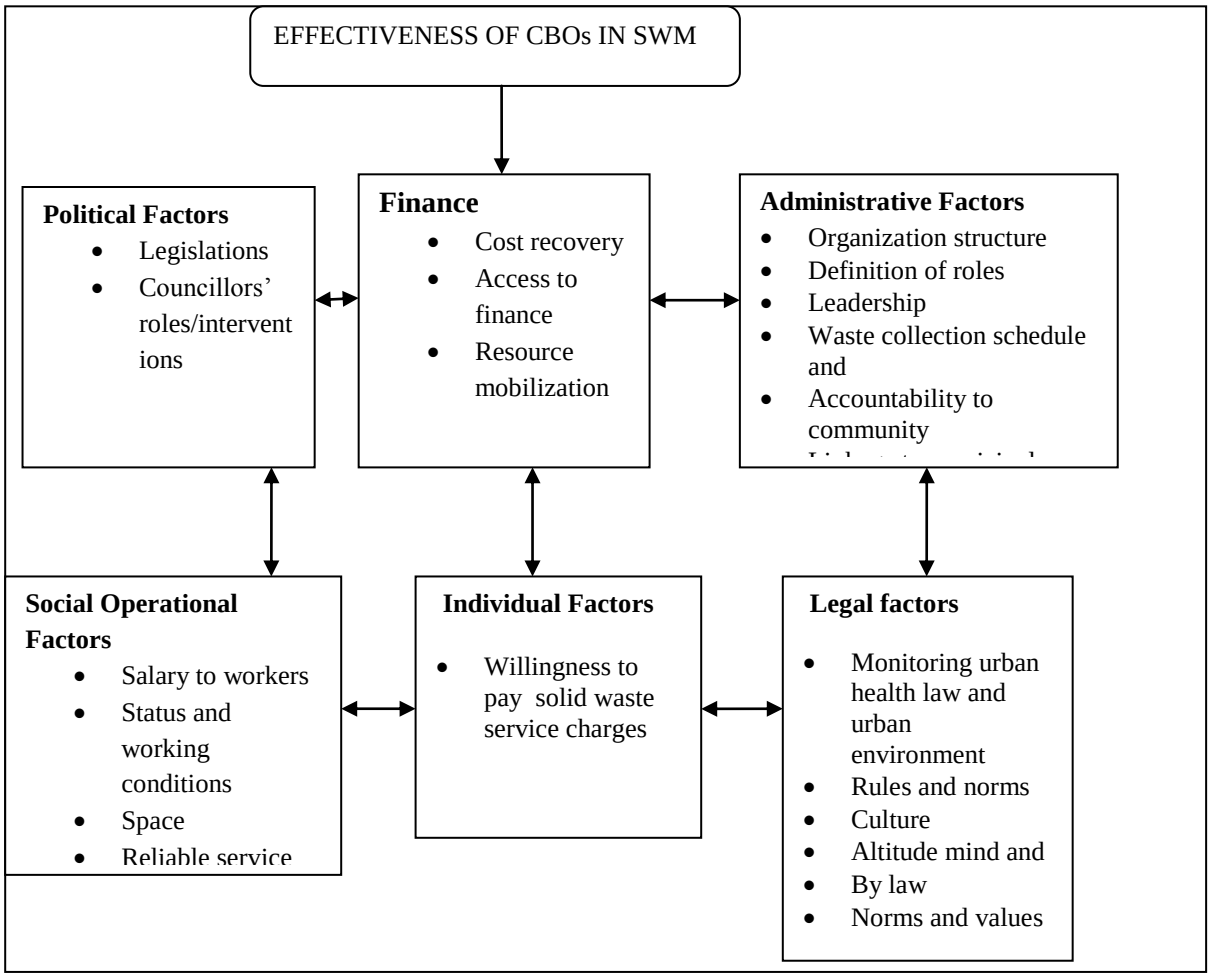
One of the conclusions on their study findings in the study area were, Solid Waste Management by *Kikundi Kazi* (cleanliness group or CBOs) was that many women were members of the CBO have got challenges toward its effectiveness. The study findings in showed that women were facing gender stereotype, lack of entrepreneurship skills related to the activities they were undertaking, hence limited them to access Labour market. Low income, lack of savings and access to formal credit inhibited them to expand investment to become diversified, lastly recommended that LGAs should institute training program for councillors and staff on collaboration with CBOs, including women because all were important stakeholders in SWM by CBOs in the municipal

Kalwan, (2009) studied on "Community Participation in municipal solid waste management in informal Settlement Morogoro Municipal". The study used mixed research approach to analyze social-economic, cultural, policy and legal factors on the sustainability of effective community participation in municipal solid waste management under market oriented. CBOs involvement was also studied and the possibilities of involving CBOs in MSWM were well examined using interview, questionnaire, observations and documentary review to collect data from two CBOs in two wards. Kalwan concluded that effective CBOs involvement in SWM had not yet

achieved to deliver required solid waste management service in the Morogoro municipal Council.

2.4 Conceptual frameworks

Figure 2.2 Conceptual frameworks



Source**:** Adapted and modified From (Kalwan, 2009 and Hoffman & Muller, 2001)

SWM by CBOs requires diverse linkages but not limited to the factors such as economic, administrative ,individual, legal political and socio-cultural linkages ,these linkages requires to boost CBOs for solid waste management in identification of the priorities, planning, operating ,designing and maintenance of community infrastructure market oriented situation (Fecade,1994).The factors such as finance is well studied and known that CBOs finencially poor and depend much on donors support and individual

factors stresses that many people are not willing to pay (Mugaga,2006). Legal factor is not easy to be studied and come up with justifications, since legal matters are always complex.

Very scarce has been done in factors such as political, social operational and administrative particularly at ward level. Still the factors have got strong influence to the sustainability of CBOs and are always challenging since they change time by time with change in both administrative position and political position .Social operation factor is also an area which is not taken seriously in many studies regardless of its content of actual peoples' activities of managing solid wastes .These factors in one way can facilitate and another way can impede CBOs effectiveness in managing solid wastes as the empirical evidence showed there was variation in SWM in Morogoro municipal wards.

Table 2.1 Operationalization of variable

Variable	Indicator	Measurement
Independent variable Political factor (Institutional framework and councillors' roles)	Councillors' roles in SWM.	Advocacy and mobilization of community supporting work of CBOs in managing solid wastes. Voicing the complaints of the community to the responsible authority (LGAs and CBOs top management) on SWM.
	Legislations/policies and bylaws of SWM	Compliances of legislations/policies and bylaws of SWM. Involvement of CBOs and street leaders in bylaws formulations. Favoulability of the Legislations/policies and bylaws of SWM
Independent variable Administrative factors	Organization structure of of MMC and CBOs in SWM	Division of roles and responsibilities in CBOs responsible for SWM.
	Management of day to day activities by CBOs.	Linkage of CBOs toward or municipal governments. Schedule of collection of solid wastes and follow-up Activities of CBOs in SWM.
Independent variable Social operation factors	Capacity of CBOs in terms of finance, human resource and equipment	The number of human resource engaging in SWM. Finance for running CBOs' activities. Equipment necessary for SWM. Number of operators Amount of the salaries/wages of CBOs' members, and the way support CBOs' members in SWM.

Source: Researcher, (2017)

2.5 Research Syntheses

The analysis of the literature review from empirical studies on CBOs involvement in solid waste management shows that, many studied focused on factors that make CBOs survive in managing solid waste as Monsoor and Marrielle, (1999) stressed CBOs depends on contributions from households and donors ,lack of professionalism in running CBOs ,however limited bin allocation allocations is also studied as challenge to CBOs effectiveness (sydey,2005).Financial constraints also studied as one stalk to CBOs sustainability and framework were suggested to in cooperate CBOs in SWM system (Mugagga, 2006).

The gender issues in CBOs involving in solid waste management were also studied by Yarumba and Yarumba, (2015) gender issues associated with CBOs involvement in solid waste management service was an important aspect to be identified . Women in many occasions constitute a good number in CBOs; their needs were to be reflected in solid waste management system. CBOs effectiveness in providing solid waste management service was studied by Golwike, (2007) and he found that CBOs in Iringa municipal-Tanzania were not effectively handle solid wastes, the factors behind ineffective were not well studied.

A study by Kalwan, (2009) on analysis of CBOs on social, economic, cultural and legal factors on the sustainability of effective CBOs participation in municipal solid waste management; The study did not come with those factors that facilitates or impede CBOs effectiveness in solid waste management. This because the study concluded that effective CBOs involved in SWM is not yet achieved in Morogoro Municipal. Therefore the factors that facilitate or impede the effectiveness of CBOs in SWM especially at ward level in areas of administration, social operation and politics, those factors need to be well studied and recognized by CBOs operating at ward level. That drove the researcher needs to investigate with them in Morogoro municipality wards, where there is mushrooming of CBOs in almost all of her wards. The study intended to examine the factors (administrative, political and social operational) that facilitate or impede CBOs in delivering SWM services and finally making suggestion on appropriate ways on how to modify the situation for sustainability of CBOs in provision of SWM services.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter presents the methodology and procedures used for data collection. It describes the research design, the area of the study, and the population of the study, sample and sampling procedures together with sample size, data collection methods and data analysis methods.

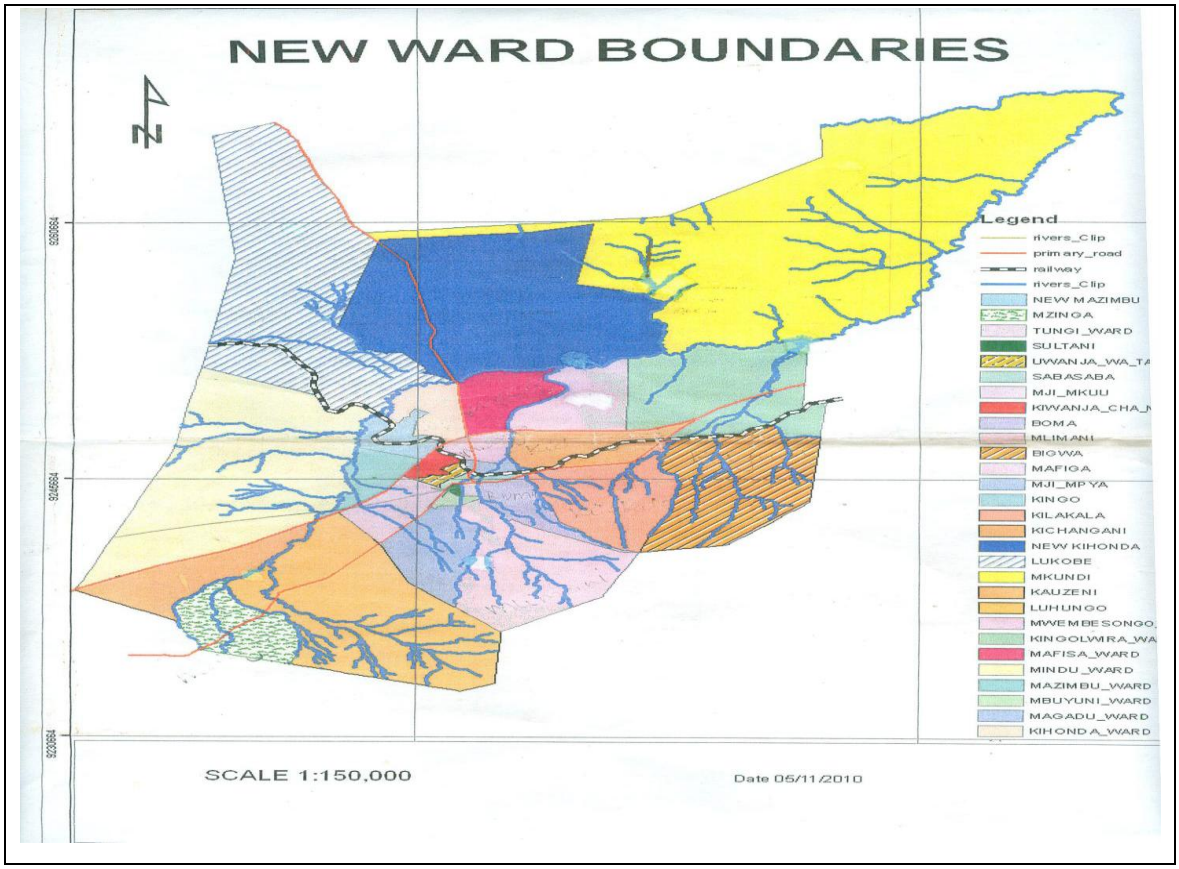
3.2 Research design

In the study, a case study design was used as the study design. This is because the design is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit, be that unit a person, a family, an institution, a cultural group or even the entire community. This helped the researcher to minimize the limitations related to financial and time resources. Not only those, but also, in the study area there were no enough hypothesis, showing the relationship between factors that impede or facilitate CBOs' effectiveness and effectiveness of solid waste management. However, the design has a danger of false generalization which is always there in view of the fact that no set rules are followed in the collection of the information and only a few units are studied (Kothari, 2004).

3.3 Area of study

The study was conducted in Mororogo municipality; the municipality is the Regional Headquarters of Morogoro region. It is also known informally as "City Without Ocean" (*Mji Kasoro Bahari*). It is one of the 9 councils of Morogoro region. The Municipality has only one division, which is sub-divided into 29 administrative wards and 295 streets. It is about 195 kilometers West of Dar es Salaam and is situated on the lower slopes of the Uluguru Mountains, whose peak is about 1,600 feet above sea level. The municipality is well described in the figure 3.1 below.

Figure 3.1 The sketch map of Morogoro municipality showing the selected wards of the study



Source: Morogoro municipal records, (2017)

According to Population and Housing Census of 2012, the population of the Morogoro municipality was 315,866 people, of which 164,166 were women and 151,700 were men, the growth rate in the municipality was 4.7% per annum. The current population projection of Morogoro Municipality is 359,677 whereby 187,572 are women and 171,105 are men. The average per capital income is Tanzanian shillings. 539,375.00 per year (National population census report, 2012).

Morogoro Municipality was selected because, the solid waste problem is critical in the municipality. World Health Organization in 2017 put Morogoro Municipal town in number 33 among 38, of the dirtiest towns in the world. The municipal residents generate more than 300 tons of solid wastes per day, and only 45-60 % of generating

wastes are collected and transported to the dumpsite (MMC, 2016). The municipality also has got good number of CBOs involved in SWM in almost all her wards. The selection of *Mji Mkuu* ward which has got One CBO called Mji Mkuu Cleanliness Group or *Kikundi cha Usafi Mji Mkuu (KIUM)* and Kingo wards which also has one CBO called Twikinde were selected because the wards are at urban centre where trade and commercial activities are taking place ,also there are active CBO activities in SWM, Not only that but also there were several studied done in those wards on CBOs and solid waste management example the study by Kalwan, (2009) which did not clearly studied factors that facilitated or impeded CBOs effectiveness in SWM.

3.4 Population of study

The study population included CBOs' leaders, CBOs' members, municipal health officers (MHO), ward executive officer (WEO), ward health officer (WHO), street chairpersons (Mtaa leaders) and councillors in selected wards.

Table 3.1 Units of inquiry

SN	Department/Unit	Targeted	% of the total
1	Municipal health officers	4	5
2	Ward executive officers (WEO)	2	2
3	Ward health officer	3	4
4	CBOs' Leaders	10	12
5	Councillors	4	5
6	CBOs members	40	48
7	Street chairperson (*Mtaa* leaders)	20	24
Total		83	100

Source: researcher, (2017)

3.5 Sample size and sampling techniques

3.5.1Sampling design

The study employed systematic sampling, purposive/judgmental and convenient sampling designs.

3.5.1.2 Purposive sampling

In the case of purposive sampling in which the researcher intentionally targets a group of people believed to be reliable for the study. For the purpose of this study, 1 Municipal Health Officer, 2 Ward Executive Officers, 2 Ward Health Officer, 2 Councillors, 2 CBOs' Leaders and 9 Mtaa leaders were sampled judgmentally since they possessed the required information related to their areas of specialization or positions related to the study objectives.

3.5.1.3 Convenient sampling

Convenience sampling was used to select 15 CBOs members for FGD, who formed two groups for FGD. Group one of 9 CBO members and another of 6 CBO members of Mji Mkuu and Kingo ward respectively, the selection of these people took into consideration age and gender of the respondents. The sampling design was good for CBO members because of their flexibility of routine, also the experiences showed that there were no permanent CBO members who worked in CBOs except the leaders; others are hired on daily terms. That saved the time of the researcher.

3.5.2 Sample size

The sample size of the study was 33 respondents. That was determined in line with Roscoe's (1970), rule of thumb that affirms that the sample size between 30 and 500 is sufficient enough for study. The sample sizes of 33 respondents out of 83 respondents were included in the study. The sample drawn from the sampling frame was considered as large enough to yield reliable data and to guard against non-responses**.**

Table 3.3 Sample size

SN	Accessible population	Total actual population	Sample size	Percentage %)
1	Municipal health officers	4	1	3
2	Ward executive officers (WEO)	2	2	6
3	Ward health officer	3	2	6
4	CBOs' Leaders	10	2	6
5	Councillors	4	2	6
6	CBOs members	40	15	45
7	Street chairperson (Mtaa leaders)	20	9	27
Grant Total		83	33	100

Source: researcher, (2017)

3.6 Data collection

Primary and secondary sources of data were employed in the study. That avoided the weakness of relaying to a single instrument of data collection, to get reliable and realistic findings the methods of data collection, such as interview, observations, focus group discussion (FGD) and documentary review were employed in the data collection process.

3.6.1 Interview

The interview was used to get information from Wards Executive Officer (WEO), Municipal Health Officer (MHO), Ward Heath Officer (WHO), Councillors, CBOs Leaders and Mtaa (Street) Leaders who were selected respondents from the sampling frame. The questions for the interview were drawn from the interview guide in 'Appendix I' below. The Interview instrument enabled the researcher to explore the views, experiences, beliefs and/or motivations of individuals on specific matters related to political, social operational and administrative factors that impede or facilitate CBOs effectiveness in SWM in the selected wards.

3.6.2 Focus group discussions (FGD)

FGD used group dynamics to generate qualitative data and observation which provided ways of checking nonverbal expressions of feeling and also determine who interacts with whom, grasp how participants communicate with each other, and checked for how much time is spent on various activities. In the study, 15 CBO members were put into two groups. One group was of 9 members from *KIUM* CBO at Mji Mkuu ward and another group of 6 members from Twikinde CBO from Kingo ward. That was because FGD needs not less than 6 respondents and not more than ten respondents for the effectiveness of group discussion (Krueger, 2002).

With the aid of FGD guide, the researcher moderated the discussion together with an assistant moderator who was among CBOs members. A half an hour was used to lead the participants to discuss questions about social operational factors that facilitate or

impede CBOs effectiveness in SWM. While discussing the Moderator or assistance moderator was taking notes from participants' responses.

The advantage of using FGD to the selected CBOs members enabled the research to explore additional information from respondents which enhanced the validity and reliability of information for better research reports. The method also enabled the researcher to gather a lot of information quickly while being good in the identification and exploration of beliefs, ideas or opinions from CBOs members on operational factors. CBOs members were taken in FGD because they were easy to meet, since the experiences showed that on Saturday all CBOs members met for picking Solid wastes from houses. The demerit of this method is that sometimes respondents may not be in a good mood to respond to the questions especially those which touch on their privacy. The tendency of the few members to control the discussion when not noticed is the problem which will not bring about balanced information, but in the study the demerits were overcome through following important procedures of conducting FGD.

3.6.3 Documentary review

These are Secondary kinds of data; they may either be published or unpublished. They are always available in various publications of the government, NGOs, international bodies and their subsidiary organizations. Data from documents and literature were in all phases of the investigation when necessary. The method is good since the data are already made available. Although a minute scrutiny must be done since it is just possible that the secondary data may be unsuitable or may be inadequate in the context of the problem which the researcher wants to study.

3.6.4 Observations

In the study various matters were observed even from other data collection tools (interview and FGD), some of solid waste management activities example, collection bins and transportation vehicles and collection points were observed with the aid of an observation check list in appendix III. The method was used because it eliminates subjective bias when is done accurately and the data attained through this method relates

to what is currently happening (Kothari, 2004), therefore it is not complicated by either the best traits or future intentions or attitude of the respondents.

However, the method has various limitations, such as expenses, data provided by this method is limited and sometimes unforeseen factors might interfere with the observational task. When employing this method the researcher kept in mind things like what should be observed? , how the observations should be recorded? And how the accuracy of observation can be insured?

3.7 Data validity and reliability

In order to ensure that the results obtained were valid and reliable as possible, the researcher was continuously cross checking and verifying the collected data to ensure that it satisfies the stated research questions. Each data collection technique had its merits and demerits therefore triangulation was very an important strategy to adopt. It involved the use of multiple data collection techniques such as interviews, FGD, observation, as well as relying on secondary data sources. Apart from the data which were collected from public officials of MMC and CBOs office, the representatives from the communities, including CBOs' leaders and the CBOs' members were also involved in order to get balanced opinions and positions on the issues relating to factors that impede or facilitate CBOs effectiveness in SWM.

3.8 Methods of data analysis

Data analysis is essential for a scientific study and for ensuring that we have all relevant data for making contemplated comparisons and analysis. In this study data were collected through interview, observation and FGD analysed qualitatively using thematic content analysis. Technically qualitative research information was in the form of words, where the researcher started some ideas about the assumptions or themes that emerged and looked collected information. The researcher used coding and numbering system to identify text about the different themes, grouping together ideas and gathering evidences about views on each theme and interpreted.

The analysis involved organizing and labelling the data by hand where some additional office supplies like ream paper used. The use of qualitative data analysis was used because of the nature of data collection instruments (interview, FGD and observations). Later data presented through descriptive form and not in numerical manner.

3.9 Ethical Considerations

Ethical consideration during data collection was taken into considerations as the researcher requested permission for the respondents to participate and provide information willingly without fear. Rights to privacy and confidentiality of the information provided by respondents were also secured. Also, the researcher used polite language in interviewing and discussion during data collection process.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents and discusses the findings of the main objective of the study on factors that facilitate or impede CBOs effectiveness in SWM. The study findings were obtained from documentary review, observations, focus group discussions and interviews. The study answers three research questions which were; How do administrative factor facilitate or impede CBOs' effectiveness in solid waste management?, To what extent do political factors facilitate or impede CBO's effectiveness in solid waste management?, and How social operational factor facilitates or impedes CBOs effectiveness in solid waste management in selected wards of Morogoro Municipality?

4.2 Administrative Factors

The aim of the researcher was to examine how administrative factors facilitate or impede CBOs' effectiveness in solid waste management and the main focus was on the way SWM activities were coordinated and the organization structure of SWM in the study areas. The findings from documentary sources, interviews and FGD were presented and discussed as follows.

4.2.1 Coordination of solid waste management

The aim of the researcher of this part was to know how solid waste management was coordinated and how the coordination supported solid waste management. Data were obtained from documentary review, interviews and FGD.

Solid waste management as a public service involves many agents like government, community and private sector. The underlying assumption of the study is that when there is proper coordination among the agents, there is the possibility for CBOs to be effective in solid waste management. According to the municipal health officer and ward health officers, coordination of solid waste management is done at municipal, ward and street. CBOs are the main agents of solid waste collection and they collect waste in

business centers and houses. The findings showed that CBOs' activities are coordinated at ward and street. According to the municipal health officer, solid waste management activities are coordinated by the municipal council. The municipal council records show that the Morogoro municipal council was responsible for registering CBOs but late 2015 the responsibilities of registering CBOs were delegated to Wards. At ward, ward health officer who is responsible for all issues related to health and environmental safety works with CBOs to manage solid waste. The Ward health officer is assisted by street chairpersons and street committee members to mobilize the community on solid waste management issues, to provide environmental safety and health education and supervise the activities of CBOs in solid waste management in streets and houses. The coordination of solid waste management activities is proper. This is because the findings show the main agents of solid waste management works as a team.

According to one of WEOs interviewed explained that, the management of solid wastes in ward is well as CBO and his office collaborated to make sure solid wastes are handled well. CBOs are collecting and transporting solid waste and community (households) are paying collection fees. Ward officials are there for technical and professional assistants to CBOs. Although the findings showed that sometimes ward executive officers are involved directly into households' mobilization and supervision of solid waste management activities, there was still mismanagement of solid waste.

"I always make sure each house has a sack or bucket for putting solid wastes and also make sure that the street leaders align with me in those tasks related to SW (WEO 2, April 2017)".

Field observation shows that ward health officers are too close to CBO collecting of solid wastes in the streets. The explanation concurs with those of CBOs' leaders who acknowledged the support they are getting from ward health officers and Mtaa leaders in solid waste management. Mtaa leaders mobilize the community on payments of the collection fees. The explanations concur with those of councillors interviewed. Therefore, coordination of solid waste management in the wards studied is proper as all

agents work together as a team, this support CBOs in the collection and transportation of solid wastes.

Lack of coordination among relevant agencies often results into different agencies becoming the national counterpart to difference external support agencies for difference solid waste collaborative project without being aware of what other national agencies are doing (Ogawa, 2012). The observations on the ways CBOs and other agents work, showed that the agents work well, but there is no framework observed at ward or municipal level which coordinates the agents for collective benefits in solid waste management. In one of the wards, the findings show in one of the wards, CBO's leader and ward health officer interred in quarrel, because of different expectations driven by the registration of CBOs.

I'm not working well with ward health officer we interred in misunderstanding when I took another person as my referee to register this CBO, (CBO's Leader 2, April 2017)

That causes problem when the need for coordination arise as the agents need to align in terms of goals and expectations for proper solid waste management.

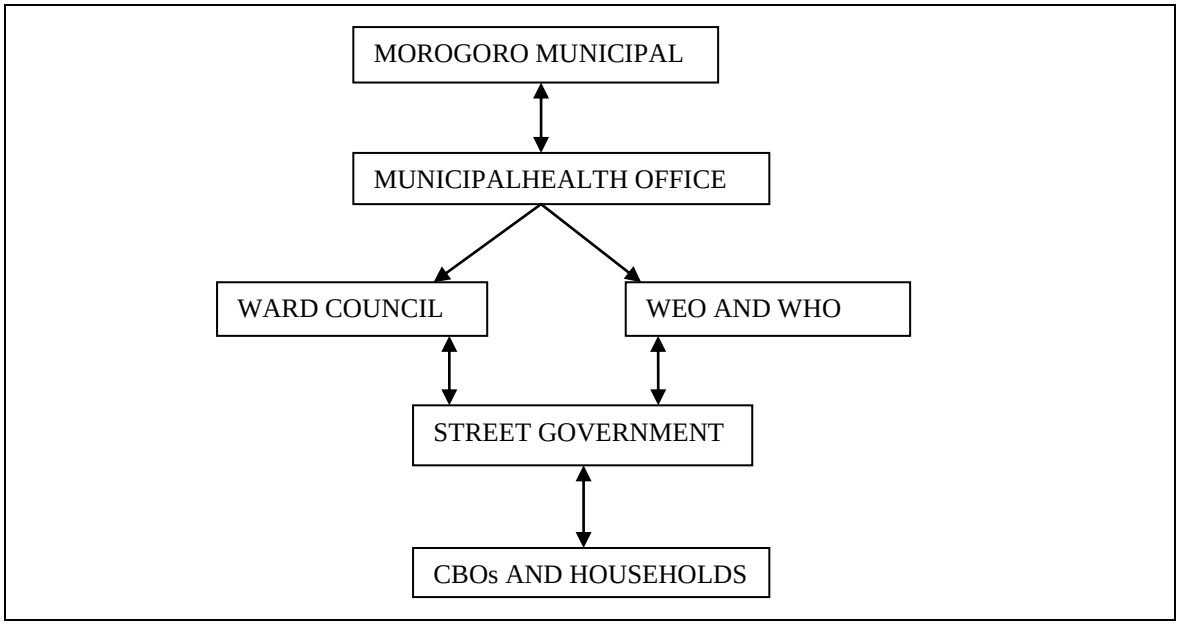
4.1.2 Organization structure of solid waste management

The researcher's aim was to know how the organization structure of Morogoro municipality and CBOs support SWM. The responses were obtained from municipal health, WEO, ward health officers and CBOs leaders interviewed and CBOs' members discussed in FGD.

The underlying assumption of the study is that if the organization structure of solid waste management is good, CBOs' activities of managing solid waste will be effective too. The findings showed that the organizational structure of SWM in selected wards is divided into two, one is of municipal and another is of CBOs. According to Municipal health officer, the municipal's organizational structure includes wards, streets and CBOs who are taken as agents in solid waste management. The municipal records show that, municipal and ward health officers have professional tasks in solid waste management, such as supervision and coordination of CBOs, ward and street government in

management of solid wastes. Ward executive officers and ward health officers give directives to street chairpersons who mobilize community support CBOs in the collection of solid wastes. The structure's goal is to make sure the environments are clean and safety. Ward committee and street meetings are used as platforms for addressing SWM issues. The findings show that in ward committee and street meetings community, public officials and politician (councillors) met together to discuss various matters including those of solid waste management.

Figure 4.1 Organizational structure of solid waste management in Morogoro Municipality



Source: Researcher own constructs (2017)

The figure shows how the solid waste management structure of Morogoro municipal looks like, the municipal health office is in charge of SWM in the Municipality. On the lower level the wards and street governments work together with CBOs and community (households).

According to Hill, (2013), for the structure to work well, there should be proper communication and reporting relationship among the members. The findings show that a big number of solid waste agents interviewed had no information on the structure as

councillors and street chairpersons failed to provide detailed information on the organization structure functionality in their locality.

"I don't know anything about the structure of solid waste management of the municipality, what I see are only these people (CBOs' members) collecting wastes in the streets, (Councillor 2: April 2017)"

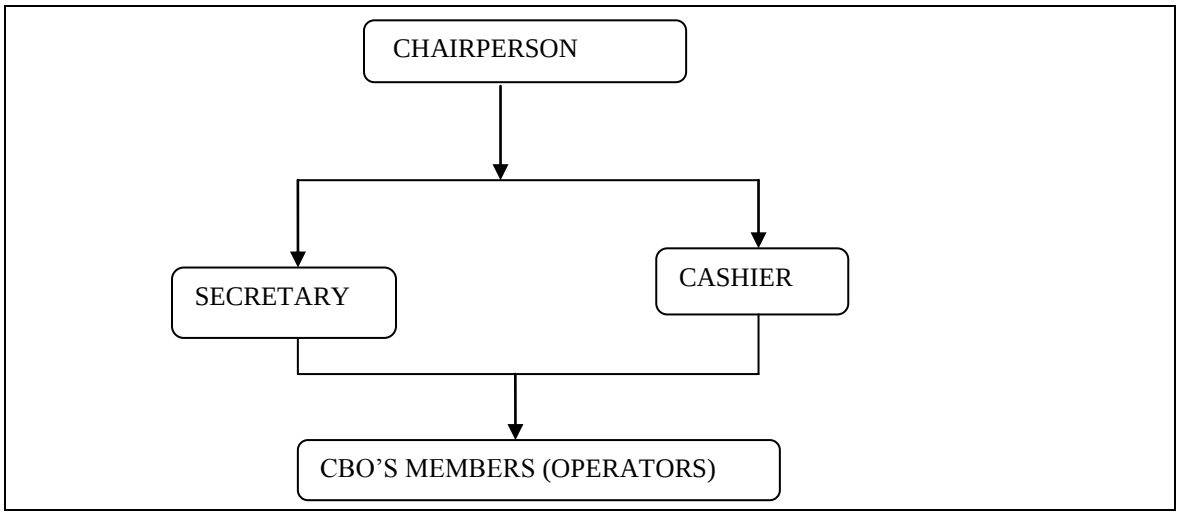
The explanation aligns with those of respondents in FGD, who failed to know where to report in case of any problem related to their day to day problems in solid waste management. This implies the structure may impede CBOs' effectiveness in managing solid wastes.

Few respondents, Municipal health officer, WEOs and ward health officers see the organization structure of SWM is supportive, because in their opinions, the structure is the one which brings together all agents of solid waste management to participate in solid waste effectively. With the structure all agents take their responsibilities accordingly. There is also proper communication between CBOs, WEO, councillor and community as whole; this explained by one of ward health officers. The opinions from many respondents see that the structure is not supportive due to slow flow of information from municipal to ward and CBOs especially in money transaction needed by CBOs to run solid waste management activities properly. The majority of street leaders from two wards interviewed were not aware of the organization structure of SWM, although they provided their roles in SWM including supervision of cleanliness of streets, mobilizing households to collect solid wastes in buckets or sucks outside their homes and to make their people aware of collection fees which is paid to CBOs every month.

CBOs have their own organization structure which comprises top management (Chairman, secretary and cashier) and subordinates who are CBO's members (operators). According to the structure, each person has a role to accomplish in managing solid wastes. The findings show, the chairman of CBO works with secretary in the general administration of CBO. The cashier is there for financial responsibilities,

such as paying the operators. The operators (CBO's members) collect solid wastes from houses to collection point where the bucket is located. The structure is the same to all CBOs in selected wards. According to CBOs' leaders interviewed and CBOs members discussed in FGD. The organization structure of CBOs support SWM because through the structure, solid waste management are well managed and carried out well. Each CBO members in their CBOs have his or her roles to play in SWM. One of CBO leaders explained that, they always schedule their daily routine and each member is aware of his or her own responsibility that is why the streets which their CBO operates are always clean.

Figure 4.2 Organization structures of CBOs in solid waste management



Source: Researcher own constructs (2017**)**

The CBO numbers in FGD of the two groups were aware of their organizational structure as observed in fig 4:2. The CBO members met at collection point and talk about important issues related to their day to day activities. The CBOs' organization structure supports solid waste management because all members take their responsibilities accordingly. One of the discussant quoted,

"I was at my home, but my leader called me that in my collection area there were uncollected solid waste that is the way we are structured (CBO's Member 4, April 2017)".

The statement above implies that, the structure facilitates CBOs effectiveness in solid waste management as the members obey their leaders and also know their responsibilities in collection of solid wastes. This is contrary to another CBO from Kingo ward where her members involved in FGD in their opinion revealed that, their organizational structure is not supportive since the top management is forsaking them. One of the discussant in FGD quoted.

"Look the way we are, we are totally tired of this CBO, these people (CBO's leaders) are corrupting and they don't take care of our important matters like good salary (CBO's Member 14, April 2017)"

Although according to the opinions of CBOs' leaders and members see the structure was good and influenced solid waste management, the observations show that CBOs still run their organization very traditional and thus in reality to be effective in managing solid waste is still a process. This aligns with Golwike (2007) that, the organization operates its activities without having proper community based SWM system, in some extent hampered the achievement of CBO goals in SWM. In the area of administration factors, it seems that they facilitated the effectiveness of CBO in SWM well but not to the required standard. Even Kuhn, (1974) managing solid wastes effectively CBOs need a functional system to manage their project well.

4.3 Political Factors

The aim of the research was to find out the extent to which political factors facilitate or impede CBOs' effectiveness in solid waste management; the main focus was on policy, legislations and bylaws of SWM. Compliances of policies and legislations, councillors' roles and cooperation in SWM were also studied. The findings gathered from documentary review, interviews and FGDs are presented and discussed as follows.

4.3.1 Legislations and policies guiding solid waste management

The aim of the researcher was to find out the extent in which policies and legislations related to solid waste management had influenced the effectiveness of CBOs in solid

waste management focusing on their support to solid waste management and compliances.

The assumption of the study in this part was that if policies and legislation were known by solid waste management agents, it would be easy for CBOs and other agents be effective in managing solid wastes. The legislations are in the form of regulations or directives, both are to be well communicated to all agents of solid waste management for sustainability of the environment.

There were policies and legislations which guided SWM in Tanzania and Morogoro Municipality. The policies such as national environmental policy 1997, national human settlement and development policy 2000, national land policy 1997 national food and nutrition policy1992 and national health policy 1990 as mentioned by a municipal health officer and found in documents in ward offices in the study area. The legislations related to SWM included public health act 2009, occupations, health act of 2003, TFDA act 2003. On the other hand, many respondents in FGD and interviews including CBOs' leaders, councilors, street chairpersons and CBOs members were not aware of any policy and legislation related to SWM.

Generally, the study findings showed that only few respondents were aware of polices and legislations of SWM while the majority of the respondents were interviewed and participated in FGDs were not aware of them, that situation perhaps might results into failure of CBOs in handling well solid waste management services. World Bank (2010) also attests that, for effective SWM, both policies and legislations are to be well communicated to all agents of solid waste management for sustainability of environment.

The intention of the study in this part was to know how policies and legislations of SWM influence CBOs in solid waste management. The findings indicated that policies and legislations in large extent influenced SWM but in some extend it did not. According to few respondents interviewed like a municipal health officer, ward

executive officer and ward health officer who were also aware of the policies and legislations agreed that policies and legislations influenced solid waste management. The municipal Health Officer explained that policies and legislations are helpful in SWM, because it is from them they construct good bylaws.

"When we make bylaws for solid waste management, the national policies and legislations are our main frameworks. The bylaws which reflect the national policies and legislation are easily accepted by SWM agents, including CBOs (Municipal health officer: April 2017)"

But the observation showed there was the problem of enforcing legislations and policies to solid waste management community as the response from one of CBO's leader interviewed, when asked if he has any copy of legislation he replied that, *"Municipal officials are not ready to provide us with those documents because they think that, if we are aware of many issues related to SWM, they will fail to manipulate us (CBO's Leader 2, April 2017)"*

This implies that the municipal council was not serious with solid waste management since the policies and legislations had a lot of important things for CBOs to enhance effective solid waste management and still were not well communicated to CBOs. The municipal council had to make sure the legislations and policies were known to all agents of solid waste management this was also supported by Linder et al, (1997) who affirms that political factors such as lack of legislations and policy are impediments to effective SWM.

The study in this part also aimed to know how the compliance of policies and legislations influence SWM. The underlying assumption of the study in this part was that if there are compliances of policies and legislations by the main agents of SWM, it would enable CBOs to be effective in managing solid waste .In the study the compliance of policies and legislations was not good, although other respondents saw that there is good compliance with them. According to the municipal health officer, CBOs and community are not highly complying with policies and legislations due to poor

awareness of the policies and legislations. He also added that the municipal council had no any special programs, seminars or workshop with CBOs members on policies and legislation of SWM.

In addition to that, sometimes CBOs did not comply with policies and legislations due to their reluctance of not taking part in various occasions of SWM. The WEO from Kingo in an interview revealed that CBOs' members sometimes are trained on safety principles by international non-governmental organizations like SUNSEED organization from Germany. The SUNSED used to provide them with equipment such as cloves, masks and gunboats which are also stipulated in legislations but CBO's members found in the street collecting solid wastes with their bare hands, therefore when the policies and legislations are well communicated by all agents of solid waste management there is the possibilities of them to support CBOs in solid waste management. On the other hand the majority of respondents including CBOs members in FGD and street chairmen, CBOs leader and a councillor interviewed were not aware of them.

Generally, the findings showed that there was low compliance of policies and legislations related to SWM in the study areas, despite the emphasis by World Bank (2010) that insists that the compliance of policies and legislations related to solid waste management are important because they promoted better management of solid wastes, support resource recovery and provided support for research and development of improved methods of solid waste management.

4.2.2 Bylaws of solid waste management

The researchers' aim was to know if the municipal council had bylaws of solid waste management, and if do they influence solid waste management. The involvement of agents of solid waste management in the formulation of those by-laws was also studied. Data were obtained from interviews, document reviews and FGDs.

A bylaw is a law made by a local authority in accordance with the powers conferred by or delegated to it under a statute. The researcher's assumption on this part was that

bylaws are necessary for LGAs and CBOs for effective solid waste management, if bylaws were known to all agents of SWM, it would be easy for CBOs be effective in the collection and transportation of solid wastes. The findings showed that there were two bylaws formulated to guide SWM in the Morogoro municipal council, *Sheria Ndogo za Usafi wa Mazingira* (bylaws for environmental safety) of 2010 and *Sheria Ndogo za Ada na Ushuru* (bylaws on fees and charges) of 2011 on Morogoro Municipal council.

The bylaws legalize CBOs as agent of solid waste management, CBOs collect, transport and charge the community collection fee of solid waste management service and thus the households are to accept CBOs collection fees which are set by municipal council The copies of bylaws were not only available at the municipal health office but also ward offices. A municipal health officer, ward health officer and WEO who were interviewed showed that they were aware of all bylaws. On the other side many respondents interviewed, including street chairpersons and CBOs' members in an interview and FGDs respectively, were not aware of the existence of the bylaws.

The study aim in this part also wanted to know if the bylaws influence SWM, According to the respondents who were aware of the bylaws explained that the bylaws influenced SWM. For example WEO from Mji Mkuu and his CBO's leader interviewed had the same views that the bylaws insists, if one disobeys the bylaws of SWM of Morogoro municipal council, is charged 50,000 TSH or jail for 12 months.
In the same vein WEO from Kingo explained that; "*at the beginning the community due to poor awareness of the bylaws entered in quarrel with CBOs. Currently the quarrels are rarely with good support from fee and charges as well as environmental safety bylaws of the Morogoro municipal council (April 2017)"*

Although the bylaws in the study area seem to influence solid waste management in the municipal council one of ward health officers added *that "there are minimal gaps which are to be observed in legislations and policies which are also reflected in our bylaws the areas need to be revised (April 2017)"*

Generally, the Municipal Council should have good bylaws which guide solid waste management and all agents should be aware of them. In the study areas the situation of the majority of agents not being aware of the by-laws may have negative implications to effectiveness of CBOs in solid waste management. Alberta Municipal Affair (2013) declared that the municipal bylaw is no different than any other law of the land, and can be enforced with penalties, challenged in court and must comply with higher levels of law. The enforcement of the bylaws of SWM is easy when the all agents are aware of them that perhaps may awaken the community to be careful when comes to the issues of environmental safety and CBOs get conducive environment in their processes of managing solid wastes.

Solid waste management infrastructure are very helpful in bylaws enforcement and compliance but observations in the study areas showed that the infrastructures of CBOs are not good and sufficient enough to support the exercise or compliance of the bylaws, as Shah, (2015) attests that the compliance with the municipal solid waste rules require the appropriate systems and infrastructure facilities be put in place to undertake scientific collection, management, processing and disposal of municipal waste. Similarly, the communities in the selected wards, perhaps are finding it difficult to abide by the bylaws of solid waste management, implement and sustain door-to-door collection, management, processing and disposal of solid wastes.

Again the study in addition to the above wanted to know if there was the involvement of all agents in the bylaws formulation process. The assumption of this part was that if all agents were involved in the process of formulation of bylaws related to SWM, it would be easy for them to take consideration of SWM and finally CBOs may be effective in SWM, the involvement of all important agents of solid waste management is important because the bylaws are applied to the whole community. The findings show that the community was not involved in the bylaws formulation as the majority of respondents in interviews and FGDs responded that they were not involved in the process of bylaws formulation and when they were asked the reasons behind, the low status, and lack of

education were factors mentioned by the majority that hinder them to be involved in the bylaws formulation process by the Municipal council.

In the same vein of the reasons of not be involved in bylaws formulations the street chairperson from Uhuru said that, *"the municipal council is not ready to involve us because they think that we are not knowledgeable enough to contribute the bylaws that is why they put us aside in the formulation of the bylaws related to SWM (Mtaa Leader 9, April 2017)"*

Generally involvement of agents in the bylaws formulations in the study areas was not good this may have bad implications to the effectiveness of CBOs in SWM in the study areas because through involvement in bylaws formulation, the agents of SWM would be in a good position to articulate their demands and views to be included in the bylaws related to SWM for effective solid waste management this also affirmed by Mowo *et al.,* (2016) that formulation of most of the existing bylaws do not fully involve the local communities. Failure to involve all possible stakeholders of SWM in the process of bylaws formulation would render most bylaws ineffective and that may lead to negative implications for CBOs effectiveness in SWM.

4.2.3 Councilors' roles in solid waste management

The aim of the researcher was to know if the roles of the councillors in SWM were recognized and if they had any significant to effective SWM. Their cooperation with other agents of solid waste management has implication for effective solid waste management and their political interference in solid waste management.

Councillors have the role to play in solid waste management at ward and municipal level. The underlying assumption of this part of study if the councillors take part in SWM it would be easy for CBOs to effective in their management activities that was because the councillors are not only political figures but also too close to the community where SWM activities occur in their areas. The findings showed that councillors were working together with ward in making sure that the streets are clean.

This was done by mobilizing the households to collect solid wastes outside their homes and also to make them aware of collection fees. The collection fee was set by municipal councils where councillors were involved. CBOs collect fees every month from households. In Mji Mkuu ward the councillor takes his roles accordingly and even used to lend CBOs money for transportation of solid wastes to deposits and hiring carts for house to house collections. But in Kingo ward the councillor role in SWM were not well identified as the interviewed held with a particular councillor showed that he was even not aware if he is a part of SWM in his ward.

The study also intended to know if the councillor roles influenced CBOs by management of solid wastes. The underlying assumption of this part was that if the councillors' roles are taken into consideration the community would easily accept CBOs activities of SWM and eventually may result into CBOs to be effective in SWM. The findings showed that the councillors' roles influenced and on the other side did not influence the CBO effectiveness in SWM. According to the interview with the Municipal Health Officer, said that, *"We have luck in our council our councillors are well educated thus their inputs in the bylaws formulation of solid waste management are superb*"

That statement showed that councillors were taking part in the formulation of bylaws in the council according LGAs arrangements. Additionally, councillor for Mji Mkuu ward where the roles of the councillors in SWM were realized the findings showed that his roles support SWM. According to the interview held to WEO from Mji Mkuu said that, *"My ward councillor works together with ward health officers in mobilizing people to be aware of SWM issues, such as encouraging community to pay collection fees to CBOs as well as transferring environmental cleanliness education through street meetings"*

In the same vein CBO leader who interviewed from Mji Mkuu added that; *"when I have problems related to solid wastes with households, a councillor is at Frontline to find the solutions and we do together a lot, sometimes he even lend us money for the operation when the municipal delayed to pay us (CBO's Leader 1, April 2017)"*

Although councillor roles were well regarded and influenced CBO in SWM activities at Mji Mkuu, The situation was quite different at Kingo ward where the roles of the councillors were there, but the councillor himself was not aware of his roles, when interviewed he failed to mention any of his responsibility as a councillor with regard to SWM. The observation found that the councillor sees that engaging in SWM is the volunteer job one is not obliged to be paid. That made him to be blamed of being away from their voters' problems. For example, in the interview with CBO leader from Kingo explained that *"My ward councillor has little time to save people in matters related to Solid waste management*"

CBO leader's explanations concurred with the views of his CBOs members in FGD who explained that, their councillor has got no time to lose helping them in case of any problem, he has got betting station in town, he used to spend there the whole time, his office opened only a day in a week.

Generally, when the councillor knew his roles and working very close with the CBOs and other agents of SWM there was CBO's effectiveness in SWM because the councillor is an immediate person to take communities' problems with municipal councils. In the study area where the councillor roles were considered, CBOs effectiveness in SWM was achieved. In addition, Asian development bank, (2014) affirms that councillors also have got good contributions of passing bylaws which had an impact to CBO's effectiveness in SWM.

The study also intended to know if Political interferences of the councillors in solid waste management occur in study areas and if there was necessary for councillor to interfere. The assumption of this part of the study was that if the political interferences in SWM had positive implications to SWM, it would influence SWM and CBOs effectiveness could be met and verse versa

The findings of the study showed that councillors seem not interfere the CBOs' and LGAs activities in SWM for their own political interests. The majority of the

respondents interviewed and participated in FGD explanations showed that the councillors did not interfere with activities of managing solid waste for their own political influences. One of street chairperson quoted,

"*I work well with my councillor in SWM. He respects me, and I do the same to him (Mtaa Leader 6, April 2017)*"

The explanation was also supported by CBO leader from Mji Mkuu ward who added that;

> *Our councillor does not intervene our SWM for his own political interests, he responds only when I asked a help in a certain matter. He is a good person and sometimes lends us money for SWM activities that is why I consider him as and good example for political leaders in the council (CBO leader 2, April 2017)*"

When respondents in interviews and FGDs asked if it was important for political interference to occur in issues related to SWM, they had no problem with the political interference but the majority views showed that political interferences could be an asset in case they bring about positive impact to CBOs and SWM, unless the interferences were useless.

Generally, political interference influences SWM positively or negatively. In the study areas the findings revealed that there was no political interference in SWM. That meant the effectiveness of CBOs in solid waste management was easily achieved, but when the political interference occurs articulate negative intentions towards SWM and the effectiveness of CBOs in SWM can be hampered. This was also supported by Roch, (2005) who attests that political interference hampers smooth running of CBOs in LGAs.

4.4 Social operation factors

The intention of this objective was to know the extent to which social operational factors facilitate or impede CBOs effectiveness in SWM, the special attention was on the capacity of CBOs in terms of finance, human resource and equipment for SWM. The

findings were obtained from researcher's observations, documentary reviews, interviews and FGDs.

4.4.1 Number of CBOs involved in SWM

The intention of this part was to know the number of CBOs involved in SWM in the municipal council and its wards and data were obtained from interviews, FGDs and documentary review. According to Morogoro Municipal Council (2017), the municipal council had got 22 registered CBOs in her wards involved in SWM and the selected wards have got two CBOs.

4.4.2 Capacities of CBOs in terms of human resource, financial resource and equipment

The intention of the study of this part was to know if CBOs involved in SWM have enough capacity in terms of finance, human recourses and equipment, and how the capacities influenced SWM and the reasons behind incapacities of CBOs in SWM in those specific areas. Data were obtained from observations, interviews, FGD and documentary review.

Regarding financial capacities of CBOs, the findings revealed that CBOs had the low financial capacity to influence SWM. The underplaying assumption of the study of this part was that if CBOs had enough money, it would be easy for them to afford important requirement of SWM like facilities, paying and employing qualified operators for effective SWM. The study findings showed that CBOs have got no enough financial resource to influence SWM in the study areas. According to the interview conducted by CBO leader of Kingo claimed that, *"Our CBOs have got enough money to handle solid waste management effectively"*.

In the same vein, CBOs members in FGD concurred with the views of their leader that their CBOs had insufficient financial resource for handling SWM effectively. Observations on facilities of the CBOs and the status of operators (CBOs members) verified that CBOs' financial capacity was no enough to afford all requirements of

SWM. The same stands also were provided also by all respondents in interviews and FGDs.

The study, part was also intended to know the reasons for why the CBOs financial capacities were low. Findings from interviews and FGD showed the following. According to the CBO's leader of Mji Mkuu ward during the interview said that, *"the amount of collection fee, we used to charge households are very low for us to retain enough money for SWM because bylaws allow us to charge 2000 to 6000 shillings per month, this amount is too small to handle SWM well (CBO's Leader 1, April 2017)".*

That amount explained above was said to be too small for CBOs to manage SWM effectively, in the study area CBOs members saw the amount was no sufficient while the community who were represented by their Mtaa leaders saw the amount charge was high when compared to their economic status.

In addition to that WEO of Kingo shared the views of the CBO leader above said that;

> *Collection fees are not enough to handle SWM effectively, sometimes there are difficulties to get the recommended fees from households and sometimes I receive complaints from CBO leader on refusal of households to pay collection fees .When we take them to court the fail even to pay the amount ordered by the court. In general the community in my ward has got low economic status (CBO leader 1, April 2017).*

Generally, financial resource is very important for smooth handling of SWM practices, the CBOs in the study area had got no enough financial resource which help them to afford different requirements for SWM as Coad, (2011) attests that shortage of funds may also restrict some operational expenditure such fuel and maintenance or purchase of spare parts of vehicles. Also It was reflected in the study by Al-Khatibu et al, (2010) who affirm that many CBOs in Africa that are involved in collections of solid west service suffer different forms of inadequate the common among them is lack of sufficient fund to procure collection facilities such as containers, vehicles, loading and

sweeping and works kit fee. However, in the study areas the findings revealed that CBOs had the low financial capacity to support effective SWM and this implied that it was difficult for CBOs to be effective in SWM.

On the aspect of human resource, the findings revealed that CBOs had gotten few numbers of operators who were qualified to manage solid wastes effectively. The underlying assumption of this part of the study was that if CBOs had a good number of operators who were qualified to work in SWM, it would facilitate effective SWM and the verse versa. The findings showed that CBOs in the study ward had fewer numbers of human resources. According to the interview held to CBO's leader from Kingo ward explained that, "*our CBO has got a few people to work on the whole ward of five streets because we are only 9 with this little number we cannot collect wastes properly covering all premises"*

The views concurred with that of CBOs members participated in FGD from Mji Mkuu ward who were only 15 who required covering seven streets.

Table 4.1 Capacities of CBOs in terms of human resource and equipment

Items	KIUM CBO Number of items available	TWIKINDE CBO Number of items available
Human resource	15	9
Lorry/tractor	0	0
Carts	0	0
Wheelbarrow	0	0
Rain coats	10	3
Gunboats	10 pairs	4 pairs
Gloves	10 pairs	3pair
Nose Masks	3	1

Source: Field observation, and CBOs' members in FGDs, (2017)

The table above showed CBOs' capacities in terms of human resource and equipment as observed and provided by CBOs' members.

The study in this part also intended to know why CBOs had few human resources the findings revealed the following; According to the interview with the health officer from

Mji Mkuu went further and explained that, *"CBOs always employ people whom they think can be easily oppressed and paying them lower salaries"*

The statement aligned with the views from FGD conducted for CBOs members at Kingo and Mji Mkuu wards, they added that people were not interested to join CBOs activities because the work had low social status and other people regard waste collectors as those who failed in life this discourages many people to join CBOs. Also the observation found that CBO members were not well educated and most of them were old women and only few youths. CBOs members also showed that there was difficult to be effective in SWM because the activities were tough and needed people with muscular and physic, the situation of CBOs consist of many older women implied slowness of their activities.

Generally, the CBOs in study areas had fewer numbers of operators compared to areas of operation. There was the need for CBOs to find strategies to attract many people to join SWM together with the increasing salaries and improving working conditions of workers. This is affirmed by UWEP working document 2 (1996) which described that that in Ghana workers are given food and later they receive salaries, which attract many people to join in CBOs for SWM. When the CBOs have a good number of operators perhaps would influence their effectiveness in SWM.

In the area of equipment, the findings showed that CBOs had got no enough equipment for SWM. The underlying assumption of this part of the study was that if CBOs had enough equipment used in SWM, would be able to manage SWM effectively and verse versa. The findings from The observations and documentary review showed that equipment used by CBOs in SWM in the two wards were not only few but also crude, see figure 4.1 and table 4.1 CBOs had got few safety gears like gumboots, masks and cloves. These views concurred with that from interviews conducted to street chairperson. For example the street leader from Mji Mkuu ward added that;

> *We have surrendered the activities of managing wastes to the CBO but our CBOs have got no enough equipment for SWM. Imagine the CBOs can not*

possess even their own pulling cart they use to hire. This is caused by poor financial capacity of CBO (Mtaa Chairperson 3, April 2017).

The views were also supported by municipal health officer during interviewed explained that;

CBOs in our municipal have got little equipment important in collection of solid wastes. The equipments like gum boots, nose masks and gloves do not match with the number of CBOs members, this is due to lack of budget of both municipal council and CBO (Municipal Health officer, April 2017).

Figure 4.1 CBO members sort solid wastes at Mji Mkuu Ward.

Source: Researcher's field observations (2017)

Generally, CBOs in the study wards have got few and crude equipment necessary for SWM. This was attested to Roch, (2005) that the poor state of infrastructure and lack of funding mitigate against optimization of municipal solid wastes collection and disposal. This implied that in the study areas when a lot of efforts were invested in buying better infrastructures of SWM, CBOs effectiveness in managing solid waste would be achieved.

4.4.3 Salaries and supports to CBOs members

The aim of the researcher aim from this part was to know if the CBOs members were given enough salaries and supports from CBO, and if the salaries and supports provided supported SWM, data collected by interviews, documentary review and FGDs.

The findings showed that CBOs members were paid low salaries and any support when faced with problems. The underlying assumption of the researcher from this part was that if CBOs members were given enough salaries and support it would motivate them to use all their efforts to manage solid waste effectively and verse versa. The records from CBOs showed salaries were paid on monthly basis and sometimes were not paid on time. The findings from FGD revealed that amount of salaries that were given to CBOs members were below one thousand shillings per month and it was not sufficient enough to afford their basic need of life.

In the aspects of other supports given to CBOs member's findings from interviews and FGDs revealed that there was no any support provided to CBOs members rather than their monthly salary. For example the interview held to the COB's leader from Mji Mkuu ward explained that *"we do not provide any support to our members and the reason behind is we are not financially good enough to support them"*

The views of CBO leader of Mji Mkuu ward concurred with those of CBO members from Kingo in FGD in their totality said that they were not given any support in case of critical problem they were facing; they were even not well supported when injured at working places.

Generally, support and good salaries to operators are very important for effective SWM UWEP working document 2 (1996) affirms that salaries of CBOs members have implications for CBOs' effectiveness in SWM by CBO may be effective as in Senegal local health committee provide CBOs members and their families with medical assistance free of charge. When CBOs members were given support perhaps may influence SWM and many people can be attracted to join CBOs.

4.4.4 Schedule of CBOs activities

The aim of the researcher in this area was to know how CBOs planed their daily activities in managing solid wastes and how that plans supported SWM. Data were obtained from documentary review, FGD and interviews from the key informants.

The underlying assumption of the study this part was if the schedule of CBOs managed and implemented well it would result into the effectiveness of CBOs in SWM. According to CBOs' rosters it was revealed that all CBOs in study areas had wards their own way of collecting solid wastes. For example during FGD CBOs members in at Mji Mkuu ward, it was revealed CBOs members reported early in the morning at collection point where they were divided into streets. Each member had got her/his own street for collecting solid wastes. Then the wastes were transported from public domiciles by pulling carts to the collection point where they were sorted and put into bucket for transportation to landfill by municipal Lorries. That was contrary to other CBOs members of Kingo ward whereby during the FGD revealed that CBOs members had the custom of meeting early in the morning at the collection point, from there all planed where to start and end in collecting solid wastes until they cover their operational area.

The study in this part also intended to know if the schedules of CBOs influence SWM. The findings revealed that the schedule supported SWM. According to FGD with CBOs members from Mji Mkuu ward CBOs' schedule influenced SWM because each person was given his/her portion; it was easy to monitor and to make follow up to CBOs members, when the street observed dirtier their leader called the responsible members to repeat the collection activity. This was also supported in interviewed held the Street chairperson from Uhuru at Kingo ward who added that, *"CBO plans well its daily routine that is why they do better in SWM since each street has got its own operator (CBO member) and they work good despite of slightly faults resulted by few equipment"*

The views on how CBOs schedules influence SWM was contrary to the views from FGD with CBOs members of Kingo ward, who had a negative remark on their schedule of SWM activities. According to them their schedule seems not to influence SWM as

most of them were not happy with it, the reason for this was because of spending a lot of time working together as a team from street to street and household to household while in their group there were hard workers and lazier. Observations from their operational area showed that many areas were not well cleaned compared to those of CBO from Mji Mkuu.

Generally the schedules of SWM put by CBOs had relationship with the state of cleanliness of their operational areas. In the study, Mji Mkuu ward CBO effectiveness facilitated by their schedule as each operator had a portion to collect wastes while at Kingo ward the schedule impeded effective SWM as the majority of CBOs members blamed on their schedules. This implied that in the study area CBOs schedules were on one hand facilitated and on other hand impeded the effectiveness of SWM.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings, conclusions, policy implications, recommendations and area for further studies. The chapter begins with a summary which provides the major findings of the study and the conclusion which based on the presentation of the findings of the objectives, policy recommendations which provides the policy direction towards the involvement of CBOs in solid waste management and the final section suggests the areas for further studies by other researchers.

5.2 Summary

The main objective of the study was to examine factors that facilitate or impede CBOs effectiveness in SWM in two selected wards of Morogoro municipality. It focused to examine how administrative and social operation factors facilitate or impede CBOs' effectiveness in SWM as well as to determine the extent to which political factors facilitate or impede CBOs' effectiveness in SWM with specific reference to Mji Mkuu and Kingo wards where KIUM and Twikinde CBOs were officially operating respectively.

The findings showed that CBOs effectiveness on SWM was influenced by various factors which were administrative, political and social operation factors while the other factors remained constants. There were relationship between the effectiveness of CBO in Solid waste management and its related factors. All administration, political and social operation factors had an influence on solid waste management when they were regarded positively, SWM was effective, but when disregarded, the effectiveness of CBOs in SWM could not be attained in the study areas.

5.3 Conclusions

A study has established that the effectiveness of CBOs in solid waste management in Morogoro had not been achieved a hundred percent in the study areas. This was due to a number of factors constituting administration, political and social operations while other

factors remain constant. First structures of solid waste management of the municipal council and CBOs were not collaboratively functioning towards unified goals of sustainable solid wastes management as the majority of the agents of SWM did not reorganize the structures, Second the political arena related to solid waste management in high percentage was not effective solid waste management as the existing policies, legislations and the bylaws related to public health and environmental safety were partially or not observed by the majority of the agents of solid waste management in the municipal council. The community to a large extent could not afford to pay for waste collection fees or charges regardless of small amount charged that in return made CBOs difficult to manage solid wastes in the wards of Morogoro Municipality effectively.

The municipal council and CBOs failure to adopt modern technology in managing solid wastes, to mobilize, organize and coordinate local resource and enforce environmental and health laws has negative affected CBOs effectiveness in SWM, it accounts for the experienced problem of filthy environment caused by uncollected municipal solid wastes which negatively affect socially and economically the majority of the urban people living in the municipality. It typifies the municipal and the CBOs lack of commitment to practice sustainable solid waste management, if other parts in the Tanzanian urban area manage to achieve sustainable solid waste management why not in Morogoro municipality and other municipal councils in Tanzania. To wind up, this has answered the study research questions. It has employed in two wards of the Morogoro Municipal Council.

5.4 Recommendations

For the CBOs be effective in SWM, the respondents provided many recommendations of what should be done in the areas of administration, political and social operation factors.

5.4.1 Improvements in area of administration

In the area of administration factors the respondents provided the following recommendations for improving the CBOs activity of managing solid wastes were provided.

Improving the structure of SWM of the Morogoro Municipality by giving fully mandate to wards and street to control and manage SWM programs and CBOs activities in the collection of solid wastes. The municipal council should be there to receive and evaluate reports from CBOs on functioning.

CBOs and MMC need to manage SWM professionally, by restructuring their organization structure, enhancing cooperation and responsiveness among stakeholders of SWM in the council. Through this way they can determine if their CBOs are effective or not through measuring their profits.

5.4.2 Improvements in political arena

Councillors at ward level are to be neutral in doing their task related to SWM. The organizational structures of SWM are to be reviewed and legalize the positions of street chairpersons or leaders since these leaders are the important people in SWM at street level where solid wastes are produced.

Efforts should be directed towards educating and sensitizing community members about their role in SWM activities. This will enhance their participation in SWM matters thus the CBOs members will work without any problem which in one way or another affect their effectiveness in SWM.

There should be active involvement CBOs Leaders/Members, Street Leaders and community in the process of bylaws making. This will help the needs and interests of CBOs and the community related to SWM to be included in the by-laws.

5.4.3 Improvements in the area of social operation.

CBOs must adopt project management practices in their functionality. They need to get acquainted with project management techniques and tools, know which stage their CBOs activities of SWM are planned, monitor and evaluate their SWM activities regularly. This will enable their activities of SWM effectiveness and when they do not, they can make changes that will yield positive results to their CBOs.

CBOs should have well educated and qualified people who can be able to come up with good reports that can attract sponsors to help them to get money for buying equipment.

The Morogoro municipal council should support CBOs to access loans in financial institutions; this will help them to be well established in operation area and there should be open and competitive way of having the CBOs for SWM because most of them are totally having no capacity of managing solid waste as well.

5.4.1 Policy Implications

CBOs involvement in Solid waste management is widely seen as having an important role in supporting environmental sustainability and healthier community. For that reason, appropriate measures are important to be drawn from CBOs in proper solid waste management. Moreover, a better management of solid waste would reduce the possibility of distracting environment. Generally speaking, one would like to manage solid waste through increasing the importance of CBOs in SWM. Therefore the following policy implications are suggested,

Awareness Creation Campaign, a possible solution to the problem of CBOs ineffective in SWM is education. This will be done convincing communities of the need of proper solid waste handling via awareness creation, also, provision of containers, and encouragement of separation at source and recycling, there should be consultation with CBOs and the community on its problems and priorities. This will include a preliminary study into community awareness of major issues of solid waste management such as the present collection system, current practices of waste storage and community level disposal, willingness to pay, preference for certain systems and practice like separation at sources and the government should involve communities so that will have to support CBOs in SWM.

The government should formulate proper Solid Waste Management (SWM) policies accompanied by the enabling legislation. The municipal council also should formulate the by-laws which are up to date by involving all necessary stakeholders (community

and CBOs members) In order to regulate the operations in proper Solid Waste Management.

5.4.2 Area for Further Studies

The main objective of the study was to examine factors that facilitate or impede CBOs effectiveness in SWM in two selected wards of Morogoro municipality. It focused to examine how administrative and social operation factors facilitate or impede CBOs' effectiveness in SWM as well as to determine the extent to which political factors facilitate or impede CBOs' effectiveness in SWM with specific reference to Mji Mkuu and Kingo wards where KIUM and TWIKINDE CBOs are officially operating respectively. It is recommended that further research should be on local environments which can change the traditional SWM system which is currently practiced by CBOs in study areas to the modern system for sustainability of environments as well as CBOs.

REFERENCES

Abegunde A (2009). *The Role of Community Based Organisations in Economic Development in Nigeria: The Case of Oshogbo, Osun State, Nigeria.* Awolowo University, Ile Ife: Nigeria

Ahmed, S and Ali, M. (2006). *People as partners: Facilitating people's participation in public–private partnerships in solid waste management*. Habitat International.

Alberta Municipal Affairs. (2013), *Basic Principles of Bylaws*. Canada

Al-Khatibu, I etal. (2010). *Solid Waste Characterization, Qualification and Management Practices in Developing Countries.* A case study; Nablus District -Palestine

Armstrong, A. (1987). *Master Plan for Dar es salaam Tanzania. Habitat International Volume 11*

Ashworth, G and Azevedo, P. (2009).*Agricultural Wastes*. Nova Science Publishers Inc: New York

Asian Development Bank. (2014). *Solid Waste Management in the Pacific; Institutional Arrangement.* Asia

Batli.R (2014).*Challenges Facing Local NGOs in Resource Mobilization. Humanities and Social Science Vol.2.No 3* .Hawaii USA: Atlantic International University

Breez,R.(2012).*Municipal Solid Waste Management In Dar es salaam*. World Bank: Toronto

Chinamo, C. (2003). *Municipal Solid Waste Management in the Southern Province Of Sri Lanka: Problems, Issues and Challenges. Waste management Country report.* 2005 ELSEVIER Ltd

Coad, A (2011*). Collection of Municipal Solid Waste, Key Issues for Decision-makers in Developing Countries*. United Nations Human Settlements Programme (UN-H ABITAT): Nairobi, Kenya:

Cointreau-levine S (1999). *Private Sector Participation in Municipal Solid Waste Management. in UNDP Public-private partnerships for the urban environment*. UNDP/Yale.

Cooker-Davies, I.(2000). *The "Real" Success Factors on Projects*; Human System Limited 4 West Cliff Gardens, Folkestone; UK

Dill,B,(2010). *Community Base Organization and Norms of Participation in Tanzania. Working Against the Grain*.

Golwike P.(2008).*Ethical Fundraising. A Guide for Non profit Boards and Fundraisers*. Hoboken .N.J Wiley and Son

Hoffman L. and Muller M. (2001).*Community partnerships in integrated sustainable waste management: Tools for decision makers, experience from the urban waste expertise*. Gouda, the Netherlands

Hoomweg, D etal. (1999). *Composting and Its Applicability in Developing Countries. Urban Waste Management Working Paper Series 8.* Washington, DC: World Bank.

Kaare, (2000) .*The Role of Privatization in Providing the Poor Access To Social Service; The Case of Solid Waste Collection In Dar es Salaam*. Mkuki And Nyota Production: Dar es Salaam

Kaseva,M.(1996).*Waste recycling and resource recovery. A sustainable approach towards, urban solid waste management*. UCLAS and NEMC

Kassim,M And Alli,M.(2003).*Private Solid Waste Collection Service.* Dar-Es Salaam

Kothali, C. (2004), *Research Methodology; Methods and Techniques 2nd revised edition*. New Age International publishers: New Delhi

Kreith, F. (1994). Handbook *on Solid Waste Management*. New York: McGraw-Hill

Kyessi, A.(2000).*Community Participation In Urban Infrastructure Provision: Servicing Informal Settlement In Dar es Salaam*. University Of Dortmund

Larsson, L. (2006). *Mission Impossible-A Study of the Actor-Network of the Waste Management of Gambia*. Stockholm: Sodertorn University College

Li, Y.(2011).*NGO in China and Europe Comparisons in Contrast;* Ashgate Publishing Ltd, England

Majani,B.(200).*Institutional Environmental Planning Management (EPM) .The Case of Solid Waste Management in Dar es Salaam*. University of Dortmund

Malena C,(1995).*Working With NGO's; A Practical Guide To World Bank NGO Operational Collaboration*. Washington DC: WB

Maloba,N. (2012). *Factors Influencing Effective Solid Waste Management: The Case of Municipal Council of Mombasa, Kenya.* University of Nairobi: Kenya

Mansoor,A. and Marielle, S.(1999)."*Lessons from community-based initiatives in solid waste - Task No: 99*

Mbote,P. (2000) .*The operational Environment an d Constrains or NGO's in Kenya. Strategies for good policy and practice*. IELC Working Paper No 2000-2

Meshark,M And Sheuya,S.(2001).*Trekking the Path of Urban Community Based Organization in Tanzania .The Case Study of Five Community Based Organizations in Dar es Salaam*. Dar es Salaam University Press

Mowo,J et al.(2016).*By-Laws Formulations and Enforcement in Natural Resource Management; Lesson From The Highlands of Eastern Africa*, Nairobi: Kenya

Msabila, D. And Nalaila S.(2003).*Research Proposal and Dissertation Writing; Principles and Practices*. Nyambali Nyangwine Publishers: Dar es Salaam.

Mugagga, F.(2006). *The Public-Private Sector Approach to Municipal Solid Waste Management. How does it Work in Makindye Division, Kampala District, Uganda?* Trondheim: Department of Geography, Norwegian University of Science and Technology.

Mwaura, M and Ngugi, K. (2014).*Factors Affecting Performance of Community Based Organizations Projects in Kisii County Kenya. International Journal of Social Sciences Management and Entrepreneurship 1(2):51-6*. Sage Global Publisher: Kenya

Myers, G. A.(2005).*Disposable Cities-Garbage, Governance and Sustainable development in urban Africa*. Chippenham: Ashgate

Narayan,D. (1997). *Designing Community Based Program*. FAO Journal publication.

Nguluma,H.(2003),*Housing Themselves. Transformation, Modernization and Spatial Qualities in Informal Settlement in Dar es Salaam. Published PhD Thesis*. Royal Institute of Technology: Stockholm

North,D.(1990),*Institutions. Institutional Changes and Economic Performance* .Cambridge University

Ogawa, H.(2012).*Sustainable Solid Waste Management in Developing Countries;* WHO Western Pacific Regional Environmental Health Centre (EHC), Malaysia

Okpala,D.(1999),*Upgrading Slum And Squatter Settlement In Developing Countries. Is There Cost Effectiveness? Volume 21 No 1*

Okumu,J.(2011) *Solid Waste Management in African Cities – East Africa.* Makerere University Kampala: Uganda

Pfammatter, R.And Schertenleib, R. (1996). *Non-Governmental Refuse Collection in Low –Income Urban Areas.* Swiss Federal Institute for Environmental Science and Technology, SANDEC. 96pp.

Plammer, J.(2002),*Focusing Partnership. A Source Book for Capacity Building on Public-Private Partnership* .Earthscan Publication Ltd: London

Roch K,Etal (2005). *Municipal Solid Waste Management Challenges In Developing Countries – Kenyan Case Study. Waste Management Report Vol 26*

Rwegasira,et Al .(1996),*Processing .And Paper From The Training Workshop On Solid Waste Management To Officers Responsible For Municipal Solid Waste Management.* NEMC: Dodoma

Schertenleib, R. And Meyer, W.(1992). *Municipal solid waste management in DC's: Problems and issues; need for future research. IRCWD News (No. 26).*Duebendorf: Switzerland

Schuber,P.(1996),*Participation and Partnership in Urban Infrastructure Management .Urban Management Programme*. World Bank: Washington Dc.

Shah, J. (2015), *Compendium of Good Practices; Urban Solid Waste Management in Indian Cities*. India

Shukor,F Etal.(2011).*A Review On The Success Factors For Community Participation In Solid Waste Management International Conference On Management (ICM 2011) Proceeding* . University of Technology: Skudai Malaysia

Sustainable Morogoro Programme (SUMO),(2001).*Final Project Document*, Tanzania

Syed, M.(2005) "*Solid waste management and GIS - a case from Kalabagan area of Dhaka city*, Bangladesh

Tanaka,M.(1998). *Risk Management for Landfill Disposal of Solid Waste*. International directory of Solid waste management.

Tchobanoglous, G.and Kreith, F.(2002). *Handbook o f Solid Waste Management, 2nd edition*, McGraw-Hill Handbooks.

Tukahirwa,J .(2011).*Civil Society in Urban sanitation and Solid waste Management. PhD Thesis. Wageningen University*. Netherlands.

UNEP,(2009).*Developing Integrated Solid Waste Management Plan* - Training Manuals Vol.1-4

UWEP,(1996).*Community Based Solid Waste Management And Water Supply projects; Problems and Solutions Compared ,A Survey of The Literature. WASTE.UWEP Programme in Anschutz; Working Document number 2*. Netherland.

Yarumba.M and Yarumba,T (2015).*Contribution of solid waste management enterprises towards women's income at household level Vol. III: a case of Morogoro municipality*, Tanzania

Zerbock, O. (2003). *Urban Solid Waste Management, Waste Reduction in Developing Countries.* Available http://www.cee.mtu.educ/peacecorps/documents-july03.waste, reduction and incineration FINAL.pdf. [Accessed 25th March 2017]

APPENDICES

APPENDIX I: INTERVIEW GUIDES FOR MUNICIPAL HEALTH OFFICER, WARD HEALTH OFFICERS, WARD EXECUTIVE OFFICERS, COUNCILORS , STREET CHAIRPERSONS AND CBOs' LEADERS.

Dear respondent,

My name is Stephano S. Mpollo**,** a student of Mzumbe **University pursuing** Master of Public Administration (MPA)**.** I am conducting the study on Community Based Organizations' Involvement in Solid Waste Management in Morogoro Municipality; the aim of the study is to examine the factors that facilitate or impede CBOs' effectiveness in solid waste management in selected wards of Morogoro Municipality.

I would be very grateful if you would spare some few minutes for interview. The information that you give will be treated confidential and your identity will not be exposed.

Instructions

Provide appropriate answer for all questions.

PART A. GENERAL QUESTION

1. What is your job description?

i. Municipal health officer ( )
ii. Ward executive officer ( )
iii. Ward health officer ( )
iv. CBO's leader ( )
v. Street chairperson ( )

PART B: QUESTIONS ON SPECIFIC OBJECTIVES

i. Interview questions for WEO

Administrative factors	Political factors	Social operation factors
1. How do you coordinate with CBOs and street government in SWM?	1. Have you introduced any SWM bylaws? YES/NO IF, YES, Do you think the bylaws are supportive to CBOs in SWM? IF, NO, Please explain why the bylaws are not supportive to CBOs in SWM?	1. How many CBOs responsible for SWM are working in your ward?
2. Do you think the municipal's organization structure supports CBOs in SWM.YES/NO.? IF, YES, Explain how is it supported? IF, NO. Please explain the weakness of the organization structure?	2. Do policies and legislations for SWM support CBOs in SWM? YES/NO IF, YES. Explain how do they support SWM? IF, No, What are the weakness with policies and legislations to CBOs involved in SWM?	2. In your views, do you think CBOs have enough finance, human resource and equipments for SWM? YE/NO IF YES, How do financial, human resource and equipment capacity of CBO contribute to effective SWM in your ward? IF NO, Why?
3. What do you think should be done in the area of administration to enable CBOs to be effective SWM?	3. Does the councillor play his/her roles in SWM? YES/NO IF, YES. Explain councillors' role SWM? IF, NO, Why? 4. Do councillor's role have any implication to effective SWM?YE? /NO IF, YES, Explain them? IF NO, why? 5.A Councillor, being a political figure, does he/she interferes with your responsibilities in SWM? YES/NO IF, YES, How does he /she interferes? IF, NO, Is his /her interferences significance in SWM? 6. Do you cooperate with councillors in SWM? .YES/NO IF YES, is the cooperation supportive to CBOs in SWM? IF NO, why? 7. What do you think should be done in the area of the political aspect to enable CBOs to be effective SWM?	3. What do you think should be done in the area of operation to enable CBOs to be effective SWM?

II. Interview Questions for MHO and WHO

Administrative factors	Political factors	Social operation factors
1. How do you coordinate CBOs and lower level government (ward and street) in SWM?	1. Mention legislations or policies guiding SWM?	1. How many CBOs responsible for SWM are working in your ward?
2. Do you think the organization structure of SWM is supportive to CBOs in SWM.YES/NO.?	2. Do these policies and legislations support CBOs in SWM? YES/NO IF YES, How do they support SWM? IF NO, Why?	2. In your opinion ,do you think CBOs have enough capacity (finance ,human resource and equipments) for SWM? YES/NO
IF, YES, Explain how does it support?	3. Are there compliances of the bylaws, policies, directives and legislation on SWM? YES/NO	IF, YES. How do they contribute to effective SWM?
IF, NO. Explain why?	IF YES, How the compliances support SWM?	IF NO, how are they weakening CBOs' effectiveness in SWM?
3. What do you think should be done in the area of organizational structure to enable CBOs to be effective SWM?	IF NO, Why there are no compliances?	3. What do you think should be done in area of operation to enable CBOs to be effective SWM?
	4.Have you introduced any by-law related to SWM?YES/NO IF YES, In your opinion do you think the bylaws support SWM? IF NO. Why?	
	5. Do you cooperate with councillors and CBOs in SWM? .YES/NO IF, YES, How does the cooperation, support SWM? IF, NO. Why?	
	6. What do you think should be done in the area of the political aspect to enable CBOs to be effective SWM?	

III, Interview questions for CBOs members

Administrative factors	Political factors	Social operation factors
1. How does the organization structure at municipal and ward level work to support SWM?	1. Do councillors play their role in SWM? YES/NO IF YES. How do their roles support your CBO in SWM?	1..Do you provide any support to CBOs' members on SWM?YES/NO
2. Do you think the organization structure is supportive to CBOs for SWM? YES/NO	IF NO. Why? 2.Do you cooperate with councillors, WEO and street chairperson in SWM? .YES/NO	IF, YES. Mention kind of support? IF NO; Why?
IF, YES, How does it supports CBOs in SWM?	IF YES, How does the cooperation supports CBOs in SWM?	2.Do the CBOs have enough fund ,equipment and human resource important for SWM?YES/NO
IF, NO. Please!, explain what is the weakness of the organization structure?	IF NO, why? 3. Mention legislation, by-laws and policy governing CBO in SWM? 4.Are you involved in making by-laws related to SWM?YES/NO	IF, YES. How are they supportive in SWM? IF NO, What are the solutions? .
3. Does your internal organization structure of your CBO support SWM?YE/NO IF YES; How? IF NO, why?	IF, YES. How the involvement does help CBO in SWM? IF, NO. Why?	3. What do you think should be done in area of operation to enable CBOs to be effective SWM?
4. What do you think should be done in the area of organizational structure to enable CBOs to be effective SWM?	5.Do you comply with the by-laws ,policies as well legislations related to SWM?YES/NO IF YES, How the compliance is supportive to SWM? IF NO, Why?	
	6. Do you think the by-laws support CBOs in SWM?	
	IF YES. How? IF, NO. Why?	
	7. What do you think should be done in area of political aspect to enable CBOs to be effective SWM?	

iv. Interview Questions For councillors

Administrative factors

1. Does the organization structure support SWM.YES/NO.

IF, YES, Explain how?

IF, NO. Why.

2. What do you think should be done in the area of administration to enable CBOs to be effective SWM?

Political factors

1. Do you cooperate with CBO in SWM? YES/NO

IF, YES. How your roles support SWM?

IF, NO. Why?

2. Mention policy, legislation or bylaws related to SWM?

3. How policy, legislation and bylaws supportive to CBOs for effective SWM?

4. Have you made any bylaws related to SWM? YE/NO

IF YES, How do they support SWM?

IF NO, Why?

5. Do CBOs comply with legislations and policy related to SWM?YE? /NO

IF YES, How does the compliance influence effective SWM?

IF NO, why?

6. Do you cooperate with WEO and CBOs in SWM? .YES/NO

IF YES, How does your cooperation, support SWM?

IF, NO. Why

7 .What do you think should be done in the area of the political aspect to enable CBOs to be effective SWM?

Social operation factors

1. How many CBOs involve in SWM in your ward?

2. Does CBO have enough funds, equipment and human resource important for SWM? YES/NO

IF, YES. How do they support effective SWM?
IF, NO. Why?

3. What do you think should be done in the area of operation to enable CBOs to be effective SWM?

v**. Interview Questions for street chairpersons**

Administrative factors	Political factors	Social operation factors
1. How does the organization structure for SWM works?	1. Can you mention by-laws, legislations and policies governing SWM?	1. How do CBOs collect and transport Solid wastes?
2. Do the organization structure supports CBOs in SWM? YES/ NO.	2. Do bylaws, policies and legislation support SWM in your ward? YES/NO	2. In your view, do you think CBOs have enough capacity (finance, human resource and equipment) for SWM?
IF YES, Explain how?	IF, YES. Explain how are they supported SWM?	IF YES. How do they support effective SWM?
IF NO. Why?	IF, No. why?	IF NO, Why?
3. What do you think should be done in the area of administration to enable CBOs to be effective SWM?	3.Do you cooperate with councillors, WEO and CBOs in SWM? .YES/NO	3. What do you think should be done in the area of operation to enable CBOs to be effective SWM?
	IF YES, How does the cooperation, support CBOs in SWM?	
	IF NO. Why?	
	4. Do you get any political interference from councillor in SWM? YES/NO	
	IF YES, How does his/her interference supports SWM?	
	IF NO, what if they were to interfere and what will be their strengths in SWM?	
	5. What do you think should be done in the area of political aspect to enable CBOs to be effective SWM?	

APPENDIX II

Focus Group Discussion (FGD) Guide for CBOs' Members

My name is Stephano S. Mpollo, a student of Mzumbe **University pursuing** Master of Public Administration (MPA).I am conducting the study on Community based organization involvement in Solid waste management in Morogoro municipality; the aim of the study is to examine the factors that facilitate or impede CBOs' effectiveness in solid waste management in selected wards of Morogoro Municipality.

I would be very grateful if we would spare some few minutes for discussion. The information that you give will be treated confidential and your identity will not be exposed.

QUESTIONS RELATED TO SPECIFIC OBJECTIVES TO BE DISCUSSED IN FGD

(i) Administrative Factors

1. Do you know your organization structure for SWM in municipal council? YES/NO
   IF YES, How does it support you in SWM?
   IF NO, Why?
2. Are you aware of your internal organization structure for SWM? YES/NO
   IF YES, How does the internal organization structure in SWM works?
3. Does the internal organization structure supports CBOs in effective SWM? YES/NO.
   IF YES, Explain how does it supportive to SWM?
   IF, NO. Why?
4. What do you think should be done in the area of administration to enable CBOs to be effective SWM?

(ii) Political factors

1. .Do the councillors play their roles in SWM? YES/NO
   IF, YES. How their roles are supportive to you in SWM?

IF NO, Why?

2. . Point out any legislation, bylaws and policy governing your CBO in SWM?
3. Do you think that the bylaws, legislations and policies are favourites to CBOs in SWM? YES/ NO

   IF, YES. Explain the strengths to effective SWM?

   IF, NO. What do you think are the weakest of the bylaws, legislation and policies in SWM?
4. Are you involved in making bylaws related to SWM? YES/NO

   IF, YES. How are you involved?

   IF, NO. Why?
5. Do you think your involvement, support SWM? YES/NO

   IF YES, How does it support SWM?

   IF NO, Why?
6. Do you cooperate with councillors and ward or municipal government in SWM? . YES/NO

   IF, YES, How does the cooperation contribute to your CBO in SWM?

   IF, NO. What is the weakness of the corporation?

7. What do you think should be done in the area of the political aspect to enable CBOs to be effective SWM?

(ii) Social Operation Factors

1. Does the schedule used by your CBO in SWM manageable? YES/NO

   IF YES, How does it support your activities of collection and transportation of solid wastes?

   IF, NO, what do you think is the best way to schedule SWM activities?
2. How are you paid?
3. Are you satisfied with the amount paid? YES/NO

   IF YES, How does it support you in SWM?

   IF NO, Why?

4. Do you get any support rather than wages when you have critical social problems? YES/NO

IF YES, Mention the kinds of support, does the support, motivate you in handling of solid wastes effectively?

IF NO, Do you think those supports you in SWM?

5. Does CBO have the capacity in terms of equipment, finance and human resource for effective SWM? YES/ NO.

IF YES, How do they support SWM?

IF NO, Why?

6. What do you think should be done in the area of operation to enable CBOs to be effective SWM?

APPENDIX III: OBSERVATION CHECKLIST

No	Observation question	
1	How waste is collected?	✓
2	How waste is transported?	✓
3	Environment where CBOs operate?	✓
4	Infrastructures used in collection and transportation of solid waste?	✓