

**EMPOWERMENT OF CBOS THROUGH CAPACITY BUILDING IN
SERVICE DELIVERY ON SOLID WASTE MANAGEMENT:
A CASE STUDY OF MSASANI WARD, KINONDONI MUNICIPALITY,
DAR ES SALAAM**

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**A PROJECT REPORT SUBMITTED AS PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE MASTER DEGREE OF COMMUNITY
ECONOMIC DEVELOPMENT OF THE OPEN UNIVERSITY OF
TANZANIA**

2016

CERTIFICATION

I, the undersigned, certifies that I have read and here by recommends for the acceptance by The Open University of Tanzania a dissertation titled “Empowerment of Community Based Organization through Capacity Building in Service Delivery to the Community on Solid Waste Management” in partial fulfillment of the requirement for the award of Master Degree in Community Economic Development (MCED) of The Open University of Tanzania.

.....

Dr. Harrieth G. Mtae

(Supervisor)

.....

Date

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DECLARATION

I, **Godfrey G. Mkude**, do hereby declare that this dissertation is my own original work and that it has never been presented to any other institution and will not be presented to any other institution other than The Open University of Tanzania.

.....

Signature

.....

Date

DEDICATION

This study work is dedicated to my lovely wife Celina Godfrey for her physical and moral support, Dr Charles Mkalawa for his strong remarks in project implementation, last but not least to Ms Mariam Hassan for her full support in the accomplishment of this study.

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Different people contributed to the success of this work. It is therefore not easy to mention all of them by their names. However, it is worth to name some individuals.

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ABSTRACT

The aim of this study was to find out the effectiveness of the CBO's capacity in service delivery in the communities. The theories and literature covered equipped the relevant conceptual framework for the study that considered basic components of input and process including outputs. This study adopted case design and data analysis involved qualitative and quantitative research approaches; while data collection techniques included questionnaires, interviews, focus group discussions and documentary reviews. The findings show that 80% (1618.8t/day) of solid waste management in Msasani ward are generated from the households, business premises along the coastal areas of Msasani beach. However, 52% of the respondents indicated that, solid waste dropped in their area, 69% of the respondents put their garbage outside their premises and waited for the CBOs to come and collect them, while 71% of the respondents said that the service provided by the CBO was not good because they took too long to come and collect the garbage. It can be concluded that the overall solid waste management service is poor. Much waste was generated compared to the waste collected and transferred to the disposal site. Inadequate solid waste collection tools and limited access of vehicles for transportation of solid waste materials to the final disposal was the cause of accumulation of waste in the particular areas. This study recommends that in order to enhance efficiency and effective solid waste management, the CBOs should have sufficient budget for buying more vehicles and for employing more people to collect solid waste in the community. By doing this, the CBO's services will improve and they will be able to solve the problem of solid waste management in the community.

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LIST OF ABBREVIATIONS

BORDA	Bremen Overseas Research and Development Association
CBOs	Community Based Organisations
CED	Community Economic Development
CNA	Community Needs Assessment
DSM	Dar es Salaam
EU	European Union
FGD	Focus Group Discussion
MLHSD	Ministry of Lands and Human Settlements Developments
MMG	Msasani Mazingira Group
NEAP	National Environmental Action Plan
NEMC	National Environment Management Council
NEP	National Environmental Policy
NGO's	Non-Government Organizations
NHSDP	National Human Settlement Development Policy
PPP	Public Private Partnership
RCC	Refuse Collection Charges
SPSS	Statistical Package for Social Sciences
SWM	Solid Waste Management
SWOT	Strength Weakness Opportunity Threat
UNEP	United Nation Environmental Program
WEO	Ward Executive Officer

CHAPTER ONE

1.0 PARTICIPATORY NEEDS ASSESSMENT

1.1 Background Information of the Study

This chapter describes the participatory needs assessment of the CBO (Msasani Mazingira Group) at msasani ward in Kinondoni Municipality in Dar es Salaam City and presents the findings of the CBO effectiveness on solid waste management in the community.

According to Community Economic Development (CED) (2009) participatory assessment is a method of determining from the insiders' point view, what activities are needed and can be supported whether the insiders accept the activities proposed by outsiders and whether the activities are reasonable and practical. In order to carry out this assessment, the researcher collected data and information using different techniques namely, review of existing documents, Focus Group Discussions (FGDs) and observation. These techniques provide the best way of assessing the community needs.

The community needs assessment involve looking at what is needed or missing, and working together to correct or improved an identified problem or service gap (Charles, 2012). It could be looking at your/our home to decide what needs repair or change. Needs assessment done on a community involves looking at the community to decide what is needed to get the community the way people want or need it and usually this means some improvement to the community. A needs assessment offers picture of what is happening or needed in the community.

It can be done on one idea or on a number of topics that involve improving the community overall. Eventually the community itself identifies some change or improvement and start talking about how to make it happen.

In the past, before involving the private sectors in solid waste management in 1990s, the situation was worse since the collection and disposal of waste was more challenged and was not properly managed by the government. Thereafter the government invited the private sector CBOs, NGOs, and private companies and it seemed that this approach was a solution to the problem in the communities and to Dar es salaam municipalities as well.

It therefore, relying on the current situation in solid waste management in Kinondoni Municipality the question remained, whether the involvement of private sectors such as CBOs in solid waste management has helped to solve the problem to the communities.

Hence, this study therefore, aimed at exploring the effectiveness of Community Based Organization's to collect solid waste and at analyzing issues brought by CBOs to the communities in service delivery, taking Msasani ward as a study area in Kinondoni municipality.

1.2 Community Profile

This study was conducted in Dar es salaam City in Kinondoni Municipal Council, whereby Msasani ward was selected to as a case.

1.2.1 Study Area

Kinondoni is one of the Dar es Salaam city municipality in Tanzania situated along the Indian Ocean. It covers an area of 531.621123 square kilometers, with a population of 1,775,049 people of whom 860,802 are males and 914,247 females. The average house hold size in Kinondoni is 4.0 with population growth rate of 5.0 % per annum (URT Census 2012). Politically and administratively, the municipal is divided into 34 wards of “Magomeni, Makurumla, Ndugumbi, Tandale, Mwananyamala, Msasani, Kinondoni, Mzimuni, Kigogo, Mabibo, Manzese, Ubungo, Kibamba, Goba, Kawe, Kunduchi, Bunju, Mbweni, Makuburi, Mburahati, Makumbusho, Sinza, Kijitonyama, Kimara, Mikocheni, Mbezi, Hananasif, Saranga, Kwembe, Msigani, Mbezijuu, Makongo, Mabwepande and Wazo”

1.2.2 Population and Ethnic Groups

Msasani ward is a peninsula at northeast of the city center. According to URT census (2012), Msasani ward constitutes five ‘mitaa’ which are Mikoroshini, Makangira, Oysterbay, Bonde la Mpunga, and Masaki with a total population of 48,920 people, in which 24,797 female and 24,123 are male, with average household size of 3.9.

There are no dominant ethnic groups in Msasani ward area, who are resettled in this area are of different ethnic groups from different areas inclusive a mixed number of natives and immigrants.

1.2.3 Employment

Most of the people in the area are employed in the formal sectors. These include Government civil servants, public officials. They account about 72% of the working

population in the area. The remaining 28% are employed in the informal sectors mainly engaged in commerce and trade such as shopkeepers, artisans and vendors. (URT census 2012)

1.2.4 Economic Base

Majority of the people living in Msasani ward are civil servants or retired civil servants and businessman. Others engage in commerce (shops, hotels and bars, supermarkets), trade, small-scale enterprises and various informal sector activities.

1.3 Community Needs Assessment

The community needs assessment was conducted in January 2016 in order to explore the effectiveness of Community Based Organizations capacity on solid waste management in Msasani ward community.

Before Public Private Partnerships (PPP) was initiated, the situation was worse since the collection of solid waste was more challenging and was not properly managed by government. Therefore, the introduction of PPP seems to be a silver bullet to the problem in the community and to the municipality as well. Sooner than later, a numbers of CBOs got involved in solid waste collection, and other CBOs have shown serious interest in getting involved. They see this as an opportunity to generate income with these activities.

Community Needs Assessment is an exercise of asking the group members or community what they see as their most important need. Is the method of collecting

information from people about their ideas, feelings, plans, beliefs, social, and financial backgrounds. Usually it involves questionnaires, interviews and Focus Group Discussions (Arlene , 1985).

It's the important way of involving community members in surveys, seeking opportunities, and having collective problem solving. Community Needs Assessment at Msasani ward was conducted in January 2016, in order to explore the effectiveness of Community Based Organizations in Solid Waste collection and disposal, to find out problems they faced, and to assess collection performance in partnership with community and the Municipal Council, and to identify gaps in relation to available waste tax collection from households, and identify opportunities that the community can mobilise for itself. Participatory way was used in order to identify the real needs of the group members and obstacles they face in their daily activities.

Furthermore, the study was done based on the appropriate use of research design and methods in order to obtain relevant data, would help to plan a project that would bring a desirable changes to the CBOs and the community in order to improve solid waste management in Msasani ward, as well as other wards of the Municipal councils in Dar es salaam City.

1.3.1 Objective of Community Need Assessment(CNA)

1.3.1.1 General Objective

The main objective of the CNA was to find out the effectiveness of CBOs involved in solid waste management in the public private partnership approach in a view of

recommending some improvements to the CBOs, community and authorities at all level in service delivery.

1.3.1.2 Specific Objectives

- i. To assess the performance of CBOs in service delivery to the community in solid waste management
- ii. To assess the community willingness to participate in solid waste management
- iii. To identify challenges related to solid waste management in the community
- iv. To identify the existing opportunities that could be used by CBOs and community for improving solid waste management.

1.3.2 Research Questions

- i. What are the capacity of the CBOs in solid waste collection and disposal in Msasani ward?
- ii. How does the community members in Msasani ward participate and contribute in solid waste management?
- iii. What are the challenges faced by CBOs in service delivery in the community?
- iv. Is there any opportunity the CBO and the community can use to improve solid waste management?

1.3.3 Research Methodology

In methodology, the researcher outlined the methodology and approaches that was used in the collection of data. Community Needs Assessment method is a logical

purposeful formal and critical activity and as a systematic step by step process, and as a method of science which identifies a problem, gathers data, and interprets the data which leads to conclusion or raising the major identified problems.

1.3.3.1 Research Design

A research design is the management of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2009). It is a conceptual structure within which research is conducted showing how the data will be collected, measurement and analysis of data.

Research design also refers to the scheme outline or plan that is used to generate answers to research problems (Orodho, 2003). The researcher used case study and both qualitative and quantitative methods in data collection. The findings were obtained through CNA to get the core need of Msasani Mazingira Group in their capacity of delivering service to the community on solid waste management.

1.3.3.2 Targeted Population

Population refers to the group of people, event, or things of interest that the researcher wishes to investigate. Population forms a basis from which the sample or subjects for the study is drawn (Bryman, 2008). The population of this study was made up of all the staff from the CBO Msasani Mazingira group who included the management officers and the other staff and the community together with the ward and mitaa leaders.



Figure 1.1: Kinondoni- Msasani Ward

Source: Mapping and division units. Kinondoni municipality, 2014

1.3.3.3 Area of the Study

Study area refers to the scope of the study where the research takes place. The researcher decided to select Msasani ward as a study area. The researcher chose the area because the CBO who in this case are the community that the researcher wants to work with live in Msasani ward. Also the place is reachable to the research due to the fact that the researcher had access to the place it was less costly for the researcher to collect data at the same time attending to his other responsibility.

1.3.4 Sample and Sampling Techniques

1.3.4.1 Sample Size

Sample size refers to the number of items to be collected from the universe to constitute a sample. The targeted group must be of an optimum size, which should

neither be excessively large nor too small (Kothari, 2004). The researcher in this CNA used the sample size of 115 people.

Table 1.1: Sample Size and Sampling Intensity in Mitaa

Respondents Category	Number of respondentsMsasani					Bonde la Mpunga
		Makangira	Oysterbay	Masaki	Mikoroshini	
Households	90	18	18	18	18	18
Commercial/ Traders	25	5	5	5	5	5
TOTAL	115					

Source: Study survey

1.3.4.2 Sampling Techniques

Random sampling: Random sampling is often called straight random sampling. Random sampling requires that each members of the population have equal chance of being selected (as is the main goal of probabilty sampling). Random sampling is selected by assigning to a number of each member in the population list and then use a random numnber table to draw out the members of sample (Mcnealy 155).

In random sampling, each person in the universe has an equal opportunity of being chosen for the sample and every collection of persons of the same size has an equal probability of becoming the actual sample (Bailey, 1994). Random sampling was used to choose the actual respondents in order to avoid any bias. Random sampling served to objectify the choice from a universe that had been obtained.

The simple random sampling was used by the researcher during his research activities by randomly selecting the population to be used as a sample for instance the researcher select different people in the community such as the shopkeepers, the

bar,hotel and restaurant workers,households, leaders, and among other people in the community as a sample. The researcher used random sampling because it does not bias any one.

Stratified sampling: Stratified sampling is the one which population is divided into subgroups or strata. When a few characteristic are known about a population, stratified sampling is preferable because the population may be arranged in subgroups and then randomly sample from the groups (Henry, 2008)

The researcher used stratified sampling in order to know the characteristic of the population; as a result, the researcher put the population into a strata by taking the 115 populations and divide them again into 57 each groups and then into 27 groups and started to select from each group in the community and in the end the researcher get the characteristic of the population.

The researcher used this method because it has a high statistical precision and that also means that it requires a small sample size which can save a lot of time money and effort of the researcher.

Purposive sampling: Purposive sampling is a non probability sample known as judgemental,selective,objective sampling which is refered to as purposeful. Purposive sampling is the process of selecting a sample on the basis of one;s own knowlledge of population, its elements, and the nature of research aims when it comes to select a unit for instance people, cases/organization, events ansd pieces of data that are to be studied.

The researcher used purposive sampling to a CBO as an organization in the community aimed at empowering the CBO capacity building in service delivery in the community by conducting several sensitization meetings which aimed to improve the service delivery of the Cbo in the community by the help of the research team and community itself.

1.3.5 Data Collection Methods

Data collection methods refer to the process of generating information that has been systematically observed, recorded, organized, or defined in such a way that logical process and inferences may occur (Dawson, 2000). The researcher used secondary data and primary data collection methods to get information.

1.3.5.1 Primary Data

Primary data collected by using such methods like direct observation, interviews questionnaire and focus group discussion. The researcher used this methods so as to get information from the people concerned that is the community and the CBO

Interviews: Interviews were conducted to households members to obtain their views on effectiveness of Msasani Mazingira Group (MMG) in solid waste management, participation of the community in the solid waste collection and disposal, and how they contributed to the cost of solid waste management and in the way it generated income to the community members of MMG. Formal and informal discussions were also applied to solicit views of MMG group leaders, Ward Executive Officer, mitaa leaders, the Councilor and other organized groups on similar the potential for improvement of MMG in solid waste management in the Ward.

Structured questionnaire for households: This questionnaire was designed for households for those who used or did not use the services provided by CBOs in five mitaa in the ward. The aim was to find out the effectiveness of CBOs basing on the views of the households. The questionnaire was also used to know the willingness of households to pay the fees for the service arranged by Msasani ward authority.

Semi structured questionnaire for CBO: This was designed for the CBO involved in collection and disposal of solid waste in study area. The purpose of this questionnaire was to get out the performance of solid waste collection and disposal in group, constraints, successand how do they get support from Municipal Council or other authorities.

Check list for leaders: The checklist was for government officials in ward office (WEO), local mitaa leaders and Municipal officers. The checklist designed to collect information on how they were involved in solid waste management practices with community in the ward as well as in Municipality in general, and how they supported the service providers (CBOs) in management of solid waste.

Participant Observation: Direct observations were used to documents the actual conditions in household waste management and how CBOs delivered their services to households in order to corroborate their responses from interviews and questionnaire surveys. Observation with the aid of checklist, involved watching what is happening, and recording events on the spot

Observation was employed when visiting household respondents where the solid waste was collected for disposal. This method helped to observe how the households handled the solid waste including the type of waste generated by households, storage of waste, collection methods, who was providing the service, who was responsible for waste handling at household level, what they do with waste, and characteristics of the households.

The researcher sought to observe whether the solid waste was dumped illegally in open spaces, valley, or road/streets reserves. Such guided observation helped to focus on solid waste management practices at household level. It also helped to fill the gap and verify information gathered by other methods of data collection.

Focus Group Discussion (FGD): The focus group approach was selected as it provides a fast and efficient manner to get a preliminary feel of the resident's views on local problems and priorities in a sphere of trust and meaningful interaction (Morgan,1993). The focus group participants involved were drawn from amongst the CBO members. In this study 3 focus group discussions were conducted involving 10 persons per group. this number allowed each person in the group to have a chance to speak. Focus group discussions were administered together with CBOs group members of different ages. In order to access more qualitative information, the survey applied focus group discussions by selecting community leaders and key respondents from amongst the organization members.

A Checklist was used as a guide for the discussions. Focus group discussions were used to identify problems and prioritize collective solutions. The objective of the focus group sessions in this study/research were to identify the kind of problems they faced in solid waste management and to identify the leading problems in order to come out with so as to acquire assistance for building CBO capacity in terms of acquisition of equipment and financial support. Quantitative data from the focus group discussions and filled questionnaires by households were analyzed using the Statistical Package for Social Scientists (SPSS) and were presented in frequency, percentages, charts and tables.

1.3.5.2 Secondary Data

The data from published source like textbooks, encyclopedias, journals, newspapers, internet, supplemented primary data. The researcher read some books and reviewed journals and also used the internet. Data was collected through review of different and relevant official documents from various sources such as Municipal, Executive Ward office, Mitaa chairpersons and CBOs reports, records and group profiles. Further literature was obtained from libraries.

1.3.6 Data analysis

Data analysis and presentation refers to preparation of factual information for dissemination or further treatment including compiling, verifying, ordering, classifying and interpreting (Kumar, 2005). The data was systematically organized. The researcher used both qualitative and quantitative methods to analyze the data. The quantitative data have been analyzed by using Statistical Packaging for Social

Science (SPSS) software to present in forms of table, chart, graphs to get frequencies and percentages.

1.3.7 Justification of the Study

In a recent times, solid waste management has become a major development challenge economically and socially in Tanzania as well as in Dar es salaam city and its municipalities. It has increasingly become a problematic issue which necessitates intervention of solid waste management practices between public and private sectors to find out lasting solution to the problem after the government as the provider of solid waste management, failed to deliver the service to the city citizens. Ineffectiveness of solid waste management affects people's health and lives and leads to environmental deterioration.

This study, therefore, intended to find out the effectiveness of CBOs capacity in management of solid waste in the community and explore appropriate mitigation on how much quantity of unmanaged solid waste can be treated through capacity building to CBOs and community. Despite the immensity of the problem, very little research on solid waste management has been carried out to research and find out ineffectiveness of public and private partnership intervention.

Despite most research on solid waste management concluded and recommended as public and private sectors partnership as the best solution to combat and clearing solid waste management problem in human settlements. This study, therefore, will

serve as a reference point to the central government and local government, private sectors, NGO's and CBO's.

1.4 Community Needs Assessment Findings

This part of the reports presents findings of a community needs assessment conducted in Msasani Ward covering five mitaa of Makangira, Masaki, Oysterbay, Masaki, and Bonde la Mpunga located in Kinondoni Municipality. Data analysis has been done by using a Statistical Package for Social Sciences (SPSS) which give frequencies and percentages, and descriptive method was applied to analyse the results and presented in form of graphs and charts.

Table 1.2: Solid Waste Materials Dropped on Environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Iron Material/ Scrappers	28	24.3	24.3	24.3
	Food remains	7	6.1	6.1	30.4
	Hard papers, plastics and boxes	60	52.2	52.2	82.6
	Unused home utilities	4	3.5	3.5	86.1
	Remain building materials	16	13.9	13.9	100.0
	Total	115	100.0	100.0	

Source: Study Findings 2016

The survey conducted by this research shows that, hard papers, plastics, and boxes are mostly disposed compared to other waste materials. Hard papers, plastics and boxes, iron materials, remains of building materials, food remains and unused home utilities are disposed by 52%, 24%, 14%, 6%, and 4% respectively.

Table 1.3: Solid Waste Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Collected and burn	18	15.7	15.7	15.7
	Put on collection point	17	14.8	14.8	30.4
	Put outside and waits for collectors by CBO	80	69.6	69.6	100.0
	Total	115	100.0	100.0	

Source: Study Findings 2016

The research shows that most of the respondents (69%) place waste outside their homes and wait for the collectors to come and collect it. This was followed by 16% of the respondents who burn waste either in pits or on the open ground, The least group of respondents (15%) took waste to collection points please look. See Figure 2 for more details.

Moreover 69 percent of the people in the community said that they used to put solid waste outside their homes and wait for the CBOs to come and collect them, while 15% of respondents said they took their solid waste direct to the collection points without waiting for CBOs.

Table 1.4: Awareness on Solid Waste Management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	88	76.5	76.5	76.5
	No	27	23.5	23.5	100.0
	Total	115	100.0	100.0	

Source: Study Findings 2016

The research found that there is huge level of awareness regarding solid waste since 77% of the respondents said that they are very familiar and attend awareness raising meeting compared to 23% of the respondents who have never attend those meetings. See table 1.4 for more details. However, 77 percent of the people in the community said that they usually attend the meetings and were taught how to manage their environment. This implies that the majority of people in the community was aware of the issue of solid waste management and had understood its importance.

Table 1.5: Organizer of Awareness Meetings

	Institutions	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CBOs	12	10.4	10.4	10.4
	Streets/Ward leaders	100	87.0	87.0	97.4
	Others	3	2.6	2.6	100.0
	Total	115	100.0	100.0	

Source: Study Findings, 2016

However, analysis has shown that ward leaders were in conducting awareness raising meetings compared to CBOs, since out of 115 total samples, whereby 87 percent of awareness meetings were conducted by ward leaders compared to 10.4 percent which were conducted by CBO's members.

Table 1.6: Number of Meeting Attended Per Year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Once	26	22.6	22.6	22.6
	Twice	32	27.8	27.8	50.4
	Thrice	21	18.3	18.3	68.7
	None	36	31.3	31.3	100.0
	Total	115	100.0	100.0	

Source: Study Finding, 2016

However, the study findings show that 18% attended the meeting thrice, 28% attended twice and 23% attended twice, while 31% of the respondents did not get the opportunity to attend those meetings in the community.

Table 1.7: Willingness to Pay Fee for Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	115	100.0	100.0	100.0

Source: Study Findings, 2016

This research showed that people in the community said that they were ready to pay waste collection fees, Findings shows that 100% of the respondents agreed that they could afford to pay the garbage collection fees every month from their monthly earnings. This study has shown that, people do not pay not because they don't have money but rather because they don't want to pay because the service provider (CBO) does not collect waste appropriately and on time.

This implies that, the waste collection exercise could be sustainable since the respondents were ready to pay for the services of waste collection which in turn would provide an income and profit to any organization or institute dealing with solid waste collection.

Table 1.8: Service Rated by the Community

	Rate	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	33	28.7	28.7	28.7
	Not Satisfactory	82	71.3	71.3	100.0
	Total	115	100.0	100.0	

Source: Study Findings, 2016

The research showed that the level of satisfaction to the CBO's by the community is not satisfying since 71 percent of the people in the community said that the CBO's services were not good enough due to the fact that they were not collecting the garbage in time; so without being collected. So their service is not satisfactory and they are supposed to improve it for the better collection of the solid waste in the community.

From the observation point of view, these findings are valid because, it was observed that other places like shops, markets, and open spaces were found with stinking piles of uncollected garbage. These results therefore show that CBO's there is a need to improve their services through capacity building.

Table 1.9: The Performance of CBO on Solid Waste Collection

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very high	17	14.8	14.8	14.8
	Moderate	64	55.7	55.7	70.4
	Low	26	22.6	22.6	93.0
	Poor	8	7.0	7.0	100.0
	Total	115	100.0	100.0	

Source: Study Findings, 2016

The performances of CBOs indicate that, 55.7 percent of the people in the community said that there has been moderate improvement of the CBO. This means that they still have to do a lot of improvement for instance collecting the garbage in time to reduce the outbreak of diseases. However, though some initiatives made by CBO's to improve solid waste collection are not promising since the level of

respondent to the improvement of solid waste management problem in the community is still damaged and potential numbers of people have negative views.

Table 1.10: Responses Distribution on Solid Waste as Major Problem

	Respond	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	87.0	87.0	87.0
	No	15	13.0	13.0	100.0
	Total	115	100.0	100.0	

Source: Study Findings, 2016

This research acknowledges that 87% of that respondents argued that solid waste is a serious problem for their environment as table 1.9 indicate. These people proposed that the CBO's as well as Municipal Council should take serious steps to control waste generation and management.

1.5 Community Needs Prioritization and Ranking

In this case community members prioritize problems which ranked higher compared to other problems.

Table 1.11: Need Assessment Priority and Ranking

Stress/ Needs	Source of information	Score	Total participant	Priority position
CBO operational financial/fund problem	Focus group	11	30	1
Lack of proper collection truck vehicle	Focus group	8	30	2
Failing cooperation with municipality	Focus group	3	30	4
Illegal solid waste dumping	Focus group	1	30	5
Social problems influencing operation	Focus group	6	30	3
Poor accessibility to households solid waste source	Focus group	1	30	5

Source : Study Findings, 2016

The ranking in Table 1.10 shows that the participants gave the highest score to the financial problem. All groups addressed the operational funds in CBO as most problem faced in solid waste management in msasani ward.

Table 1.12: Focus Group Discussion Results

S/No	Problem mentioned	Rank Given		
		Group One	Group Two	Group Three
1	CBO operational financial/funds problems	4	3	4
2	Lack of proper collection truck vehicle	3	2	3
3	Failing cooperation with municipality	1	1	1
4	Illegal solid waste dumping			1
5	Social problems influencing operation	2	3	1
6	Poor accessibility to households solid waste sources		1	

Source; Study Findings 2016

The Focus Group Discussion included 30 members from 3 groups, each with 10 members. They discussed and ranked problems according to their opinions.

1.6 Conclusion

It has been observed from the findings that, the amount of waste disposed from the households in the ward is very high compared to the capacity of CBO's to collect. Therefore, the CBO's should take more steps to improve their services to the community in dealing with waste generation, collection and management. This exercise profitable and may contribute to employment of citizens in ward. It is a good idea even to encourage investors to come and invest in solid waste management. The laws, regulations and by laws should be introduced and should be made to be more effective to control the serious problem of solid waste generation, collection and disposal as well as management.

CHAPTER TWO

2.0 PROBLEM IDENTIFICATION

2.1 Background of the Research Problem

The collection, transport, treatment, and disposal of solid waste, particularly waste generated in medium and large urban centers, have become a relatively difficult problem to solve for those responsible for its management. The problem is even more acute in developing countries where financial, human and other critical resources generally are scarce.

Solid waste management is one among the basic essential services provided by the municipal authorities in the country aimed at keeping urban centers clean. However, it is one of the poorly rendered service in the country as the operations applied are unscientific, outdated, and inefficient with low population coverage is and the poor are marginalized.

Municipal laws governing the urban local bodies do not have adequate provisions to deal effectively with the ever growing problem of solid waste and following rapid urbanization the situation is becoming more critical. According to the 2012 World Bank report, currently world cities generate 1.3 billion tons of solid waste per year. This volume is expected to increase to 2.2 billion tones by 2025. Waste generation rates will more than double over the next twenty years in lower income countries. Globally solid waste management costs will increase from today annual \$ 205.4 billion to about \$ 375.5 billion in 2025. Cost increase will be most severe in low

income countries (more than 5-fold increase) and lower middle income countries (more than 4-fold increase) than two million informal waste pickers, is now a global business with international markets and extensive supply and transportation networks.

Locally uncollected solid waste contribute to flooding, air pollution and public health impacts such as respiratory ailment, diarrhea, and dengue fever. In cities of lower income countries, solid waste management is usually a city's single largest budgetary item.



Figure 2.1: Informal Dumping Collection Point

Since the colonial era, solid waste management in urban areas has been regarded as public goods or service where by the government has the duty to provide the solid waste management services and the public has to pay for that service. However due

to rapid urban growth, coupled with scarcity of funds many urban authorities facing and the reluctance of the urban dwellers to pay for the services represents a phenomenal challenge while cities and towns are generating an ever increasing volume of waste the effectiveness of their solid waste collection, transportation and disposal of waste systems are declining.



Figure 2.2: Door to Door Local Collection of Solid Waste in Msasani

Urban local authorities' problems are often considered as problems that need long term solutions in which Tanzanian cities and towns cannot explicit afford to manage it.

The reason for not managing this domain is due to the weak financial structure and institutional incapacity of urban local authorities to handle these problems. As a result the government of Tanzania through the local government authorities is now adopting different approach where by a joint cooperation and investment between Public and Private Partnership.

2.2 Problem Statement

During the study of community needs assessment on solid waste management conducted in Msasani ward, it was found that, there was still poor collection and disposal of solid waste generated in community . Though many communities in the mitaa have expressed their concern about waste collection and disposal done by CBOs, this does not necessarily mean all ward communities are aware of solid waste management practices and willing to pay for it.

Despite the fact that CBOs are collecting garbages and solid waste management in the Msasani ward they still face a number of challenges such as lack of management kills, financial support, little cooperation from the community due to few people participating in the meeting conducted by the CBO and the collection of fees as well as little cooperation from the municipal council.

Therefore, analysis of Community Needs Assessment results identified that solid waste collection and disposal in Msasani was not managed properly. The CBO has insufficient capacity in solid waste management, insufficient tools and equipments for collection and transport to the dumping sites. This problem leads to poor service delivery and causes the communities in the ward to dump their solid waste on roadsides, open spaces, drainages and valleys. However, the CNA analysis results show that, community members accept the importance of CBO participation in community as service provider but in the main they were aware on issue of solid waste management problem. The community were not aware of the role and responsibilities of Msasani Mazingira Group to the community in solid waste

collection and disposal. This resulted in weak cooperation with the community in payment of garbage collection fees. To reduce those problems, there is a need to empower Msasani Mazingira Group in capacity building on proper ways of solid waste management, management and financial skills and customer care in service delivery.

2.3 Project Description

The project is known as empowerment of CBOs through capacity building in service delivery in solid waste management in Msasani ward, Kinondoni Municipality, Dar es salaam region. While involving analysis of the effectiveness of the CBO capacity in service delivery in the community, the meeting took place at Msasani primary school premises as a centre. The project started from March 2016 with total number of 20 members from the Msasani Mazingira group.

By February 2016, the project had raised amount of Tshs. 1,800,000 million out of which Tshs.500,000 accumulated from 200 shares of the community members and the Tshs 500,000 accumulated from fines, profits and social funds from the saving and credit group and Tshs 600,000 from ward council and GSM Msasani branch Director and TZS 200,000 from the MCED student. The project was managed by the ward and mitaa leaders with collaboration with the MCED student as a facilitator and the director of the training.

2.3.1 Target Community

This project was aimed at serving the msasani ward community which is in Kinondoni Municipality. Msasani ward is a peninsula to the northeast of the city

centre. The ward has five mitaa which are Mikoroshini, Makangira, Bonde la Mpunga, Masaki and Oysterbay.

The ward has average households size of 3.9 and the population of 48,920; out of which 24,123 are male and 24,797 are female. (URT census 2012). All the residents in the five mitaa and the surrounding areas were served by the project. The owners of the project are the members of the group who are also residents in the ward.

2.3.2 Stakeholders

2.3.2.1 Kinondoni Municipal Council

Is the major stakeholder which has the responsibility of ensuring that the solid waste generated daily is collected and disposed in an appropriate manner at a planned areas of disposal.

2.3.2.2 Msasani Ward Community

It includes all households and the business community which engaged in businesses in Msasani ward. Those will benefit from the project, because it provides services for collection for collection of solid waste for them, otherwise if been left around their houses and business areas hence resulting into a breeding place for disease.

2.3.2.3 Member of the Msasani Mazingira Group

Once the Msasani residents pay their collection as per required, this could assist the group members to earn the income, and assist in the alleviation of poverty to the group members, because the project could be a source of income for them.

2.3.2.4 Dar es salaam City Residents

All residents in Dar es salaam city are interacting with each other. They are all prone to communicable diseases in case there is an outbreak of diseases.

2.3.3 Project Goals

The current situation in msasani ward is that, 69 percent of the garbage that is generated was being collected and disposed while the rest remain uncollected for a long time and hence continues to accumulate in areas, like in sideroads, open space etc.

The desired situation is to have all the dairly generated garbage collected and disposed off in the appropriate designated dump site. In other hand to assist the group members in mobilizing the msasani ward communitrty so as to to make them pay the garbage collection fees on time for all community residents.

2.3.4 Project Objectives

- i. To train 20 members of the Msasani Mazingira group on solid waste management in their community from April 2016
- ii. To improve CBO's capacity in service delivery to the community
- iii. To enhance cooperation among group members and strengthen institution.

2.4 Host Organization

This project was hosted by a CBO known as Msasani Mazingira Group (MMG) which operates in Msasani ward in Kinondoni Municipality.

2.4.1 Background of the CBO (Msasani Mazingira Group)

The Msasani Mazingira Group comprises of 20 members of whom 10 were men. Msasani Mazingira Group is a community group, which is situated in Kinondoni Municipality, at Msasani ward. It was established in 2004, on a self-help basis, with primary objectives of assisting each other through their efforts, time and available resources to deal with solid waste problem. It has registration Number 12171.

The group members comprise 20 members of which 10 were women widow, 7 men and 3 youth. The main objective of the Group was to combat the problem of solid waste collection and disposal in ward and create self-employment through solid waste collection, so as to generate income to improve their living standards.

The women have been historically disadvantaged in access to resources, not only to material resources like property, money and credit, but they have also been excluded from social benefits like education or skills and knowledge in income generating activities. Hence, women advancement in different fields has been constrained by the multiple roles that they play in society.

Due to persisting high levels of income poverty among the widows, families, and others jobless women, most of these poor and uneducated women in Msasani ward are found themselves engaged in solid waste collection, small business like candle making, food vendors and gardening. Women's choice of the activities in which they engage themselves is prohibited and dictated by their reproductive roles, abilities, less access to productive assets like credits and start-up capital.

To combat this situation, the women came up with the idea of establish their group to work on solid waste collection in the ward, so as to self-work together in group and use their scarce resources available and opportunities available in their surrounding settlement.

2.4.2 Vision and Mission of Msasani Mazingira Group

2.4.2.1 Vision

Msasani ward with clean streets free from accumulation of all solid wastes and garbage.

2.4.2.2 Mission

To keep a safe environment and promote environmental sanitation through.

2.4.3 CBO goals and Objectives

2.4.3.1 Goals

The main goal of Msasani mazingira group is to ensure that there is safe environment and sustainable solid waste management in the ward as well as in the municipality.

2.4.3.2 Objectives

The group objectives are as follows:

- a) To conduct sensitization meeting for the community
- b) To conduct sensitization meeting for the ward and mtaa leaders.
- c) To conduct training for the CBO members on solid waste management.

2.4.4 The Structure of the CBO

The Msasani Mazingira Group comprises of 20 members. The management team manages day to day organization activities with the chairperson as a team leader all on voluntary basis. The secretary general coordinates the activities and keep record of all meetings and other informations. The secretary does all managerial activities as the manager of the organizations. The treasurer keeps books of accounts and all financial records and also does the accounting activites of the organization.

Board members as management members participate in decision making that involves the organization. Decision are made at the general meeting that are preceded by secretariate and management meetings.

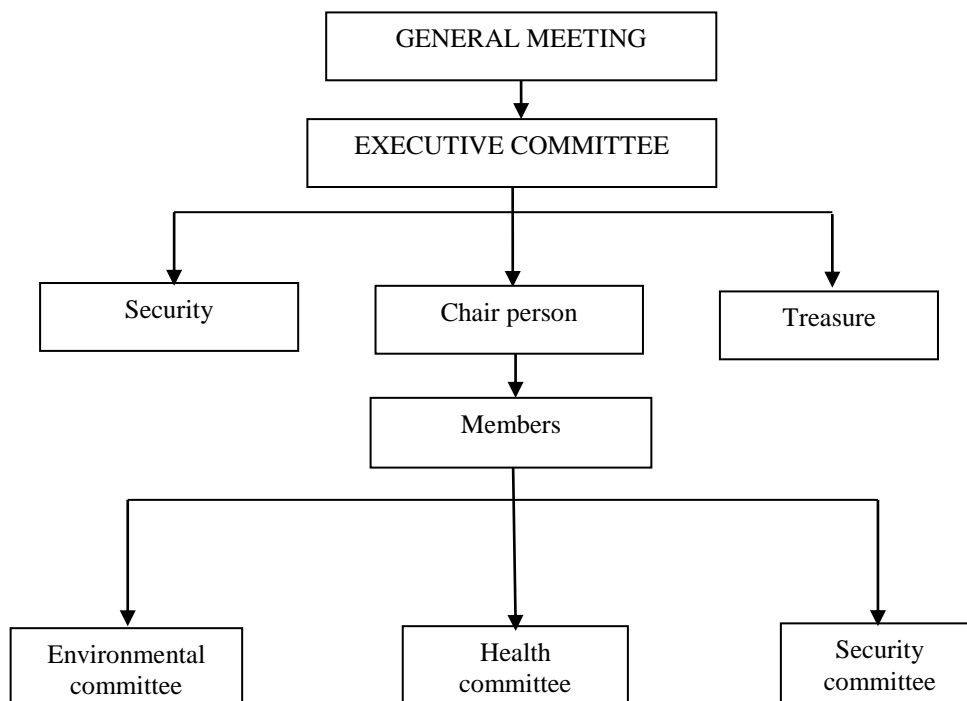


Figure 2.3: CBO Organization Structure

Source: MMG)

2.4.5 SWOT Analysis

Strengths, weaknesses, opportunity, and threat of Msasani Mazingira Group are identified as it shown in the table 2.1

Table 2.1: SWOT Analysis of Msasani Mazingira Group

No	Strength	Weaknesses	Opportunity	Threat
1	Stakeholders willingness to pay for waste collection work	Low participation of household	Government policy on Public Private Partnership	Weak support from the municipal authority
2	Availability of rented truck for solid waste management	Management problems such as lackof accountability	Re-use and recycling of waste material	Operation activies depend only on revenue collected from household
3	Willingness of the stakeholders in payment collections	Financial problems such as cost recovery, low ability to pay	Community awareness on the solid waste management	Lack of space for collection of solid waste
4	They have five full time employees concerning the solid waste management in the community	Social problem influencing operation for instance low status of the collectors	Willingness of the community on solid waste management	Lack of Financial management skills

2.5 The Role of Community Economic Development (CED) Student in the Project

- a) To mobilize and create awareness of solid waste management to the community and the CBO.
- b) To facilitate capacity building of the CBO.
- c) To facilitate training of the CBO in the community
- d) To collaborate with CBO and other leaders in the community to conduct monitoring and evaluation of the project.

2.6 The role of CBO in the project

- a) To facilitate and contribute in the exercise of community mobilizations and awareness on the project.
- b) To perform administrative routine.
- c) To keep record and submit report to the responsible parties.
- d) To attend the capacity building trainings conducted by the CED student.

CHAPTER THREE

3.0 LITERATURE REVIEW

3.1 Introduction

This chapter focuses on reviewing of different literature related to organizations and their role in the community. The chapter reviews the solid waste management in Tanzania and at the study area. The chapter also reviews Tanzania policies and laws related to solid waste management. Finally the chapter provides knowledge gap that the study intends to fill with regards to solid waste management.

3.2 Theoretical Review

3.2.1 Waste Management and Related Concepts

Solid waste management may be defined as the discipline associated with control of generation, storage, collection, transfer, and transport, processing and disposal of solid waste in a manner that is accord with the best principles of public health, economics, engineering, conservation, aesthetic and other environmental consideration and that is also responsive to public attitudes. Solid waste management worldwide is guided by and undertaken according to a specific waste management policy and legal framework of a particular country. The waste management policies and legislation which, besides other things, define the relevant concepts which govern the waste management process in particular country or region.

It is not surprising, therefore, as rightly observed by Kaseva and Mbuligwe (2003) that the definition of the concept of solid waste and impliedly the definitions of other relevant waste management concept differ from country to country.

Taking the Environmental Management Act, 2004 as an example from the existing Tanzania waste management policy and legislation framework, one can be able to explore the meaning of some of the waste management related terms contained and defined in the Act. The following are a few terms and their definitions as found in the Environmental Management Act of 2004.

- a) "Hazardous waste" means any solid, liquid, gaseous or sludge waste which by reason of its chemical reactivity, environmental or human hazardousness industries, its infectiousness, toxic explosiveness and corrosiveness is harmful to human health, life, or environment.
- b) "Industrial waste" means waste emanating from processing industries or non-processing industries that is the source of energy, water, treatment plants or communication and includes any other solid waste..
- c) "Solid waste disposal" means the final stage in solid waste management system;
- d) "Solid waste" means non-liquid materials arising from domestic, street, commercial, industrial and agricultural activities and includes refuse or garbage, non-liquid materials arising from construction and demolition activities, garden trimmings and mining operations, dead animals and abandoned cars scraps.
- e) "Solid waste management" means an essential service that is provided to protect the environment and public health, promote hygiene, recover materials, avoid waste, reduce waste quantities, decrease emission and residuals and prevent the spread of diseases.
- f) "Waste" means any matter whether liquid, solid, gaseous or radioactive, which is discharged, emitted or deposited in the environment in such volume composition

or manner likely to cause an alteration of the environment and include such waste as may be prescribed under this Act.” (Environmental Management Act 2004 No. 20, 2004, Tanzania).

From the above cited waste management-related legislations of the European Union, and Tanzania, similar terms relatively mean differently among the respective legislations,

3.2.2 Organization Theory

Organization is defined by the opportunities afforded by the institutional structure of the society in question (North, 1990). The classical source of organization theory is Max Weber’s analysis of the growth of bureaucracies and their significance for the shift from a traditional to a modern society. To Weber, the ‘rational-legal bureaucracy’ was the new form of social life that generated the fundamental change in the structure of western societies that gave rise to capitalism and industrialization.

The term ‘rational-legal bureaucracy’ was chosen because it pointed to what Weber considered to the fundamental components of the new social structure.

It was based on clearly expressed rules and hierarchy of officials located within the structure on the basis of their skills and expertise in performing particular roles (Morgan 1990:64-65). Organizations are purposive entities designed by their creators to maximize wealth, income, or other objectives.

Organizations are created not simply as a function of institutional constraints but also other constraints (e.g. technology, service, income, and preferences). The interaction of these constraints shapes the potential wealth maximizing opportunities of entrepreneurs (economic, or political or social).

Thus, to organize and empower communities can be done through institutional building by creating organizational structures and procedures, technology promotion, micro enterprises development, resources mobilization for corpus fund and for operation and maintenance, partnerships creation in training and technical transfer, and self-help or self-reliance in infrastructure provision.

In essence, organizations engage in purpose activity and in that role are agents of, and shape the direction of institutional change and economic performance (North, 1990:73)

Although the theory was initially developed to analyze market organizations in capitalist societies, it has often been applied to organizations in non-market sectors. In fact, there are three main types of organizations that include public sector organizations, private sector organizations and voluntary or popular sector organizations.

Public sector organizations are more or less governed by a 'democratic imperative'. Activities are based on the assumptions that they work to promote the public interest. While public sector organizations are conditioned by the state structure and by their

relation to the state, private organizations on the contrast, are often profit-oriented in the sense that their activities are exclusively directed towards profit-making although is not always the case. For example, community based organizations or others may be created to produce services to its community with no intention of producing much profit.

Major question addressed in the study are: How does the CBOs partner with the communities in solid waste management? How does service provider (CBOs), settled the costs of operation when the Communities fail to meet commitments as per their budget planned? Here we aim to know the capacity of CBOs in service provision to the community

As it was been explained by scientists organization is very important in the development of the community that is why the "Msasani Mazingira Group" is well organized and it works to improve the problem of solid waste in the community even though it lacks enough funds to run its activities.

3.2.3 Management Theory

Management theories and theories of social organization largely overlap in the academic field. Management can hardly be discussed in scientific terms today without taking organizational and institutional theory into account (Stenlas, 1999).

Furthermore, organizations and institutions cannot be discussed without a consideration of social network or collective action or other forms of informal organizations (Luckenkoter, 1999).

Management theory can be defined as a subfield of organization theory dealing with the issue of how work is coordinated within organizations (Stenlas, 1999). In particular, management is seen as having the responsibility for the setting up and monitoring of systems of co-ordination and direction. This leads in turn to an apparently basic question: What is the best system of Community Based Organizations?

Management of "Msasani Mazingira Group" is not as good as it seems because it lacks the proper management skills. Even though they manage it, they can improve their service delivery in the community. As a result the management of solid waste collection in the community is not good because the garbage and solid waste in the streets s for too long before the contractor comes to collect it. So if the MMG were good in management they would have made sure that the garbage and solid waste are collected in time in order to protect the environment and reduce outbreak of diseases in the community.

3.2.4 Actor Oriented Theory

This theory has been used in order to explain the actors and their behavior. The theory tries to identify the conflict on the basis of power, goal and information of the actor. The term 'actor' not only identifies the class, gender, ethnicity, age group and status of the people, but also includes active participants who have different powers and various resources.

The new approach allows exploration of how *internal/local and external* actors in a

specific field are locked into a sequence of intertwined fights over resources, meanings, and institutional legitimacy and control. An equally crucial point in the above detailed analysis is the explanation of the diverging reactions to similar structural circumstances even if the conditions appear relatively homogeneous. The arising differential patterns are in part dual creation of the actors themselves.

Actors are placed at the centre because they are the implementers of all forms of external and internal interventions. These interventions enter actors' life worlds, mediated and transformed since actors are not always submissive receivers of various interventions. These are always elements of power, varying strategies and opportunity for maneuvers.

Other important dimensions in actor-oriented approach are the interrelated notions of knowledge, power, agency and structure. Their combination contributes to molding of actors' reactions and strategies (Long, 2001). Agency refers to the capacity of an individual actor to process social experience and a devise ways of coping with life, even under the most extreme forms of coercion.

Within the limits of information, uncertainty and other constraints (physical, normative, political and economic) that exists, social actors possess knowledge and capacity. They attempt to solve problems, learn how to intervene in the flow of social events around them, and to a degree they monitor their own actions, observe how others reacts to their behavior and take note of the various contingent circumstances (Giddens 1984;).

The researcher used an actor-oriented approach largely in order to articulate actors' behavior and understand why they behave in that way; articulating actors' coping strategies, highlighting perceptions, attitudes, actions and meanings attached to these actions.

Concepts of knowledge, power, agency and structure have been used to link how actors responded in solid waste management in partnership with government authorities. Several actors were involved in solid waste management. The actors involved are CBOs, households, WEO, MEO and Municipal council.

Community Based Organizations (CBOs) are formed by community members. Some communities which cannot access enough facilities to maintain their services due to production of large amount of solid waste tend to form Community Based Organizations for their safety. Generally these people mainly undertaken primary collection and street cleaning (Wilson et al., 2006).

Klundert and Lardinois (2001) argue that CBOs are formed when some communities do not receive enough services and so they try to improve their environmental conditions by taking technical and/or financial supports from different agencies. Some CBOs which focus on solid waste management mainly participate in primary collection and street cleaning.

Furthermore, informal sector includes some individuals who work as waste collectors or sweepers or scavengers due to their religious, caste or ethnic grouping (Schubeler,

1996). Low caste or ethnic people cannot find jobs easily and this situation makes them to find some informal jobs.

Due to this, people in the low caste are involved in solid waste management services. Some rural immigrants also engage in solid waste management services to get subsistence income (Klundert and Lardinous 2001). Therefore, Community Based Organizations have a goal to improve their living conditions. Thus they collect waste and transfer it to the disposal site. Sometimes they directly involve themselves in waste management by collecting reusable valuable materials such as bottles and use organic materials directly for their stock (Klundert and Lardinous, 1999).

These CBOs hire the informal or formal waste collectors whenever they need them, to transfer their waste to transfer points, or to separate waste as source. As a result they help to protect the communities in which these CBOs operate and their environment.

These activities support the public and private sectors to collect waste easily. Otherwise some waste can remain in the city. They get payments from the residents for their services (Kassim, 2009).

As said in the theory, the main actors in the Msasani ward are the CBO, mitaa and ward leaders as well as the community members who are the first to see the problem of solid waste and garbage in their area and decided to organize themselves and form the organization which deals with the solid waste management and garbage in the

community. Moreover they get some support from the community and the mtaa and ward leaders for their effort despite their shortcomings.

3.2.5 General Public or Householders

Household members are the main actors in waste generation. They have the responsibility to pay for waste collection service when it is needed. Participation in solid waste management by paying taxes or service fees helps the private or public sectors to mitigate CBO's budget constraints and to improve their services to the people (Kathleen Booth, 2001).

Most of the city dwellers in developing nations do not know who should collect the waste and why they should pay for such services. Kassim & Ali (2005) found out that the householders think that the waste collectors collect such amount of money from householders to run the organization.

The householders think the private sectors need the money to cover collection and transportation charge and to cover the wages. In case where the private or public sectors have not been successful in the collecting solid waste, people tend to have not willing to pay for the services, then it is difficult to run the project.

3.3 Empirical Literature Review

Towns are increasingly facing environmental problems. These problems, among others, are the result of increased levels of human activity. This has resulted into making the basic services that are currently receiving wide attention in the urban

agenda of many developing countries to be the solid waste management (Mbuligwe and Kassenga et al., 2002).

Addressing environmental problems requires support from different institutions working on urban environmental planning and management. Tanzania's adoption of the Environmental Planning and Management Strategy in Dar es Salaam and its replication in 12 other cities around the country have revealed the importance of political will in addressing priority issues: solid waste management, liquid waste management, urban transportation, air quality management, service delivery in unplanned and un served neighborhoods, access to potable water, environmentally sustainable policy, and crime prevention (Mengiseny et al., 2005).

The link between environmental management and institutional coordination is of prime importance. Thus, the priority is to strengthen institutional capacity at local, regional, and national levels for effective urban environmental management (UN-HABITAT, 2009).

Solid waste recycling in Dar es Salaam takes place at the generation, collection, illegal dumping, sites and at the final disposal point. Although currently there is no formal body or organization, which coordinates this activity, a large number of individuals, business organization and industries, has been involved (Kasseva and Mbuligwe et al., 2002).

Average domestic solid waste generation rate is estimated at 0.40 kg/cap/day and total waste generation is within range 2425 tons/day (Salha, et al., 2006).The study

carried out in 2005 by Kiseva and Mbuligwe shows that the households alone generate about 56% of total waste generated in Dar es Salaam.

Since 1994, Dar es Salaam had solid waste collection services provided jointly by public and Private sector (Halla and Majani, 1999). Dar es Salaam city council is contracting out waste collection and disposal services to private solid waste collection and disposal contractors. Similar approaches have also been reported in Calcutta, India and Kumasi, Ghana where private operators are handling more than 40% of the waste.

Private agencies engaged in waste management have higher operating efficiency because, firstly they are free from bureaucratic hurdles and the upkeep of their equipment is excellent. Good condition of vehicles and equipment ensures not only trouble-free operation but also results in higher output and profitability.

Private sector is endowed with qualities such as political independence, economic rationality, efficiency, dynamism and innovation, qualities which make it measure up favorably to public sector enterprise. In Dar es Salaam private sector engagement in waste management came to effect through a by-law adopted in 1993.

The by-law was enacted in order to enable the privatization of solid waste collection in some central areas of the city of Dar es Salaam. Beginning in 1994, solid waste collection services were privatized starting with a five-year contract covering eleven wards of Dar es Salaam (Mengiseny, Kaseva and Mbuligwe, 2005).

There has been a noticeable advance in the service after the entrance of the private sector; on the one hand new opportunities for employment have been created and on the other there has been an improvement in the cleanliness of the city (Kassim and Mansoor, 2006).

Around 1990s, the city was generating 1400 tons of solid waste daily and only 5% of this daily generation was being collected. The recent study stated that solid waste generation per day is estimated at about 2500 tones, and approximately 48% of all waste generated is collected and disposed. About 44 of 73 wards are covered to some extent by collection services. This shows some improvement of the service, Dar es Salaam is now cleaner than before. (Kassim and Mansoor, 2006).

Kinondoni Municipality which is the attention of this study, is historically experiencing serious problem caused by improper waste management and lack of solid waste management infrastructure. Poorly maintained drainage systems, inadequate waste collection and solid waste dumps inhabited by the underprivileged are rife in most of its area. Like other part of the world these problems include accumulation and disposed of waste materials along the streets without proper management which has caused the impacts to both environment and human being as it has lead into environmental pollution, which includes air pollution, water pollution soil pollution and on other side eruption of diseases.

These diseases include cholera, typhoid, malaria and some other water borne dresses which have lead into some events of hospitalization and death (UN-HABITAT,

2010). Due to the above situations municipal government in collaboration with central government, has formulated initiatives to cure the situation by establishing public and private partnership initiative approaches in the 1990s.

The PPP approach has cured the situation to some extent since pollution has been reduced significantly. However, the objective of this study was to empower CBOs capacity through capacity building specifically at Msasani ward in Kinondoni Municipality and to analyze the situation basing on the current trend. In Kinondoni Dar es Salaam, solid waste collection service at household level is divided into two types of door-to-door and transfers point's collection.

In high-income areas, collection is mainly door-to-door since the solid waste collection trucks run around the streets to serve and each truck is run by the collection workers (crews) (Salha and Mansoor, 2006). Household waste originates from domestic activities such as food preparation, sweeping, cleaning, fuel burning, gardening and small-scale business activities carried out by a family within the house. Household waste is dependent on household income levels, Salha and Mansoor, 2006).

For example market waste results from wholesale and retail activities. It comprises food or produce waste, grass and other organic material used for packaging as well as food waste from canteens and food vending within market compounds. Major markets in Dar es Salaam city include Kariakoo, Ilala, Kisutu, Tandale, Temeke, Mwananyamala and Buguruni.

A previous study conducted by Mato and Kasenga in 1990s stated that, hospitals are one of the major producers of solid wastes. Hospitals with better medical facilities were found to have higher waste generation rates of up to 1.3 kg: patient per day. For the case of Aga Khan Hospital, this value was nine times that of Temeke hospital (0.15 kg: patient per day).

It was also found that the designated hospitals generated about 200 Kg/day or 0.2 tons: day with the average waste generation of 0.55 Kg/patient per day or 2.43 Kg: bed per day. The generation rates are comparable to those obtained elsewhere of 1.5–3.9 Kg: bed per day for a survey conducted in the US and Canada hospitals (Mato and Kassenga, 1997).

During the collection process one of the collector walks along the streets alerting the households by using an alarm, to bring their wastes out for collection. The crew members unload the wastes from the bins and containers, put them in the collection trucks and return the containers to the owners.

The collection activities are usually carried out by house servants or women households themselves. The charge incurred for this service is the responsibility of households themselves and not landlords or house owners. The solid wastes are kept in containers before collection, the most common being plastic buckets or used plastic sacks. The buckets used are normally old that cannot be used for any other purpose such as storing water or washing.

These containers are usually small, and not adequate for solid waste storage, so have to be emptied immediately when full. Many households do not cover their waste containers, which are usually kept outside near the house waiting for collection. In most cases these wastes are exposed to rain, sun and winds, which results in littering and the creation of unhygienic conditions as the leachate and odour come out from the waste, which is a risk to public health and causes pollution of the environment. Only a few households in Kinondoni use standard containers, durable with fitted lids, able to prevent outdoor air and leachate flow from the waste, and these are mainly in high-income areas (Salha and Mansoor, 2006).

In most of Africa's urban areas, solid waste management is ultimately the responsibility of Municipal councils. Thousands of tons of solid wastes are generated daily in Africa. Most of it ends up in open dumps and wetland, contaminating surface and ground water and posing major health hazards. Most waste in Africa is not collected by municipal collection system, because of poor management, fiscal irresponsibility, equipment failure and/or inadequate waste management budgets (Kassim and Mansoor, 2006).

For instance, in Abidjan, there are improper waste management in which half of municipal solid waste is collected, the rest is dumped or burned, usually in low-income neighborhoods. There are no special precautions for disposal of hazardous waste (UNEP, 1997).

In Johannesburg, South Africa, there are environmental management problems in solid waste management in which concentration of problems are in informal and

formal settlements, risks from uncollected waste, poor transportation and improper disposal (UNEP, 1997).

Consequently, pollution from poorly solid waste presents of formidable threat to health and productivity, and so poor solid waste management affects people over long period. A crucial thing is that less than one third of the solid waste collected and disposed (UNDP, 1992). (UNCHS, 2001), reports that in many Cities, Municipalities and towns in developing countries, solid waste management (SWM) costs consume between 20% and 50% of municipal revenues. However, the waste collection services levels remain low with only between 50% and 70% of the residents receiving services and most of the disposal being unsafe.

It is a huge problem in Africa, as explained in the EPM (1999) and in the UNEP (1997) that all 32 cities in developing countries face the problem of solid waste management, i.e. improper waste management in residential and industrial areas: inadequate or no waste collection, lack of coordination between municipalities, inadequate financial support, which has resulted in uncontrolled solid waste collection and dumps with vermin, odorous and other health problems.

3.4 Policy Review

A policy is a plan which specifies an organization's general response to the described problems (Green, 2004). Some of policies in place describe the solid waste management as national environmental policy, national human settlement development policy, national health policy, and the sustainable industrial development policy.

3.4.1 National Policies Relevant for Solid Waste Management

3.4.1.1 Solid Waste Management Policy

In Tanzania, the solid waste management policy framework is embodied in a number of sectoral policies which provide guidelines in the sanitation and environmental management. In other words, there is no single comprehensive document on solid waste management policy. The most important national policies containing sections on solid waste management and sanitation are:

3.4.1.2 National Environmental Policy, 1997 Tanzania

National Environmental Policy (NEP) 1997 Tanzania was established in 1997 under the Vice President's Office. The National Environmental Policy gives a broad definition of the term "environment" such that it includes air, land and water plant and animal life including human life.

The social economic recreational cultural and aesthetic condition and factors that influence the lives of human beings and their community, building, structures, machines, or other devices made by man, any solid, liquid, gases, odour, heat, sound, vibration, radiation resulting directly or indirectly from the activities of man and any combinations of the foregoing and the inter relationships between two or more of them" (National Environmental Policy 1997 Tanzania).

This definition of the environment include "solid" as being one among many of the element of environment. In this general way solid waste are also included elements of the environment. National Environmental Policy (NEP) 1997, Tanzania

The National Environmental Policy 1997 of Tanzania identifies and addresses six major environmental problems which need to be urgently addresses land degradation, lack of accessibility, good quality water in urban and rural areas, pollution of the environment, loss of wildlife habitat, and biodiversity deterioration of aquatic system and deforestations.

Among the issues, the NEP 1997 elaborate among others is solid waste pollutions in town as it is affects the health of the people. The NEP also point out that pollution and poor management has threatened the productivity of lake, river, coastal and marine water (National Environmental Policy 1997 Tanzania). As regard municipal waste approximately 10,000 tons of municipal solid wastes are daily being generated all over the country. (National Environmental Action Plan, 2013-2018, Tanzania.)

Tanzania National Environmental Policy (1997) emphasizes the promotion of safe water, environmental infrastructure to protect waste disposal services, the development of urban and rural waste management systems and the review of the laws governing hazardous waste.

The overall objective of the National Environmental Policy (NEP), 1997, Tanzania is to ensure there is security, sustainable and equitable use of resources in order to meet the basic needs of the present and future generations while avoiding environmental degradation, health and safety risks.

The National Environmental Policy NEP 1997 has a number of specific objectives amongst them being the conservation of biological diversity of the ecosystem, raising

people's awareness of the importance of environment and its linkage with development to promote community participation in matters regarding the environment and promote international cooperation in matters concerning environment. (National Environmental Policy (NEP, 1997) Tanzania

In this regard the objectives of National Environmental Policy (NEP), 1997, Tanzania address every general issue; they do not directly point to specific municipal waste issues. However, it is important to note that the National Environmental policy is sectoral cross-cutting in nature; it addresses all sectoral of the social economy which in turn are obliged to include and implement it in their specific policy and plans (National Environmental Policy- NEP 1997).

3.4.1.3 National Health Policy, 2007 Tanzania

The National Health Policy 2007, with regard to environmental health, aims at protecting community health through enhancing sustainable environmental health and there by intends to achieve the following:

- a) Make sure that the community abides to health standards
- b) Improve waste management system together with the disposal of hospital wastes
- c) Undertake on-going health education providers on the significance of environmental health in their places of work.
- d) Review and make laws and procedures for the conservation and protection of the environment (National Environment Action Plan, 2013-2018, Tanzania).

3.4.1.4 The Sustainable Industrial Development Policy, 1996 Tanzania

The Sustainable Industrial Development Policy, 1996 aims at promoting industrial

development which is environmentally friendly and ecologically sustainable while at the same time aims at establishing an incentive system which encourages the conservation of the environment promote the application of the integration of preventive environmental strategy to industrial process, products and services (National Environment Action Plan 2013-2018, 2013, Tanzania).

3.4.1.5 National Human Settlements Development Policy

The Ministry of Lands and Human Settlements Developments (MLHSD) is the custodian of the National Human Settlement Development Policy 2000 (NHSDP). The objectives of NHSDP relevant to sanitation and solid waste management include: to protect the environment of human settlements and of ecosystems from pollution, degradation and destruction in order to attain sustainable development and to encourage development of housing areas that are functional healthily, aesthetically pleasant and environmentally friendly.

The local governments in Tanzania are the main implementers of the national policies. Since the local councils are decentralized in this case, therefore the implementation of the national environmental policy is within the decentralized system.

The Conflict between central government institutions responsible for policy formulation in Tanzania, which are National Environment Management Council (NEMC) and the Division of Environment over the role in the management of environment, affects implementation of the environment policy at the local level. In

this case, environmental activities especially on solid waste management are not well coordinated with either the National Environmental Council or the Division of Environment. As we can note, these policies are very wide, covering many issues, and not easy to operationalize specific interventions. For example the policies do not state how households should participate in solid waste management issues and what areas require their involvement. In this case obviously households may not be aware of the policies.

3.4.2 Legislation Related to Municipal Solid Waste Management in Tanzania

There are two legislations that form the backbone of the legal and institutional framework for sustainable management of the environment in general and for municipal solid waste management these are:

The Environmental Management Act 2004, Act No. 20 of 2004, Tanzania and Local Government (Urban Authorities) Act No. 8 of 1982, Tanzania.

On the basis of the Local government (Urban Authority) Act No 8 of the 1982, Tanzania. All the urban authority in Tanzania are given the mandate to make their own by laws to enable them to execute their responsibility of waste management in their respective area of administrations.

3.4.3 Environmental Management Act 2004, Act No. 20 of 2004, Tanzania

The overall objective of the Environmental Management Act 2004, Act No. 20 of 2004, Tanzania, is to provide for and promote the enhancement, protection, conservation and management of the environment. The Environmental Management

Act 2004, Act No. 20 of 2004, Tanzania, among other things, includes the following provision which is directly relevant to the management of the environment:

- i) The legal framework for the overall management of the environment giving power and responsibilities for various organs and enforcement mandate.
- ii) Establishes the administrative and institutional framework for the management of the environment (Part II Section 11-41).

Part XI of the Environmental Management Act 2004, Act No. 20 of 2004, Tanzania, dwells on waste management. Part (a) deals with solid waste and places the responsibility for solid waste management to local government authorities. The role of the Local Government Authorities is to ensure minimization of the solid waste in their areas of jurisdiction.

The Environmental Management Act No. 20 of 2004, also gives mandate to the Local Government Authorities to involve private sector and Non-Governmental Organizations (NGOs) in solid waste management activities. (Environmental Management Act No. 20 of 2004, Tanzania).Section (b) of Part XI, deals with the management of litter. “Litter” under Section 120 of the Act is defined as “any refuse, rubbish, animals remains, glass, metal, plastics, garbage, debris, dirt, filth, urine, rubble, ballots, stones, earth, sewage or waste matter or any other things of like nature”. In the Environmental Management Act No. 20 of 2004, the handling of litter is entrusted to every individual who has a public place under one’s control

The Environmental Management Act 2004 under part XI gives Local government authorities the responsibilities among other things to undertake solid waste

management. Hence the Local government Urban Authority Act No. 8 of 1982 Tanzania entrusts to urban authorities the responsibility among other things the responsibilities to ensure that their area of jurisdiction and sanitary condition are kept clean. Section 55 of the Act gives the responsibility for managing the waste in urban areas to urban local authorities. (Local Government Urban Authority Act No.8, 1982) Tanzania.

3.4.4 Local Government (Urban Authorities) Act No. 8 of 1982, Tanzania and By-Laws

On the basis of the Local Government (Urban Authorities) Act No. 8 of 1982, Tanzania all the urban authorities in Tanzania are given the mandate to make their own by-laws to enable them execute their responsibility of waste management in their respective areas of administration. The Local Government (Urban authorities) Act No. 8 of 1982 Tanzania.

The Local Government (Urban Authority) Act No. 8 of 1982, Tanzania delegates to the local authorities including Dar es Salaam city council and its three constituent municipalities of Ilala, Kinondoni and Temeke the power to make waste management by laws within their respective areas of administrative control (Local Government (Urban Authority) Act No. 8 of 1982).

The Dar es Salaam City Council (Collection and Disposal of Refuse) By Laws of 1994, were based on section 56 of the Local Government urban Authority Act No 8 of 1982, Tanzania were meant to be applicable and enforced in all the three Dar es

Salaam municipalities of Kinondoni, Ilala, and Temeke. Upon the mandate of these by-laws the Dar es Salaam city council is required to facilitate the collection and disposal of refuse from residential area business premises. It has also to determine the place where the waste has to be deposited.

The bylaws also forbid the deposition and throwing of all types of waste and accumulation of dust of any kind. In case one does not abide by these by laws it is taken as committing an offence and is liable for being prosecuted. If such person is found guilty is fined an amount not exceeding 5000 Shillings or imprisonment for a term not exceeding six month in case one is found guilty (as cited by Lukambizi, 2006), from Dar es salaam City Council (Collection and disposal of refuse) by laws of 1994.

Also the by-laws gives waste management responsibility to other entities other than Kinondoni Municipal commission, these are the Municipal Commission's registered agents or contractors. In case one fail to comply with these bylaws it is taken as a criminal offense and if found guilty is liable for being fined not more than Tshs. 50,000/= or up to twelve 12 months in jail or both. (Lukambuzi, 2006).

Ilala Municipal Council by-laws were made under section 80 of the Local Government (Urban Authority Act 1982) are similar to the by-laws of Kinondoni and Temeke municipalities.

The Temeke Municipal Commission by-laws on solid waste management (collection and disposal of refuse) by-laws, 2002 made under section 80 and 81 of the Local

government (Urban Authorities Act, 1982) categorize waste into three groups “bulk waste”, “Bundle waste”, and “domestic refuse” whereby the three terms are defined as follows:

- "Bulk waste" includes large appliances, machines, furniture, and other solid waste (Including construction or demolition debris or dead animals with weight or volume greater than those allowed for bundle waste or dustbins).
- "Bundle waste" includes tree parts, shrubs, bush trimmings, newspapers, magazines, cartons or solid waste securely tied as a pack not exceeding one meter in length or 1kg in weight.
- "Domestic refuse" means normal household waste produced on any residential building used wholly as a private dwelling.

"Hazardous wastes" means toxic waste, flammable, corrosive, radioactive, explosive or otherwise dangerous in accordance with the Tanzania Environmental Protection Agency, and shall also include motor oil, diesel, fuel, gasoline, (petrol), paint, solvents, dry cell and batteries, pesticides and infectious or medical waste from hospitals and clinics, metallic and /or oily sludge or solvents from commercial and industrial establishments, asbestos materials, pesticides, radioactive wastes, and the like (Temeke Municipal Commission (Solid Waste Management) (Collection and Disposal of Refuse) By- Laws, 2002).

Operational wise the Temeke Municipal Council provides solid waste management services through registered contractors and provides directives on management of the different kinds of refuse to all responsible entities. And also provides for the payment

of waste collection fees by the households or occupiers to the Authority or authorized agents and is responsible for disposal fees for persons and agents who transport waste to dumping sites.

If one does not comply with the requirements of the by-laws and if found guilty can be fined not more than Tshs 50,000/ or be imprisoned for up to twelve (12) months or both. (Temeke Municipal Commission, (Solid Waste Management) Collection and Disposal of Refuse by-laws, 2002).

In regard to institutional arrangements, a major piece of legislation which guided solid waste management in Dar es Salaam was the Dar es Salaam Collection and Disposal of Refuse by-law of 1993 made under sections 56 and 13 of the Local Government (Urban Authorities) Act No.8 of 1982. This by-law was passed to enable the privatization of waste disposal and to introduce Refuse Collection Charges RCC. As explained in section 2.1 of this chapter, before 1990, solid waste management in Dar es Salaam was a free public service provided by the Dar es Salaam City Council. Since 1992, the city's solid waste management system was reformed and contracted out to private sector operators.

A private contractor is given monopoly for delivering solid waste management services after a competitive pre-qualification, and is allowed to collect revenue through the refuse collection charges to cover their operational costs.

The Decentralizations observed in waste management activities whereby every municipality formulated its own waste management by-law. Kinondoni municipality

has formulated a Kinondoni Municipal Council Waste Management and Refuse Collection fees by-laws 2000 (Kinondoni Municipal Commission 2000). In these by-laws the obligations of residents (beneficiaries of SWM services) and the service providers are prescribed as occupiers of premises should maintain receptacles to keep waste, people are prohibited from causing a nuisance and throwing or depositing waste on streets or in open spaces not designated as collection points, beneficiaries are required to provide and maintain to the satisfaction of the Dar es Salaam City Council a receptacle for domestic refuse, of a sufficient size and fitted with good and effective lid, pronounces penalties (fines and/or imprisonment) for defaulters (Kinondoni Municipal Commission 2000, 2001), and define where and how collection charges should be paid by the residents, with the respect of amounts for different generators.

In Msasani ward people who refuse to pay collection fees as it was instructed by the municipal council and been carried out by the CBO as a Private partner in the community are given penalties of paying fines of 50,000 Tshs to the CBO's office.

3.4.5 The Challenges of Solid Waste Management

Most countries in the world, both developing and developed, acknowledge the significance of solid waste management though they may differ in the kinds of concerns they emphasize. In many African countries including Tanzania there is concern for solid waste management due to the harmful effects of improper and inefficient waste management system on people's health, animals, biodiversity and the environment.

In the European Union (EU) the major concern about solid waste management is the extremely large amount of household waste which is generated and discarded by the 500 million people every year. The solid waste amounts to about half a tons per household a year 360 million tons of waste from manufacturing and 900 million tons of waste from construction and 95 millions tons of waste from water and energy supply. Altogether the EU generated 3 million tons of waste every year (European Union, 2010). These figures have definitely increased by the year 2014.

3.4.6 Challenges of Waste Management in Dar es salaam

Solid waste Management has been a big problem in municipal centers in Tanzania including Dar es Salaam (State of the Environment Report-2008 Tanzania).

The challenge of solid waste management began to worsen in the mid-1980s when generally social service delivery started to deteriorate (Jones and Mkoma, 2013).

Several reasons have been given for the continued deterioration of the waste management situation in the Dar es salaam City among them being the extreme rapid growth of the city population resulting from up country immigration, the ever growing high population density and unplanned human settlements (Jones & Mkoma, 2013). The solid waste does have negative effect not only on people but also to marine creatures as well (Mbuya, 2009).

The seriousness of the solid waste management situation in Dar es Salaam has continued to worsen in spite of the government efforts to try to solve it through

administrative reforms. In 1994 government introduced reform by liberalizing the function of waste collection to private campaigns.

The reform initially resulted into positive effect in solid waste collection. Due to these reforms it is estimated that solid waste collection increased from less than 5% in 1992 to 40% in 2000 and together with this about 50% of the entire solid waste of about 2500 tone generated per day was being managed (Palfreman, 2011) as referred to from Dar es Salaam City Council.

The liberalization of the solid waste management went hand in hand with the subdivision of Dar salaam administrative responsibilities for solid waste management into three municipalities of Kinondoni, Ilala, and Dar salaam City Council as the lead partner.

Community Based Organizations (CBOs), Non-Governmental Organization (NGOs) and Community groups were contracted/ engaged in the solid waste management business (Palfreman, 2011). In spite of the initial positive effects of the liberalization, efforts of the Government of Tanzania it has been reported that approximately 3100 tons of solid waste is generated per day but out of this only 39% of it is legally discharged (Palfreman, 2011). This deteriorating situation is partly attributed to the unplanned high rate of population increase in the city which stands at 5.6% in Dar es salaam City (URT. 2012) Population and Housing Census.

There seems to be a correlation between population growth and solid waste disposal in Dar es Salaam. As the population increase also waste generation increases and the

problem of waste collection also becomes more complex (Mbuya 2009, Jones and Mkoma 2013). However, in the meantime the Government of Tanzania has been taking a number of initiatives in terms of formulation of a number of policies and legislation at the central and local levels that are intended to manage the environment in general and solid waste in particular (National Environmental Action Plan (NEAP) 2013-2018, 2013).

3.4.7 Solid Waste Management Practice in Tanzania

In Tanzania sorting is not done at the generation points because of the poor environmental education which people have as well as lack of money to buy various waste bags for the separation of waste collection points usually take every mixture of waste regardless of the types of waste involved.

Though recycling is not well stated in the law it is encouraged to some extent, the Division (Ministry) of Environment supports the recycling system hundred percent under sustainable industrial development policy(as stated by Mrs Kisanga, Principal Chemist in the Division of Environment, Vice President's Office Tanzania, 2013)

In Tanzania, there is no law or policy which states clearly how recycling should be done. In Dar es Salaam City which is the largest and commercial city in Tanzania, recycling of bio waste is done only by Ilala Municipality with the help of a Germany organization called Bremen Overseas Research and Development Association (BORDA). The two municipalities of Kinondoni and Temeke do not undertake recycling (According to verbal communication with Mr. Bernado, Environmental

Engineer at KIKUTA Waste Recycling Station, and Gongolamboto Dar es salaam in November 2013.

Recycling of plastic bottles and cans is done privately by scavengers in the streets and at the Pugu Kinyamwezi dump site. It is estimated that 350-400 scavengers go every day to the dump site and the numbers fluctuate daily (as stated by Mr. Kishere, Pugu Kinyamwezi dump site manager, January 2014).

The scavengers are undertaking the recycling activities voluntarily for their daily bread. Likewise recycling of other goods such as tires, batteries, scrap metal are also done by individuals with private companies in a small scale and large scale. There are lots of challenges in collection points which are inadequate in the city.

3.4.8 Solid Waste Collection System

In most developing countries, solid waste collection includes primary, secondary and direct collection systems. Primary collection refers to individual households placing raw solid waste into their personal refuse bins. Secondary collection refers to the collection of solid waste from refuse bins or other primary sites and its transport to the transfer station dumping site or land fill.

Direct collection is defined to be the collection of raw solid waste from households by the collection vehicles of solid waste management organization and its subsequent transport to the final disposal site (Cointreau, 1983).

Most of the developing countries spend their solid waste management budgets in

collection systems and still cannot collect all solid waste generated. Most of the developed countries have well organized collection systems. Collections bins are provided in facilitate collection of solid waste. Different colored collection bins are placed in curbs for different types of waste materials. These collection bins are also provided for recyclable such as glass, cans, plastic bottles etc. Communities carry waste and put in these containers (Kassim and Ali, 2006).

A primary collection system consists of collection of 21 wastes from household and put such into community collection container. Primary collection equipment are easy to operate and maintain. This primary equipment is tricycles which are driven by human power (Ishengoma, 2000). The primary and secondary collection system is carried out by small mechanical vehicles and trucks. These collection vehicles collect solid waste from community collection centers and wastes from street corners (Cointreau and Sandra, 1994).

Solid waste collection is also done using tractors. In recent years, because of their simplicity and dependability, open top trailers and semi- trailers have found wide acceptance for the transport of wastes.

It was also found that the designated hospitals generates about 200 Kg/day or 0.2 tons: day with the average waste generation of 0.55 Kg/patient per day or 2.43 Kg: bed per day. The generation rates are comparable to those obtained elsewhere of 1.5–3.9 Kg: bed per day for a survey conducted in the US and Canada hospitals (Mato and Kassenga, 1997).

The charge incurred for this service is the responsibility of households themselves and not landlords or house owners. The solid wastes are kept in containers before collection, the most common being plastic buckets or used plastic sacks. The buckets used are normally old that cannot be used for any other purpose such as storing water or washing.

These containers are usually small, and not adequate for solid waste storage, so have to be emptied immediately when full. Many households do not cover their waste containers, which are usually kept outside near the house waiting for collection. In most cases these wastes are exposed to rain, sun and winds, which results in littering and the creation of unhygienic conditions as the leachate and odour come out from the waste, which is a risk to public health and causes pollution of the environment.

In most of Africa's urban areas, solid waste management is ultimately the responsibility of Municipal councils. Thousands of tons of solid wastes are generated daily in Africa. Most of it ends up in open dumps and wetland, contaminating surface and ground water and posing major health hazards. Most waste in Africa is not collected by municipal collection system, because of poor management, fiscal irresponsibility, equipment failure and/or inadequate waste management budgets. (Kassim and Mansoor, 2006).

For instance, in Abidjan, there are improper waste management in which half of Municipal solid waste is collected, the rest is dumped or burned, usually in low-

income neighborhoods. There are no special precautions for disposal of hazardous waste (UNEP, 1997).

In Johannesburg, South Africa, there are environmental management problems in solid waste management; concentrations of problems are in informal and formal settlements, risks from uncollected waste, poor transportation and improper disposal (UNEP, 1997).

Consequently, pollution from poor collection of solid waste presents of formidable threat to health and productivity. Poor solid waste management affects people over long period. A crucial thing is that less than one third of the solid waste collected and disposed (UNDP, 1992). UNCHS (2001), reports that solid waste management (SWM) costs consume between 20% and 50% of municipal revenues.

However, the waste collection services levels remain low with only between 50% and 70% of the residents receiving services and most of the disposal being unsafe inclusive other health problems.

3.4 Summary of Literature Review

The literature review reveal the factors causes and impact of the solid waste management in different places in the world for instance in here in Dar es salaam the solid waste problem caused by human activities such as the used material from the building like the scraper, wood and other which are dumped on the street or along the rivers and roadside. The solid waste also led to the increase of health problems such

as eruption of disease for instance diarrhea, running stomach, and others also led to the environmental problems like land pollution water and air pollution in the community.

CHAPTER FOUR

4.0 PROJECT IMPLEMENTATION

4.1 Introduction

This chapter reports on the project implementation, which began in March, 2016, at Msasani ward, Kinondoni Municipality. The implementation is a follow up of results obtained from the Community Needs Assessment which was carried out in the study area (Msasani ward).

4.2 Project product and Outputs

The intended project product and outputs was to train the members of the group on the proper use of solid waste management as an important aspect for the protection of public health, safety, and environmental quality.

4.2.1 Project Products

The group members produce new products such as sorted plastics, scrappers, and compost manure. They Keep Msasani ward clean by fully participated on garbage collection. Making sure that the community pays for the collection fees.

4.2.2 Project outputs

The expected outputs at the end of this project was to have trained the 20 members of the group to be able to produce new products such as compost manure, heat, electricity and fuel through sorting and processing the recyclable products into raw material and then remanufacturing the recycled raw material. The mitaa leaders are participating fully in ensuring that the community members pay the fees as required.

4.3 Project Planning

The project was implemented by initial introduction meeting to the community and leaders for the introduction of the project. The project involved the group members, Ward extension workers and the community. The whole project was estimated to cost a total of Tshs 1,800,000/= mostly covering allowances for the members during the training as well as allowances for extension workers when conducting sensitization meetings as well as training manuals, food and refreshments.

Different persons were assigned different responsibilities. The project planning concerned the following major steps, identifying project objectives, sequencing activities, identifying responsible persons for carrying out the activities, identifying facilities equipment and service needed, preparing the budget and implementations.

The project implementation was done in three phases and the overall project took 3 months. The first phase of project implementations was done by sensitization of the streets and ward leaders in Msasani ward which was expected to be done in March 2016.

The second phase of the implementation was expected to be done by the mitaa and ward leaders to sensitize the community in their area of operations on the second half of April and the last phase of implementations was expected to start the training for the group members on the proper solid waste management and the alternative use of garbage and getting access to fund as well as the proper management and use of funds This activity was expected to start in May.

4.3.1 Project Implementation Plan

The implementation plan provides a list of activities which required being accomplished the set objective including people responsible time frames and resource required.

- To improve CBO's capacity in service delivery in the community
- To enhance cooperation among group members and strengthen institution.
- To conduct training for the CBO members.

4.3.2 Project Inputs

In order to accomplish the entire intended project objectives the following list of inputs were required to be in place as it is shown in the table below.

Table 4.2: Project Inputs

Input	Details	Quantity	Estimated total cost
Human resources	Trainers allowance	2	60,000
	Contractor allowance	1	1500,000
	Supervisors cost	2	30,000
Sub-total 1			1,590,000
Material resources	Stationaries		50,000
	Transport and refreshments		100,000
	Training costs		250,000
	Training materials/Manual		100,000
Sub-total 2			500,000
Total			2,090,000
GRAND TOTAL (IN TSHS)			

4.3.3 Staffing Pattern

The project has the following leaders who running the project:

- Chairperson is the head of the group and supervises all project activities.
- Secretary is the project secretary and manages overall project routine activities.
- Treasurer is the project treasurer and manages project funds.
- Ward executive officer is the ward organizer in the community level and oversees all community development.
- Ward community development officer is the community organizer at community level and sensitizes the community on the matters concerning development. Other group members are the members of the organization and to help in running day to day activities in the project.

Table 4.3: Shows Staffing Responsibility

No	Type	Position	Responsibility
1	Chairperson	Head of the group	Supervisor to all the project activities
2	Secretary	Project secretary	Manages overall project routine activities
3	Treasurer	Project treasurer	Manages project funds
4	Ward executive officer	Ward organizer at ward level	Oversee all development activities.
5	Ward community development officer	Community organizer at community level	Sensitization of the community on the matter concerning development
6	Other group members	Members of the organization	Helping in running day to day activities in the project

4.3.4 Project Implementation Budget

The project annual budget was Tshs 1,800,000/= out of which Tshs 500,000/= cash was accumulated from 200 shares of the community members and the Tshs 500,000/= accumulated from fines, profits and social funds from the saving and credit group and Tshs 600,000/= from the member of parliament and Tshs 200,000/= from the MCED student.

The project was managed by the ward and mitaa leaders in collaboration with the Godfrey George Mkude (MCED student) as a facilitator and the director of the training.

The project did not include a lot of participants due to the fact that those people involved in the project were the mtaa leaders and ward leaders as well as the group member who played a great part in the project. This made the budget for the project not too complicated because there were no outsiders except for the trainers who were 2 people who did not consume a lot of money during the training session. The project

did not employ any one from the community because it involved the group members who were not paid but were given a small amount of money as allowances which were not sufficient for them.

Table: 4.4: Projects Budgeting

Objectives	Outputs	Activities	Resources Needed	Quantity	Unit Price	Total
Conducting sensitization meeting for the community	100 people in the community were attending the meeting	Teaching the community on the proper management of solid waste	Human resources	110	1000	110,000
			Material resources		250000	250,000
			Plastic chairs	2	150,000	300,000
			Speakers and microphone		150,000	150,000
			Tents	2 carton	12,000	24,000
			Transport		12,000	24,000
Conducting sensitization meeting for the streets and ward leaders	Streets and ward leaders attend the meeting	To make sure the community attends the meeting by announcing every day until the day of the meeting	Drinking water	20 bottle	1000	20,000
			Food and refreshment		15	20000
			Stationaries, note book	Piece 10	1500	15,000
			Ball Pen	Piece 10	1200	12,000
			Photocopy paper	Ream 1	12000	12,000
			Drinking water			
Stationaries Note book Ball-pen Photocopying and printing Transport Facilitators Food and snacks Drinking water	20 members were trained	Effectives supervision on the proper management of solid waste in the community	Stationaries	Piece 20	1200	24,000
			Note book	Piece 20	1000	20,000
			Ball-pen	1 box	24,000	24,000
			Photocopying and printing	Ream 2	12000	24,000
			Transport	500	100	50,000
			Facilitators	2 persons	30,000	60,000
			Food and snacks	2	30,000	60,000
			Drinking water	25	10000	250,000
				2 cartons	12000	24,000
1,729,000						

Source: Study Findings, 2016

4.4 Project Implementation

Twice a week the Msasani Mazingira Group collects domestic refuse from all five mitaa of Makangira, Mikoroshin, Bonde la Mpunga, Oysterbay, and Masaki through door to door method which was recently initiated and for those remote areas they collected from specific locations and transfer it to the municipal dumping site with a contractor's truck. According to the estimate of those responsible approximately 67 of the population in Msasani ward were actively involved in refuse collection and reliably paid the fees charged by the Msasani Mazingira Group.



Figure 4.1 Door To Door Collection/Collection Points

The trucks were financed by the Msasani Mazingira Group through revenue collections from the households. In addition to their small wages the MMG paid them a bonus of Tshs.50, 000/= per month. MMG appointed two people from the organization to organize refuse collection in every mtaa.

4.4.1 Project Implementation Report

The implementation plan of the project began in April 2016 with the identification of the target community. The researcher was aware of the problem of the solid waste

management in Msasani ward and decided to talk with MMG for further understanding. The researcher conducted the CNA in the community and concluded that the MMG needed training directly relevant to their own project that would take their experience into account. Together with the MMG, the researcher was able to get 20 members of MMG to participate in a CNA as well as in the project.



Figure 4.2: Community Participants in Awareness Meeting

4.4.1.1 Training of 20 Group Members on Capacity Building In Service Delivery

The 20 CBO group members from Msasani Mazingira Group have obtain training about capacity building in managing solid waste, environment and health education, business and organizational management, project proposal skills and how to keep and maintain savings and credit.



Figure 4.4: CBO member participants on training in Msasani ward

4.4.2 Project Implementation Status

The Msasani Mazingira Group were trained on the proper management and use of solid waste in their area of operation and as a result they were able to produce some products like compost manure, heat, electricity, and fuel from the recycling of used and unused solid waste materials in their community. They were able to mobilize community business men to volunteer to build modern collection points in mitaa as shown in Figure 4.5.



Figure 4.5: Newly Built Dumping Collection Point

The training was facilitated by the Ward Community Development Officer for Msasani ward with the assistance of the CED adviser. Even though the financial situation was not sufficient to help effectively the training, the group's members well understood the impact of solid waste management in their areas and also understood how to keep their environment clean all the times. As a result, the mitaa and ward leaders put this agenda of solid waste management in their Monthly meeting.

Table 4.5: Project Implementation Gantt Client Chart

Objectives	Outputs	Activities	Project Implementation Month													
			1	2	3	4	5	6	7	8	9	10	11	12		
Conducting sensitization meeting for the community on the proper management of solid waste	100 people in the community participating in the meeting	Sensitize the community on the proper management of solid waste														
Conducting sensitization meeting for the streets and ward leaders	10 leaders were participating in the meeting	To facilitate one sensitization meeting in ward.														
To conduct training for the CBO on the proper management of solid waste	20 members attended the training.	To conduct introductory courses for group leaders on their roles and responsibility														
To collect the garbage and solid waste in the street	Proper collection, storage and transportation	Community put the garbage and solid waste at the collection point.														
To mobilize and sensitize community in paying collection fees	Increased collection charge fees records	To follow up in door to door collection charges fees. To fines those who refuse to pay for														
To make sure collection tools and equipment's are available	Availability of tools and equipment's in practices	To hire or purchase equipment's and tools. To repair existing equipment's														

Source: Study Findings 2016

Conclusion

This chapter has shown the detail of the project implementation, including plan of implementing the activities, project outputs, project planning, inputs, budgets and staffing pattern, for the sustainability of the project.

CHAPTER FIVE

5.0 PARTICIPATORY MONITORING, EVALUATION AND SUSTAINABILITY

5.1 Introduction

This Chapter focuses on planning on how to gather information needed to keep the project on schedule as it was planned so as to be able to anticipate problems and design solutions for them measuring progress and being able to evaluate project success.

The chapter also focuses on the need to review project to ensure its capacity to function regardless of changes in internal and external training support staffing and sustainability of the project.

5.2 Participatory Monitoring

Participatory monitoring is the systematic collection, recording, and analysis of information that have been chosen and recorded by insiders with the help of outsiders. The main purpose of the participatory monitoring is to provide information during the life of the project so that adjustment and or modification can be made if necessary.

It is aimed at improving the efficiency and effectiveness of the project organization. It is based on targets and activities planned during the planning phases of the work. It helps to keep the work on track and can let management know when things are going wrong.

Participatory monitoring is not only keeping record but also it stops at set times to analyze (add up discuss, integrate) information. The time to stop and analyze will vary according to the nature and or seasonality of activities.

It involves paying attention to certain things and responding in case those things change in unexpected manner. It should also be able to assess as to why the changes took place in that way and work out on the most appropriate responses to the matter.

5.3 Monitoring Information Systems

Monitoring information system is a system designed to collect and report information on a project and project activities to enable a manager to plan, monitor and evaluate the operations and performance of the project (CEDPA, 1994). The monitoring information systems of this project were arranged in such a way the information collected from the site where activities were taking place. The CBO group leader together with the researcher were responsible for data collection at the place where the training activities were conducted.

Table 5.1: Monitoring Information System

Category of information	What to monitor	What record to keep	Who collect data	Who used data	How to use the information
Work plan activities	Schedule of activities	Monthly Quarterly	MMG, and CED student	MMG members and CED student	Reschedule activities and employment of resource
Cost of expenditure of the group	Unavailability of resource budget	Monthly	Group treasurer	Group members CED student	Ensure resource are available
Staff and supervision	Knowledge attitude	Performance	Group administrative CED student	Group Administration	Development partners CED student
Equipment and tools	The stock of tools and equipment	Stock taking of available tools and equipment	MMG administration	Group members Stake holders	Ensuring the necessary tools and equipment are available
Result	The achievements and challenges	Report from various project Observation on the trend of the project	CED student MMG staffs	Group members	Creation of other activities Planning for improvements.

Source Study Findings, 2016

5.3.1 Participatory Monitoring Methods

The main objective of the research during the monitoring process was to collect data that was used to assess the progress of the project and take some appropriate measures if necessary. So in order to have timely and relevant information that can be used to assess the desired changes taking place, there was a need to use appropriate methods for information gathering.

The research methods which were used during the process was data collection whereby the data was collected using the attendance register that was kept during the meetings and during the training. Other methods used were observation and Focus Group Discussions. The monitoring team was appointed by the community meeting which was convened earlier to decide who would be monitoring the implemented activities.

5.3.1.1 Interview

The method was used to collect data at individual level especially from mitaa leaders and the CBOs leaders who benefited from the training. The method was good as the data collector was able to get the feedback and ideas of the respondents directly.

However monitoring checklist was used during the interview where respondents were asked to respond to some questions which were prepared specifically in order to get their general understanding on the progress of the project such as what actually the respondent knew about the project and what they knew about the progress of the project. It was also the time to gather some important opinions and recommendations possible for improving the project.

5.3.1.2 Focus Group Discussion

Focus Group Discussions were done using a checklist prepared by the researcher before the interview. The discussions were conducted by the members of the group together with mitaa leaders aimed at understanding the progress of the planned activities and goals of the project.

5.3.1.3 Observation

Observation method was used to check physically the current situation of the project. It was also easy for the data collector to visit some street premises where garbage collection was taking place to check what was going on as the exercise was done in a participatory way. The method was used as a lesson to leaders, as members were able to see, discuss, and recommend actions to be taken where necessary and it was easy for members to reach consensus as everybody was aware of what is going on.

Observation method was used for the purpose of getting direct information about behavior of individual and groups and it enable them to understand the strengths and weaknesses of the training offered.

5.3.1.4 Review of the attendance registers

This was used to determine the level of participation of members and the leaders in the planned activities but also to see the level of commitment of the members and the community and hence sustainability of the project and the process.

Table: 5.2: Summary of Participatory Monitoring Plan

Specific Objectives	Activity	Monitoring Question	Indicator	When
Sensitization meetings conducted to Msasani community	To conduct sensitization meetings	Who attend the meetings Was the main theme addressed	No. of people attended No of sensitization meetings convened	March 2016
Meeting conducted to the streets and ward leaders	Conduct one sensitization meeting to the streets and ward leaders	Who attend the meetings Was the main theme addressed	No of people attended No of sensitization meetings convened	March 2016
Training conducted to the Members of the Msasani Mazingira Group	To train 20 members group on the proper management and use of solid waste and getting access to fund as well as management skills	Who attend the meetings Was the main theme addressed	No of people attend No of sensitization meetings convened	April 2016

Source: Study

5.3.2 Monitoring Results

During the implementation of the project monitoring, a visit was undertaken involving members of the group who fully participated in the monitoring exercise and results and reports were produced and kept in well prepared files by the chairperson and it included the minutes of the meetings. Monitoring result shows that most of the planned activities were implemented, for instance, training provided for group members. Monitoring revealed that these activities started late due to lack of funds.

5.4 Participatory Evaluation

Evaluation is a systematic process of collecting and analyzing information to assess the effectiveness of the project or programs in achieving its goals. The evaluation facilitated regular feedback that helped project implementers to analyze the consequences, and results for action. It also helped to assess the relevance, scope, and sustainability of the project.

5.5 Performance Indicators

The performance indicators which were applied in the project were:

- i) Community participation in solid waste management in the streets at Msasani ward, with clean environment
- ii) Equipment and other facilities for the collection of solid waste management to be available at working places, like trucks, wheel billows and gumboots.
- iii) Improved management of collection and disposal of solid waste in ward streets by Msasani Mazingira Group.
- iv) Behavior changes of ward residents with respect to pay collection charge fees
- v) MMG undertaking supervision
- vi) Continuing and growing services

5.5.1 Participatory Evaluation Methods

5.5.1.1 Focus Group Discussion

Focus group discussion was done using the checklist prepared by the researcher before the interview. The discussion conducted with members and leaders aimed at understanding the progress of the activities aimed at achieving the project goal.

The general meeting of the group members and key stake holders appointed the evaluation team. The composition of the evaluation team included group members and outsiders. The members were not being paid because it was part of their duty. The result of the evaluation team was presented to a meeting within a week after evaluation to allow timely decision.

5.5.1.2 Observation

The observation method was used to check physically the current situation of the project implementation outcome.

The Observation method was used for the purpose of getting direct information about the behavior of individual and groups. It also enable to them to understand the strengths and weaknesses of the training offered.

5.6 Project evaluation summary

The project evaluation summary was reviewed the outcomes and potential impact of the project in terms of its objectives, and determine to what extent the project goal achievement. The format included a participatory evaluation to all stakeholders, CBOs, members and the community.

Table: 5.3: Project Evaluation Summary

Objectives	Evaluated activities	Achievement indicators	Means of verifications
To collect garbage and solid waste in the streets	Management terms and on the proper collection of garbage and solid waste in the streets	Report document and signed agreement of contractor in work	Documents, Evaluation report
Follow up and mobilize community in paying for the collection fees	Meeting conducted by the CED student and CBO in mobilizing the community	Community collection fees receipt	Observation, checking of documents report for the collection of fees
To improve and make sure the collection tools and equipment are there at the time of collecting the solid waste	Preparing and keeping the tools and equipment at the right place in order to be seen by the group	Collection service being offered at the streets MMG management supervise and monitoring	Evaluation report Office records.

Source: Study Finding 2016

5.7 Project Sustainability

This refers to how a project ensures its capacity to function properly regardless of the changes in internal or external factors such as training support. Brown et al (1987) argue that Sustainability is increasingly viewed as a desired goal of development and environmental management. This term has been used in numerous disciplines and in a variety of contexts ranging from the concept of maximum sustainable yield in forestry and fisheries management to the vision of a sustainable society with a steady state economy. The meaning of the term is strongly dependent on the context in which it is applied and on whether its use is based on a social economic or ecological perspective.

Sustainability may be defined broadly or narrowly but a useful definition must specify explicitly the context as well as the temporal and spatial scales being considered. Although society differs in their conceptualizations of sustainability, indefinite human survival on a global scale requires certain basic support systems which can be maintained only with a healthy environment and stable human population.

To ensure sustainability of same the project, activities have been designed focusing much on the capacity building of CBOs members and the community members. CBOs member are assumed to facilitate learning process in the project and providing substantial support during the transition period of the project until it is able to stand on its own. The project have been linked to the local authorities from ward level to

district level and hence recognized it and we believe the project will also get support from these authorities.

5.7.1 Financial Sustainability

Financial sustainability is the ability of a project to mobilize and efficiently use internal and supplementary external resources on reliable basis to achieve current and future target of performance. Now they are able to run the waste collection activities on their places very well as well as sustaining their needs without facing any problems like before now they are able to stand by themselves as a group.

5.7.2 Organization Sustainability

The Msasani Mazingira Group together with the community and the ward leaders are committed to the project and currently none is quitting the group. They are working together as a team to reduce the solid waste management problem in their community. This makes them more efficient in their work and they were able to train and become the facilitators to teach other groups in their community.

5.7.3 Political Sustainability

Solid waste management is the issue discussed nationally every day. For instance the President of the country addressed the whole nation to keep our environment clean and to make this possible, it need the participation and cooperation's of both the community together with the CBO like the MMG as well as the local government leaders to make sure that this is done. As a result, every Saturday of the end of each month the people are supposed to make the environment clean and those who do not participate in this work are supposed to pay fine of Tshs.50,000/=.

Also there is government policy and legislation for the environmental management - for instance, National Environmental Management of 1997 (NEP), National Health Policy of 2007 (NHP) and Sustainable Industrial Development Policy of 1996 (SIDP), Environmental Management Act of 2004 and Act No 20, Local Government (Urban Authority) Act No 8 of 1982.

5.8 Sustainability Development Plan

The sustainability plan for the project was based on the fact that the Msasani Mazingira Group is a progressive entity aiming at improving their member's skills. That is, it will invest in the project for the purpose of improving service delivery to the community.

5.8.1 Sustainability Indicators

- a) Monthly meeting to the group members as well as to the community by local leaders.
- b) Fees payment collection from households monthly increasingly.
- c) Their living standard improved with better health condition and clean environment

5.9 Conclusion

Monitoring and evaluation was done to track the progress of the project. The exercise involved some of the community members and the group members. Methodology was participatory and it included Focus Group Discussions, interviews, and questionnaires. SPSS was used to analyze data collected from the field by the

researcher. The resources which were used in the implementation of the project were the human resource from the Msasani Mazingira Group and the other resources were from the Municipal council. One of the challenges faced the MMG were budgetary constraint as most of the funds depended on members' contributions and the CED student. Moreover, the monitoring activities showed the willingness of the community in the project as well as the group members.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter provides the conclusive remark of the whole study basing more on the CAN and project monitoring and evaluation. Recommendations for further advancement of similar project is also provided.

6.2 Conclusion

Participatory assessment was done in the community and the findings revealed that the solid waste management in Msasani ward is a serious problem which needs an urgently solutions. As result, the Msasani Mazingira Group (MMG) was formed in order to help the community to resolve this problem, which led to outbreak of diseases in the community. The MMG came into being after the government adopted the Public Private Partnership approach in order to give chance to CBOs and NGOs to help resolve the problem in the country. As a result they worked together with the government and the community, in ensure such problems in the community are well solved.

The objective of the project was to empower the MMG in capacity building as well as to empower themselves by providing them with sustainable support in environmental education by strengthening their activities, their financial management skills, and in repairing and buying new trucks for the collection of solid waste for the community. The commitments from the group members, community as well as the local government leaders helped to make the project successful.

According to State of environment report (2008), solid waste management has been a major problem in Dar es salaam due to rapid growth of city population resulting from immigration.

In Tanzania, sorting of waste is not done at the generation points because the people have poor environmental education and have little money to buy various waste bags for the separation of waste. Collection points usually take all mixtures of waste regardless of the types of waste involved.

As a result, Msasani ward community complained about the solid waste in their area due to the fact that their mitaa and ward leaders do not help them effectively. Due to this problem, the CBOs were playing a great role in the community even though they do not have enough capacity to help them fixed that problem in their community.

The Msasani Mazingira Group have faced many challenges in their area of operation for instance, lack of funds to hire or buy trucks for the collection of solid waste in the streets. At present they have 2 hired trucks which are used to collect the garbage alongside the mitaa.

These trucks are not enough due to the fact that the garbage they collect are too much and they cannot be able to finish all of them at once. That is why they take too long sometimes to go and collect the garbage at the streets. Not only that but also they get no support from the municipal council in their work hence make it so difficult for the CBO in this community to achieve their goals because they depends on collection fees as running cost capital.

The implementation of this project was done in a participatory way as stated previously. The outcome of this project shows that the CBO members were able to learn alternative ways of making extra money by joining SACCOS. Monitoring and evaluation was also done in a participatory way by involving the MMG members and the community members together with the local government leaders. The project was successfully finished and all the objectives were achieved.

6.3 Recommendations

Msasani Mazingira Group should formulate long term and comprehensive solid waste management plan that would encourage and motivate the community to give their support. Both the municipal and the CBO must improve their methods of solid waste transportation by allocating or buying more vehicles for transportation of solid waste. This will ensure more waste collection and transportation of the waste generated.

Massive information dissemination campaign on solid waste management should be conducted to promote public awareness and change the culture of throwing the waste every place. More vigorous awareness campaigns with a view to changing the peoples' mindsets from the cultural practices of majority of city residents disposed solid waste in open dumping, burning, burying, etc. to appropriate solid waste management practices of disposed in places by using waste bins and pay revenue collection charges.

Other option to be considered is the application of funds to support some activities like meetings, training, and research fellowship. In this age of globalization, many

countries including Tanzania, are facing the challenge of solid waste management in different locations but most especially in urban areas where the populations are increased and the human activities are also increased which led to the mass accumulation of solid waste in the street and along the river side and other places in the country.

Community Needs Assessment, already implemented in Msasani ward in Dar es Salaam could be used as a model by other development stakeholders to make intervention in the communities of various people for the development. There is pressing need to have an agenda of motivating the people in the solid waste management in the community to reduce the accumulation of solid waste and make the environment clean every day without being forced by any one rather it should be a voluntary activity in the community.

Cooperation in providing education on the environment in the community is very important and this cooperation need to involve community, group members, local government leaders as well as the municipal leaders because education should start at home meaning in our family on how to keep our environment clean from home to the community, this will help a lot due to the fact that once people are educated on how to keep their environment clean at home is going to be easy for them to keep environment clean elsewhere and this need a lot of effort from the community and everyone involved.

The local government Act of 1982 reveals that, to date, there is no policy for solid waste management at the national level; rather there are scattered pieces of

legislation on solid waste management in different policies and city or municipal bylaws which are, for the matter, not supported by a principal law or policy on solid waste management. Owing to the state of affairs, the city and municipal authorities in the country handles solid waste management issues according to by laws they set for themselves. Therefore, recommendation is, the Government should formulate a solid waste management policy accompanied by the enabling legislation, to regulate the conduct and operations in solid waste management

6.4 Suggestions for Further Research

The study indicates areas for further research. These include:

- The problem of maintaining the environment in the community
- Community responsibility /participation on solid waste management
- Implementation of policy and legislation Act on solid waste management.
- Effective cooperation of the municipal council to the CBOs operates in the community should be strengthen

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APPENDICES

APPENDIX 1: Questionnaire for Households

- Name of respondent.....
 - Age of respondent
 - Sex.....Female/Male
 - Marital status
 - a) Single () b) Married () c) Widowed ()
1. What do you understand the meaning of solid waste?
Explain.....
2. Do you produce/generate solid waste?
a) Yes () b) No ()
3. Mention some materials dropped as solid waste on your area;
a) Iron materials/Scrappers () b) Food remains ()
c) Hard papers, plastics and boxes () d) Unused home utilities ()
4. Where do you dispose/dump your solid waste after generate?
a) At the pit () b) collected and burn () c) On the road/street and river ()
d) Put on collection point () e) Put outside and waits for collectors by CBO ()
5. What is your income per Month?
a) Between 10,000/= - 30,000/= ()
b) Between 31,000/= - 50,000/= ()
c) Between 51,000/= - 70,000/= ()
d) 71,000/= and above ()
6. Who do you think is responsible for collecting solid waste?
a) Municipal Council () b) Individual ()

- c) Private sector ()
- d) I don't know ()

7. Have you ever attended any meeting of awareness on the problem of solid waste in your area?

- a) Yes ()
- b) No ()

8. Where did you attend that meeting(s)?

- a) Conferences ()
- b) Interview ()
- c) Announcements ()
- d) Public/Political Meetings ()
- e) Local government meetings ()
- e) Never ()

9. How many times in a year did you attend?

- a) Once ()
- b) Twice ()
- c) Thrice ()
- d) None ()

10. Who was conduct the meeting(s)

- a) NGO/CBO ()
- b) Mtaa/Ward leaders ()
- c) Others ()

11. Are there any private sector (CBO, NGO or Agent) provides service in solid waste management in this area?

- a) Yes ()
- b) No ()

If yes how many?

12. Do you pay for the services?

- a) Yes ()
- b) No ()

If yes, How Much,Per day orPer Month

If no, why.....

13. Show the schedule of solid waste collection on your street

- a) Everyday ()
- b) Per week ()
- c) Per Month ()
- d) Never ()

14. How would you rate their services?

APPENDIX 2: Interview guide for Community Based Organization

1. How do your services provided?
 - a) Free of charge ()
 - b) Charge a collection fees ()
2. How do you charge collection fees to the community?
 - a) Per day () Tshs.....
 - b) Per week () Tshs.....
 - c) Per Month () Tshs.....
3. How would you consider your relationship with the Council?
4. In your works, do you employ labors from the community of that area?
 - a) Yes () b) No ()
5. How do you collect and transport the garbage from the households?
6. Where do you dispose of the collected garbage?
7. Who collect the waste fees?
8. Who is in charge of awareness- rising in this ward and how often is it done?
9. 15. How do you get funds for solid waste management operations?
 - a) Loans from bank institutions
 - b) Contribution from group members
 - c) Depends on fees collection from households
 - d) Contribution from Municipal Authority
10. Do you conduct meetings with communities in mitaa to talk about solid waste management's issues?
11. How would you rate the participation of the communities in solid waste management?

- a) Very good ()
- b) Good ()
- c) Satisfactory ()
- d) Poor ()

APPENDEX 3: A Training Package for Msasani CBO

Introduction

This guide helps to provide information /education on enhancing CBO member's in empowerment of CBO capacity to delivery sufficient service of solid waste management to the community.

The guide is mainly targeted to leaders/ CBO groups as well as individuals and organizations dealing with solid waste management and environmental protection and in short for all those people who are partly or fully involved environmental protection.

The importance of training

Training has a direct impact on the success of community members if tailored to meet their needs. So skills training programmes should address the needs of the group members to manage solid waste, improve the working environment, but there should also be training programmes for the leaders on how to manage the groups.

TRAINING PROCESS

Curriculum Development

The course of study contains the following topics/subjects

- Environment and Health Education
- Business and Organizational Management
- Project Proposal
- Savings and Credit Scheme

Module I

Environment and Health Education

Goals:

- i. To enable participants to understand the benefit of working in a safe environment.
- ii. To enable participants to understand various ill effects caused by poor working conditions and how to combat them.
- iii. To enable participants to be aware of from hurt, injury, death, accident caused by occupation or environment in which she/he is working.

Module III

Business and Organizational Management

Goal:

- i. To enable participants to understand the importance of organizational and how organizational can help community members to address their socio-economic, needs and defend their rights
- ii. To enable participants to understand the nature of members organization
- iii. To enable participants to understand why should members form an organization and what are roles and obligations

Module IV

Project Proposal

Goals:

- i. To enable participants to understand how to develop a project proposal for grants funds.
- ii. To enable participants to conduct a feasibility study

Module VI

Savings and Credit Scheme

Goals:

- i. To enables participants understand the importance of credit for development of micro-enterprise
- ii. To enable participants understand how to carry out analysis of credit demand for their members
- iii. To enable participants understand different options for selecting a savings and credit scheme
- iv. To enable participants understands steps on how to lunch a savings credit scheme

Environmental Heath Office

B. Mlonda

Kinondoni Municipality

APPENDIX 4: List of CBO Members Training Participants

S/NO	NAME	AGE	SEX	MARITAL STATUS	EDUCATION LEVEL	POSITION
1	Grace George	54	Female	Marriage	Primary School	Member
2	Ally Salum	47	Male	Marriage	Primary School	Member
3	Saada Said	35	Female	Marriage	Primary School	Member
4	Issa Ally	37	Male	Widow	Primary School	Member
5	Felista Mtuzi	30	Female	Widow woman	Primary School	Member
6	Mwaja Karim	48	Female	Marriage	Adult Education	Member
7	Asha Mohamed	45	Female	Marriage	Adult Education	Member
8	Pili Salehe	50	Female	Marriage	Adult Education	Member
9	Fatuma Ally	35	Female	Un marriage	Primary School	Member
10	Rose B. Mkude	18	Female		Primary School	Member
11	Maneno Abdallah	70	Male	Marriage	Adult Education	Member
12	Khamis Juma	44	Male	Marriage	Primary School	Member
13	John Mambo	26	Male	Marriage	Primary School	Member
14	Salome Shagali	36	Female	Marriage	Secondary School	Member
15	Sabina Bernard	28	Female	Marriage	Primary School	Member
16	Muha Mohamed	31	Male	Marriage	Primary School	Member
17	Abraha Ally	55	Male	Marriage	Primary School	Vice Chairperson
18	Benedict Ben	63	Male	Marriage	College	Chairperson
19	Cecilia Boniface	28	Female	Marriage	Secondary School	Secretary
20	Maua Abdallah	41	Female	Marriage	Primary School	Chairperson of committee

Source: Study Training

APPENDEX 5

Godfrey G. Mkude

Wizara ya Ardhi

S.L.P 3159

DAR ES SALAAM

15/02/2016

Mwenyekiti

Msasani Mazingira Group

S.L.P 3014

Kinondoni-Dar es salaam

YAH: MAOMBI YA KUFANYA KAZI KATIKA KIKUNDI CHA MSASANI MAZINGIRA GROUP

Tafadhali, rejea mada hapo juu.


Mimi ni mwanafunzi ninayesoma Shahada ya Uzamili katika "Community Economic Development" inayotolewa na Chuo Kikuu Huria Cha Tanzania tawi la Dar es salaam.

Moja ya matakwa ya shahada iyo ni kufanya kazi ya kijamii na kikundi chochote chenye mtazamo wa kusaidi kuondoa tatizo katika jamii.

Kwa utashi wangu mwenyewe, nimependelea kufanya kazi na kikundi hiki ili tuweze kusaidiana katika kukijengea uwezo katika utendaji kazi wake ikiwa ni katika kuinufaisha jamii tunayoiudumia.

Kwa barua hii, ninatumaini kupatiwa ridhaa ya kujumuika nanyi.

Natanguliza shukrani za dharti.


Godfrey George

Afisa Mipango

APPENDIX 6

MSASANI MAZINGIRA GROUP

S.L.P 3014

KINONDONI

20/02/2016

GODFREY GEORGE

WIZARA ARDHI

DAR ES SALAAM

YAH: KUKUBALI MAOMBI YA KUFANYA KAZI NA KIKUNDI CHA MSASANI MAZINGIRA GROUP

Kichwa cha habari hapo juu chahusika.

Wanakikundi wa Msasani tumekubali maombi yako ya kuja kujumuika nasi kufanya kazi na wewe.

Tumepokea maombi yako kwa furaha kubwa sana ili tuweze kusaidia kukijengea uwezo, pamoja na kuinufaisha jamii inayotuzunguka na tunayoihudumia katika kutatua kero ya uzoaji na usafirishaji wa taka ngumu katika kata yetu ya Msasani.

Kwa barua hii, tunafuraha kukujibu rasmi kuwa, tumekubali kujumuika na wewe katika kikundi chetu.

Natanguliza shukrani za dhati



Katibu wa kikundi

Mariam Hassani