PROJECT TITLE: ASSESSMENT OF COMMUNITY PARTICIPATION IN ENVIRONMENTAL SERVICES DELIVERY: A CASE STUDY OF SOLID WASTE MANAGEMENT IN HANANASIF WARD, KINONDONI MUNICIPALITY, DAR ES SALAAM.

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT FOR THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN COMMUNITY ECONOMIC DEVELOPMENT IN THE SOUTHERN NEW HAMPSHIRE UNIVERSITY AT THE OPEN UNIVERSITY OF TANZANIA.

January 2005.
SUPERVISORS CERTIFICATION.

I, Mr. James Kisoza, I certify that I have thoroughly read this project report and found it to be in an acceptable form for submission.

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Date: 2, May 2005
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DECLARATION

I, Angela Phillipo Mwaikamb o do hereby declare to the SENATE of the Open University of Tanzania that this Project Paper is the result of my original work, and that it has not been submitted for the similar degree award in any other University.

Signature

Date
DEDICATION

This work is dedicated to my mum Emily Mpangala (74), who, throughout my master's program encouraged, supported and understood the importance of my pursuing and completing this program and therefore allowing less time to look after and caring for her ailing health condition. To you mum, with all my love!

Your Daughter.
ABSTRACT

The research study was conducted in Hanansif area in Kinondoni municipality, in order to assess the level and limitation of community participation in solid waste management services. The results of the study was envisaged to assist KIWODET, a CBO providing solid waste collection services in the area, to formulate a workable strategy that could improve and facilitate sustainable provision of solid waste management services. A cross section survey design was adopted, a structured questionnaire was used for data collection. The sample size was 5 percent of the target population of head of households residing in Hanansif area. The respondents were selected at random. The study results indicated that community members were less aware of the existence and activities of the CBO in the area. However they acknowledged that, lack of knowledge and education on health consequences of poor environmental management, as well as poor enforcement of by-laws governing solid waste management in the area have largely contributed to low community participation. It was therefore recommended that, KIWODET should develop a community sensitization and awareness programme to address the issues and facilitate increased community participation in environmental management. In implementation of the recommendations, a project proposal for community sensitization and awareness programme was finally developed to assist KIWODET mobilise funds to implement the programme.
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ABBREVIATIONS

1. CBO Community Based Organization
2. CED Community Economic Development
3. ILO International Labor Organization
4. NMB National Microfinance Bank
5. KIWODET Kisutu Women Development Trust Fund
6. PPP Public Private Partnership
7. SWOT Strength, Weaknesses Opportunities and Threats
8. SWM Solid Waste Management
9. URT United Republic of Tanzania
CHAPTER 1

1.0 GENERAL INTRODUCTION

Kisutu Women Development Trust (KIWODET) is a Community Based Organization located in Hananasif ward of Kinondoni municipality of Dar es Salaam City. KIWODET is responsible for providing solid waste collection services to residents of Hananasif Ward on behalf of Kinondoni Municipal Authority.

The Hananasif ward consists of three ‘mitaas’ these are local government administrative units; Kisutu, Mkunguni and Hananasif. The Kisutu mtaa consists of both planned and unplanned settlement with a total population of 5,033; The Mkunguni, which is a planned settlement with a population of 12,465 and Hananasifu, which is largely consisting of unplanned settlement with a population of 14,806. The total number of households residing in Hananasifu ward is 5,384 with household size estimated at 6 persons. (Tanzania Population census, 2002)

The main characteristic of both planned and unplanned settlements in Dar-es-Salaam is caused by the lack of basic infrastructure and services including water supply, sewerage, access roads, drainage and solid waste management. Presently between 40 and 70 percent of the urban inhabitants live in the informal settlements. Some of the underlying causes of this situation and the resulting environmental degradation are inappropriate urban planning practice and policies, including institutional inefficiencies and
lack of co-ordination among the key actors in urban development. The worldwide Sustainable Cities Programme implemented by the UN-HABITAT introduced the environmental Planning and Management (EPM) approach in Dar-es-Salaam in 1992. Since 1998 the concept was being replicated in all the Municipalities in the country. Overall, the programme is benefiting more than 50 percent of the urban population in the country. One of the Dar-es-salaam successful cases using the EPM approach has been the HANNA NASSIF UPGRADED project. Following a request from the local community, the Government of Tanzania in collaboration with donor agencies and with participation of the residents, initiated the Hananasif Community Based Upgrading in 1995. The project adopted an innovative approach in both its institutional set-up and the use of labour-intensive community contracting and community management.

The aim of the Hananasif Upgrading initiative was to build capacity within the community for the improvement of infrastructure as a means of reducing poverty. The implementation of the initiatives also took into account the revised National Urban Development Policy (1995), which recognizes and provides a framework for regularizing informal settlements. They also followed the recent government policy on Employment Generation and Poverty Reduction by supporting small-scale enterprises and labour intensive approaches to public works.
The results of the Hananasif upgrading include a drastic reduction of water borne diseases from 4137 cases in 1996 to below 2000 in 2000; women and children no longer have to queue for water; over 60,000 worker days of employment were generated over the 4 year implementation period of which at least half benefited women, new skills have been acquired by the communities in project management, accounting, arts and crafts and micro-enterprise development. Last but not least, about 70 percent of the owners were paying property tax in year 2000. However the Hananasif upgrading did not include the component of solid waste management. (UNDP Evaluation report, 2000)

Over the last ten years, solid waste collection in Dar-es-Salaam has progressively moved from delivery by the public sector, to delivery through a Public Private Partnership (PPP) involving small and Community-Based groups and enterprises. By June 2003 approximately 50 small and community-based groups and enterprises including KIWODET were engaged in collecting waste in 44 wards out of 73 wards existing in the three municipalities of Dar es Salaam, including the unplanned settlements such as Hananasif ward. Using a franchising approach scaled up privatization of solid waste management in Dar es Salaam. "Under franchise contracts, the Municipality grants a private firm which includes community based groups an exclusive right to provide a specific type of service within a specific area. Often used in solid waste, the franchise is similar to the lease but instead of leasing facilities and infrastructure, the operator is only given the right to
delivery service and collects payment for the service rendered. This is often confined to a specified zone and constitutes a zonal monopoly for a fixed period of time. In a franchise agreement as in Dar-es-Salaam, the risk of fee collection is solely with the franchisee. Collecting fees is proving to be the biggest problem faced by franchisees and affects their ability to provide and sustain the services.

1.1 ORGANIZATIONAL PROFILE FOR KISUTU WOMEN DEVELOPMENT TRUST (KIWODET)

1.1.1 Introduction and Historical Background:
KIWODET is a community-based organization registered under the auspices of the Registrar of Societies in the Ministry of Home Affairs in 1999. The CBO which originally was known as Jitegemee group started in 1995 with six members, all women organized as a self help and social gathering group with all members living in the Kisustu street of Hananasif Ward in Kinondoni Municipality. The group started with tailoring and embroidery activities. When the activities were not profitable because of lack of market and skills they changed to start Mama Lishe activities. This activity also did not generate adequate income to sustain the needs of the members. Lastly the group resorted to start a solid waste collection and disposal activities in the Kisutu area in 1999 as a result of not getting adequate income from other activities. The other reason was that they realized that mikokoteni (Pull - carts) boys who were then operating and collecting waste/garbage in the area were earning enough for a living. Also haphazardly disposed waste was
becoming the biggest problem in the area. Many families were hiring children to dispose off their garbage at cheap rate but these children dumped the waste hazardously and thus, polluted the environment. The problem was accelerated with the fact that the Municipal waste collection services in the area was limited at the secondary collection points where all the households were supposed to dispose their waste, however this transfer station was far from many of the households. A larger part of Hananasifu Ward and especially Kisutu area has unplanned settlement with very poor infrastructure. Waste disposal was increasingly becoming a main issue and problem in the area. Hence the five women mobilized others to embark on waste collection activities and in June 1998 the group with 20 members started collecting waste in Kisutu area of Hanansaifu ward. KIWODET legally registered itself in 1999. The number dropped to 12 members as of March 2004 and all the remaining members are the founder members. These are managing the group as well as working as supervisors for the waste collection activities.

1.1 .2 Organization Management Structure for KIWODET (annex 1)

The KIWODET Management team includes the following:

1.) The Chairperson
2.) The Vice Chairperson
3.) The Secretary
4.) The Deputy secretary
5.) Treasurer
6.) Publicity Secretary

The members elect the management team during the general meeting, which is convened once annually. The leadership office term is three years. KIWODET has no Advisory Board however it is under the legal jurisdiction of the NGO Directorate of Vice Presidents Office. The Management team shown above manages the day-to-day activities of the organization with the Chairperson as team leader taking charge of all operations. The Secretary General coordinates the activities and keeps record of all transactions, meetings and other information. The secretary also does the accounting activities of the CBO. The Treasurer keeps books of accounts and records. All members participate in decision-making that involves the organization and supervise the day-to-day waste collection and other activities done by the organization (annex 2).

1.1.3 Activities of KIWODET

a) Solid Waste collection

KIWODET has been franchised by Kinondoni Municipal Authority to collect solid waste from residents of the three “mitaas” of Kisutu Mkunguni and Hananasifu in Hananasif ward. Each served household is obliged to pay between Tsh 500-1000 per month as a waste-collecting fee to KIWODET for the service provided depending on the garbage generation rate. KIWODET is also providing the waste collection service to business places such as Hotels, glossaries, shops, guests houses operating in the area and several other offices occupied by International and local organizations which pay a
rate between Tshs 4000-15,000. The group has also been contracted to sweep a 4 km main road of Kinondoni to which they are paid on a monthly basis by the Kinondoni Municipal Authority. The waste collection activities are done through laborers who are hired and paid on daily basis by the CBO.

b) Waste separation and recycling

Domestic waste consists of many reusable items, which if sorted and separated can be sold and reused by the local market such as industries. The group therefore does sorting and separation of reusable/recyclable items from the waste collected in the households and other premises. The recyclables include; plastics, glass bottles, papers, fabrics, and scrap metals. The group also makes products from the waste such as doormats from fabric waste materials and handbags from cell-phone filling cards etc. The sale of recyclables and waste products is contributing largely to the income of the group.

c) Compost making

Compost making is another activity for KIWODET. The compost is made from the organic waste collected from the households. The group has acquired an open ground space for making the compost. The product is sold to individual urban vegetable farmers and is very marketable. The group received training from ILO on compost making and had conducted several exchange visits to other compost making organization for learning purpose.
1.1.4 Source of Finance for KIWODET

Source of finance for the group’s operation include:

a) Membership fee of 5,000/ and monthly contribution of 1,000
b) Waste collection service fee
c) Sale from compost products
d) Sale from recyclables and waste products

The group operates a bank account with NMB branch of Magomeni Street.

1.2 THE PROJECT ASSIGNMENT

1.2.1 The Project Overview:

This project was designed to foster interactive learning between a learner and the Community Based Organization KIWODET. Through learning and provision of technical assistance in identified areas it was hoped that KIWODET would build it's organizational capacity and improve ways of conducting activities of delivering the solid waste management services to the community of Hananasif ward.

1.2.2 The CBO Organizational capacity and needs assessment

The organizational capacity and needs assessment was conducted at the Community Base Organization - KIWODET using focus group discussions. Two groups were involved in discussions; members and leaders as one group and members alone as another group. The open ended, semi-structured questionnaires were used to guide the discussion (annex 2). The purpose of the focus group discussions were to determine the group's needs
and prioritize them, as well as establish the existing internal capacity of the CBO based on activities of providing solid waste collection services to the community. Results of the needs assessments are presented in table12. The SWOT analysis was also done using a participatory approach with group members. It involved first looking at the successes of the organization since its establishment and what has enabled such achievements. Secondly, to observe challenges faced and suggested ways to overcome them. The SWOT analysis identified the Strengths and opportunities of the Organization, which provide a guarantee for the group's existence and could facilitate future developments. The analysis also identified weaknesses and threats, which needed to be addressed so as to improve the CBO's services and facilitate the smooth operation of the day-to-day activities.

1.2.3 Major Successes of KIWODET

i. Managed to mobilize community to accept the waste collection service and pay for it, which was initially difficult. The coverage has increased considerably for the past four years

ii. Income generation. The group is generating enough income, which has been sustaining group's activities without subsidy. The group is now managing to carry out secondary transportation of the waste to the dumpsite by hiring trucks instead of waiting for the municipal transportation. This has facilitated smooth operation of waste
collection at the household level as storage facility becomes available.

iii. Established a good relationship with the local government leaders in the area such as getting strong support from them.

iv. Have managed to secure franchising contract with the municipal authority for solid waste collection. Also secured contract for sweeping a 4 kms length of major roads, which is paid by the municipal authority. This has increased the CBO’s income considerably.

v. Have managed to reduce or eliminate child labor in solid waste collection activities in the area. The government and the local leaders have commended this initiative.

vi. The group has been strong and stable with members realizing the benefits for the work i.e. getting their monthly pay from the group’s income generated from the activities. This has contributed to reducing poverty in their families.

vii. Have provided jobs to more than 11 youths in the community who were jobless/unemployed and are now getting daily income from the waste collection activities.

1.2.4 Major Challenges of KIWODET

i. The group is managed by experience with no formal skills. Financial controls and management requires formal skills for proper
management thus for the group it has been a challenge. The financial records and books have not yet been audited externally.

ii. Community participation is still low, one "mtaa" of Hananasifu have completely refused to accept the services offered by the group, and others, who are served refuse to pay, only less than 60% of the served households and business places pay regularly. There needs a lot to sensitize the community so as to increase their participation in utilizing the service and paying for it. Many do not see the need of the service and others are reluctant to pay. Lack of sensitization skills is a challenge

iii. Lack of adequate working tools has been affecting the group performance as well as income. The daily hiring of trucks for secondary waste transportation has been their major problem. Provision of protective gears to the laborers has also been an issue of concern.

iv. Non-existence of the environmental management and cleanliness culture among many families in the community, which has resulted into haphazard disposal and dumping of waste in the area causing drains and sewerage systems blockage.

v. Prevailing poverty among the community members, lack of guiding policies and poor implementation of government strategies on proper solid waste management has affected community involvement and therefore quality provision of waste collection services.
1.2.5 SWOT analysis of KIWODET

During the assessment of the organization's capacity and needs, the following were identified as strengths, weakness, opportunities and threats than can be taken as guiding forces to improve the performance of the organization in service delivery at the community level. The strengths and weaknesses found are within the organization's capacity and can be improved and utilized without external assistance. The opportunities are seen as issues surrounding their working environment which may affect positively and improve the CBO's performance if can be utilized effectively, however the threats are the conditions seen externally which may hinder the group's progress. They include:

**Strengths**

i) It is legally registered and operates in the area

ii) Have experience and necessary skills in waste collection and recycling activities.

iii) Have personnel and some members with financial skills

iv) Have dedicated members who participate fully in the CBOs activities

v) Have experienced and strong leadership with good interpersonal relationship

vi) Have established good working relationship with local government leadership

vii) Created trust from the community where about 60% of the residents served are paying waste collection fee
Weaknesses

i) Weak organizational structure, which does not facilitate smooth flow of information as well as operational efficiency.

ii) Lack of Transportation facilities increase operational costs

iii) Lack of proper strategies in improving community awareness in solid waste management

Opportunities

i. Have legal contract with Municipal Authorities

ii. Good support from the Municipal Authorities and local government

iii. Solid waste management is an increasing issue of concern for the improvement of urbanization and infrastructure support for the unplanned settlement for the poor population in the third world countries and specifically in the Tanzanian Municipalities.

iv. Public, Private Partnership (PPP) approach, which engages Community Based Organization in service delivery, is well supported by the government and has been recognized as one of the cluster strategies of implementing the Country’s second phase of Tanzania Strategy for Growth and Poverty reduction

Threats

i) The coming country election may change political leadership and therefore support towards the CBO’s activities
ii) The increased cost of transportation may hinder CBOs performance and reduce CBO's income.

iii) A short term franchising contracts offered to the CBO by the municipality provide no security for investing in large projects such as purchasing of waste collection trucks.

iv) Community reluctance to pay and non-enforcement of bylaws by the local leaders

1.3 PROBLEM STATEMENT

The results of the needs assessment of KIWODET indicated that the CBO had a need to mobilize the community to participate in the efforts to improve community health and hygiene through environmental management (Table 12). The communities of all three "mitaas" also need to be educated and sensitized so that they understand the importance of environmental management and the consequences of polluted environment. KIWODET believe that, If well managed, waste could be reduced at the source by utilizing the recyclable materials by either reusing or selling hence reducing the volume of waste generated. Therefore, communities need to be well equipped with the skills, facilities and supporting policy environment that would promote waste management at the household level.

The improved infrastructure of Hananasif ward, which was developed through community participation, is now being jeopardized by the haphazard dumping of waste. This cause blockage of drainage system and a loss of
aesthetic beauty of the landscape. Most of the streets, which are not served by KIWODET, are full of garbage and the community is apparently less responsible to the waste they generate. The good results of the upgrading and infrastructure improvement seen in the year 2000, can not be sustained if solid waste will not be managed accordingly to safeguard the infrastructure established. Though the upgrading program of Hananasif under the Sustainable Dar es salaam Programme had a component of solid waste management, but community upgrading implemented did not include the community sensitization program on environmental management with regard to solid waste. The responsibility, of the City council and the municipal authorities, has been undermined by the stakeholders, the communities and the local leaders.

There are by-laws governing waste management in all the three municipalities of Dar es Salaam City where communities are required to participate fully and take responsibilities for the waste they generate. The bylaws entail each household to contribute a fee set by each municipality, to contracted/franchised waste collection service providers including private and community based organizations and KIWODET being one of the CBOs. The reasons underlying the unwillingness of the community members to pay the fee towards the waste collection service is not well known.

KIWODET has requested the author to assist in formulating a proposal to solicit funding to implement a community sensitization and educational
programme on environmental management, health and hygiene, so as to increase community participation in solid waste management in the area. The results of the educational programme was envisaged to raise the community awareness on their roles and responsibility in facilitating the environmental management in relation to solid waste disposal at the household level and on bylaws governing solid waste management. It was also hoped that the education programme would ultimately in a long run benefit the community members from solid waste through recycling, as well as improving health status by reducing disease transmission.

The Researcher opted to conduct a community survey, so as to ascertain the factors affecting community participation in solid waste management.
CHAPTER 2

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Many local authorities in developing countries suffer from lack of financial, technical and human resources and are therefore not capable to deliver most of the public utilities like water, waste disposal and the like. Especially low-income areas lack water supply, sanitation, electricity, and solid waste collection services. Many initiatives have been implemented by both the communities and external agencies in the efforts to provide and improve basic services. Many initiatives, that were initiated by the community as well as external agencies, have been set up to provide basic services. In the last decade it has increasingly been realized that community participation is essential to maintain the services. To keep solid waste management systems running, sustainably, at least a minimum participation of the community is required, for example practicing proper storage of waste, doing waste separation at household level, and more importantly contributing in cash towards the removal of the waste to the legal dumping site.

Community participation can be seen as a process in which community members are involved at different stages and degrees of intensity in provision and maintaining environmental and other services in the urban centers. Thus, community participation plays an important role in the sustainability of environmental management services and eventually having
a long-term impact on the environment and quality of life of the community. (Stanners and Bourdeau, 1995: 261, 309).

This literature survey examines the importance and role played by communities in environmental management services and specifically in solid waste management services, and factors influencing active community participation and its long-term sustainability for sustainable development. The review will comprise both theoretical and empirical. The empirical review looks at the solid waste management issues in Tanzania and specifically in Dar es Salaam and the role of community participation and how is affecting the waste collection service provision. Policy guiding the environmental management has also been looked at to identify the gaps and opportunities for improving solid waste management in the country.

2.2 THEORETICAL REVIEW

2.2.1 Sustainable developments and the environment

Rapid urbanization causes enormous pressure from urban areas on the environment. Cities import natural resources, which are transformed into goods and services, and in the end, are returned to the environment in the form of emissions and waste. This leads to local, regional and global environmental problems, such as resource depletion, deterioration of air, water and soil quality, lack of green space, waste generation, and many others (Stanners and Bourdeau, 1995: 261, 309). These environmental problems also have socio-economic consequences. Poor environmental
quality of cities can deprive citizens of a high standard of life as it affects their health and well being (Geenhuizen and Van Nijkamp, 1995).

Sustainable development is related to the quality of life in a community, meaning that the environmental, social and economic systems that form the community must provide a healthy, productive, meaningful life for all community residents, both in the present as in the future (Mitlin and Satterthwaite, 1994:5).

Applied to cities, the multiple goal of sustainable development can be described as; "Keeping wastes from cities within absorption capacity of local and global sinks. These include renewable sinks (e.g. capacity of rivers to break down biodegradable wastes) and non-renewable sinks (for persistent chemicals)." So, sustainable development combines improving the quality of life and controlling or limiting the harmful impacts of human activities on the environment (Hardoy et al., 1992: 172).

2.2.2 Sustainable solid waste management

Most cities in developing countries face urban environmental problems and these are partly caused by inadequate provision of basic services such as water supply, sanitation facilities, transport infrastructure and waste collection. Due to a lack of financial, human and technical resources, municipalities are not able (or willing) to provide basic services to all neighborhoods within their city. Especially the poor neighborhoods are
deprived of basic services and they end up paying more for services (like water) to private providers than they would if the municipality would deliver those services. Moreover, the limited resources available are invested in middle and upper income neighborhoods and the needs of the urban poor are not taken into account. This situation also holds true for solid waste management. On estimation about 30 to 50 percent of the generated solid waste in the urban cities remains uncollected and this causes health hazards, smell nuisance, pests, environmental problems et cetera. There is an urgent need for sustainable solid waste management systems and such a system should involve environmental, social and economic objectives. (Klundert and Lardinois, 1995: 41; Grafakos and Baud, 1999: 8, 9).

Klundert and Lardinois (1995) emphasize that for environmental sustainability, solid waste management needs to work towards the following objectives: first the generation of waste, both by consumers and producers, should be minimized. Waste minimization at the production site, can be achieved through a new organization of production processes, which makes use of clean technology and use less packaging materials. At the consumption site, waste generation can be reduced by awareness-raising campaigns on the environmental impacts of waste and on recycling and reuse. Attention should be paid to the waste generating behavior of the target group. For example, upper and middle-income households import a lot of products therefore the amount of waste generated contain more plastic and packaging materials, than waste produced by low-income groups. Poor
people produce less waste since they often re-use or sell valuable materials and the main part of their waste consists of organic materials.

Secondly, re-use and recycling should be maximized. This includes recognizing and making use of the informal sector including community based organization (CBOs), and micro-enterprises that are already involved in collecting and selling recyclable materials.

Thirdly, the remaining waste should be disposed of in a controlled manner in order to stay within the absorption capacity of local and global sinks. For developing countries the best method, regarding technical and financial means, is disposal at landfills. However, the ultimate goal is to reduce waste generation and optimize recycling in such a way that waste becomes a closed-cycle system, preventing loss of raw materials, energy and nutrients. (Klundert and Lardinois, 1995).

The author continues to argue that apart from environmental goals, a sustainable solid waste management system should also include social and economic objectives, like equal access to waste collection service, and efficient and financial viable waste services. In more detail, these objectives entail:

i. Waste services, like waste collection and cleaning of public spaces, should be provided to all strata of society, regardless of income, ethnic group or social status. At present in Tanzania, most poor
unplanned neighborhoods are deprived of waste collection and suffer from the environmental and health risks of uncollected waste, like smells and risks of diseases transmission. One of the reasons is that poor neighborhoods are not accessible for garbage trucks, and therefore municipal authorities pay little attention to these areas

ii. More efficient coordination within the sector of solid waste management. This may entail involvement of other actors, like private enterprises, micro-enterprises or the informal sector such as community-based organizations, but ultimately local government must be accountable for the functioning of the solid waste management system.

iii. The system should remain financially viable for all the actors involved. This includes introducing a fee system that aims at full-cost recovery from those who receive high levels of service. Fees must be in accordance to the economic situation of the receivers of waste services, establishing legal framework that supports the involvement of the private sector such as by laws to guide roles and obligations of all stakeholders including the community being served.

2.2.3 Community participation in environmental management

In the 1990s community-based approaches to environmental problems have become widespread, since there is an emerging global consensus that the
implementation of sustainable development should be based on local-level solutions and community participation. In the following section the definitions of terms and concepts of community participation in solid waste management are elaborated.

a) Definitions

Some terms used frequently in this report are defined here to avoid confusion.

**Solid waste:** is discarded non-liquid materials from households, industrial and commercial establishments, institutions, and streets, that do not have value any more in the eyes of the first generator or user.

**A neighbourhood/ "Mtaa":** is a geographical location, the lowest administrative entity in which a community lives.

**A community:** is a group of users of a service who live in the same area and have access to, and use, the same service.

**Community participation** may comprise varying degrees of involvement of the local community. It may range from the contribution of cash and labor to services offered or consultation, changes in behavior, involvement in administration, management and decision-making. For the purposes of this report, community participation is defined as; the willingness to handing over separated and stored waste at a particular time to the waste collector; and contributing in cash for the services offered, that is payment of service charges, i.e. a monthly or weekly payment based upon agreement and set fee structures (Anand, 1999 pg 161-176).
**Sustainability**; in solid waste management service means the waste
collection services will prolong endlessly together with the conditions that will
sustain the service such as cost recovery of the service operations by the
service providers (Muller et al. 2002).

**b) The concept of community participation in solid waste management**

In many developmental activities, communities are seen as homogeneous
and harmonious units, where the members are considered to have the same
priorities and concerns. Several assumptions inspire approaches to
community-based sustainable development approaches, like the existence
of homogeneous, consensual communities and of potentially harmonious
relationship between different communities. Most of the time, the community
is considered to be capable of acting collectively towards common
environmental interests (Leach et al., 1997: 4, 5). In the literature (Moser,
1989; Leach et al., 1997; Guijt and Kaul Shah, 1998) much critique has been
expressed on this view. According to Leach et al. (1997) serious attention to
social, cultural and economic differences and their implications have been
remarkably absent from the involvement of communities in environmental
activities. Rather than common beliefs, often conflicting values and priorities
occupy the community and these may be underlying causes for social
heterogeneity and conflicts. Normally factors like gender, wealth, age,
origins, caste, and other aspects of social identity divide members of a
community. To avoid the difficulties inherent to the concept of community, in
this report a more practical definition of the concept was adopted. A
community in this sense refers to a group living in a certain geographical or administrative area, e.g. a neighborhood that has access to and uses the same service (Anschütz, 1996: 14). This is not to say that the community is considered to be homogeneous, but it is realized that conflicting interests and priorities may exist between different groups or individuals within the community and that these must be recognized and handled accordingly.

Apart from the concept of community, there exists no clear consensus about the concept of community participation and the result is that community participation is used in various ways with different meanings (Moser, 1989: 81; Desai, 1994: 170). According to Paul (1987), community participation is an active process by which the community influences ‘the direction and execution of a development activity in order to enhance their well being in terms of income, personal growth, self reliance or other values they cherish’ (Paul, 1987: 2). In this definition the key issue is that the community influences the services. However solid waste management services is not a priority with many communities, hence community participation towards the services is very minimal, it is therefore recommended that, much emphasize need to be given in this area so as to stimulate and motivate communities to achieve active participation and involvement in environmental management services.

Since members of a community have different roles, there are also various ways in which they can participate in solid waste management. At the
individual level, residents are responsible as waste generators and users of the waste collection services. This involves actions like storing waste in a proper way in a bag or bin, separate recyclable or organic materials from other waste, delivering waste at the right place at the proper time for collection, and cleaning the area around the house (Bulle, 1999: 20; Muller, Unpublished). Apart from individual responsibility, people can be collectively responsible and this means participation in more or less organized activities, like meetings, clean-up campaigns, and awareness-raising activities. Furthermore, community participation may involve financial or physical contributions to activities of solid waste management, for instance organizing into a community based groups to work collectively in the waste collection activities in the area, as well as paying fees for waste collection (Bulle, 1999: 20). A step further is actively participating in following up with the waste management activities in their community, like participation in meetings and expressing opinions and ideas about the performance and progress of the waste collection activities in the area.

Apart from various ways to participate, there are several degrees in participation of different community members. Not all members of the community like the poorest or most marginalized groups have equal access to information or are sufficiently represented and are capable of participating equally due to the income status or physical disabilities. Special attention should be paid to the role of women in participation. In many situations women are the first to be affected by a deterioration of the environment and
are most willing to participate in activities that improve their living conditions. However, religious barriers, traditions, social hierarchy, low rate of literacy, or the burden of domestic tasks may retard their participation (Bulle, 1999: 24, 25, 43).

2.2.4 Factors affecting extent of community participation

There are certain factors that can enhance the sustainability of community participation hence of the waste activities initiated at the community level as argued by Klundert and Lardinoise (1995) are listed as follows;

i) Communication strategies are essential to generate broad-based understanding of solid waste issues among community members

It is very important that the communities themselves identify the waste problem as their problem and that, its solution is for their own benefit. Therefore, communication strategies, like awareness-raising campaigns, are vital to stimulate community members to participate and to keep the community informed about the activities. In this way, the sense of local ownership can be enhanced, meaning that the community feels responsible for the services, like waste collection. When community members see that the activities are for their own benefit and feel responsible for services, they will also show an interest in the follow-up of the service and its continuity (Gozun, 1994: 3, 5; Bulle, 1999: 26). Furthermore, communication strategies can be used to assess the ability of the individual household to pay for services and to create demand for the service and in this way increase the community's willingness to pay. In addition, good communication can ensure
that community's expectations of the waste service do not exceed what is reasonably achievable and affordable (McCommon et al., 1998: 25).

**ii) Representative local leaders and CBOs can stimulate community participation**

By lending their support to the waste collection initiatives and efforts, community leaders can encourage the community to participate. They can also initiate systems by say setting up committees, and local rules and regulations (by-laws) to support clean-up campaigns, proper waste storage and separation and active participation of all community members. Furthermore, they can act as intermediaries between CBOs, the local authorities and other stakeholders to solve conflicts or constraints (Bulle, 1999: 22, 23, 42). In whatever way local leaders are involved, their representativeness and legitimacy is very crucial and influential in facilitating active and sustainable community participation. Apart from local leaders, CBOs must also be representative of the community. If local leaders or CBOs do not represent the community or only a small part of it, difficulties will arise in achievement sustainable community participation.

c) **Women play a determining role in waste management and they form important channels of communication**

In many solid waste collection services, the important role of women is overlooked and often they are not listened to or their needs and circumstances are not sufficiently taken into consideration. In most
situations, women are the managers of households and thereby they are responsible for cleanliness within and around the home and for taking care of waste. In some societies, this task also involves paying for waste collection and therefore it is vital to include women in determining the fees for waste services. Apart from domestic tasks, women can be active members of CBOs, can stimulate participation of other women or community members in waste management activities. (Bulle, 1999; Imperato and Ruster, 1999: 13-29, 3-30; Scheinberg et al., 1999).

2.3 EMPIRICAL REVIEW

2.3.1 Community Participation in environmental Management – The Dar es saalam Experiences.

About 70 percent of the populations in Tanzanian cities live in unplanned areas, the squatters. The main characteristic of both planned and unplanned settlements in Dar-es-Salaam is the lack of basic infrastructure and services including water supply, sewerage, access roads, drainage and solid waste management. The environmental Planning and Management (EPM) approach was introduced in Dar-es-Salaam in 1992 by the worldwide Sustainable Cities Programme implemented by the UN-HABITAT. (URT/97/022 doc). The EPM approach permits the different stakeholders to discuss their problems, negotiate strategies and seek solutions collectively to priority issues of common concern. The approach enables and enhances participation and builds commitments among stakeholders, which includes
community members in managing environment sustainably. One of the Dar es Salaam successful cases using the EPM approach has been the HANANASIF Upgrading project. Following a request from the local community, the Government of Tanzania in collaboration with donor agencies and participation of the residents, initiated the Hananasif Community Based Upgrading in 1995. The aim of the upgrading project was to improve the infrastructures and regularize the unplanned, informal settlement as means of reducing poverty. The project adopted an innovative approach in both its institutional set-up and the use of labour-intensive community contracting and community management hence increasing community participation in local developments.

Both initiatives aimed at building the capacity within the community for the improvement of infrastructure as a means of reducing poverty. The implementation of the initiatives also took into account the revised National Urban Development Policy (1995), which recognizes and provides a framework for regularizing informal settlements. They also followed the government policy on Employment Generation and Poverty Reduction by supporting small-scale enterprises and labour intensive approaches to public works. (Muta A, 2004, pg 24-26 ILO unpublished report)

Over the last ten years, solid waste collection in Dar-es-Salaam has progressively moved from delivery by the public sector, to delivery through a Public Private Partnership (PPP) involving small and Community-Based
Enterprises. Since the initiation of the PPP approach the waste collection services has improved dramatically from 5% waste collected in 1992 to 40% in 2003. (Ishengoma A, Toole K, 2003 ILO unpublished report pg23-32)

By June 2003 approximately 50 small and community-based enterprises including KIWODE T were engaged in collecting waste in 44 wards out of 73 wards existing in the three municipalities of Dar es Salaam, Hananasif ward being one of them. Using a franchising approach scaled up privatization of solid waste management in Dar es Salaam. Under “franchise” contracts, the Municipality grants a private firm an exclusive right to provide a specific type of service within a specific area. Often used in solid waste, the franchise is similar to the lease but instead of leasing facilities and infrastructure, the operator is only given the right to deliver service and collect payment for the service rendered. This is often confined to a specified zone and constitutes a zonal monopoly for a fixed period of time. In a franchise agreement as the case of Dar-es-Salaam city, the risk of fee collection is solely with the franchisee. Collecting fees is proving to be the biggest problem faced by franchisees and affects their ability to provide services and pay dumping fees (Ishengoma A, Toole K, 2003 ILO unpublished report pg 33).

Franchising approach removed the problem of divided responsibility for leased equipment, although fixed assets such as permanent collection points are still the responsibility of the city authorities. Fee collection became the sole responsibility of the franchisee, although the council is responsible for providing support in awareness rising. The franchise arrangement addressed the need for private investment in equipment, thereby freeing city
vehicles to provide back-up support to franchisees and to collect waste from areas without franchisees.

Community participation in form of service fee payment for solid waste collection services in Dar es Salaam has been cited as a major issue of concern and has become a constraint to many service providers. (Cod A. 2003 pg 9-10). Many of the service providers in Dar es Salaam city who were interviewed by the writer complained of very low percentages of customers who were actually paying the fees. Though some customers were reported to have cited delays or failures of the service as reasons for non-payment but many did not have any concrete reason for the failure to pay the fee. The survey indicated that fee payment is between 10% and 25% of the customers being served. In this report, many service providers claimed that those who were not paying the fee were still benefiting from the service. Some customers who did not pay had been taken to court, and if the prosecution was successful there was a pronounced improvement in the numbers of nearby residents who paid their fees for a short time. Such legal action has been most successful in the wards, which were covered by the existing by-law (and where there is also a greater familiarity with the concept of private sector collection.) However, since the by laws covering most of the City, at the time were newly formulated therefore not known by many residents and since court cases took considerable time, legal action was not seen by most service providers as an effective way of ensuring payment from the customers. There is no doubt that there is a greater willingness to
pay where the waste collection service is very reliable, but it is difficult for franchisees to provide a reliable service if they cannot collect sufficient income to meet their operation costs.

Currently there is no enough information as to why the communities are not willing to pay for the service besides the fact that they could be receiving the services regularly. More survey and research need to be conducted in this aspect to ascertain the reasons for low community participation in solid waste management as in the case of Dar es Salaam City.

2.4 POLICY REVIEW

Tanzania does not have a comprehensive policy on Environment. Actions addressing environmental problems are sector oriented with the main policy focus on protected area systems for forests and game. Responsibility for environmental protection is shared among different line Ministries with no formal coordination between them at both the programme and policy level (Njau, and Mugurus 1995:37).

Although Tanzanian Government is part to Basel Convention whose central goal is environmentally sound management of waste aiming at protecting human health and environment by minimizing hazardous waste generation whenever possible, contradictory, the country has no comprehensive national policy guidelines on waste management to support that. The lack of this policy has been identified as major underlying causes of poor waste
management prevailing in the country. (URT, 2003; Ministry of Health 2003). Moreover, Legislative provision for the collection and disposal of waste in Tanzania is non-existence at national level. The authorities responsible with environmental issues however are working hard to ensure such legislative is in place. The authorities include; The national Environmental management council (NEMC), Vice President’s Office Division of Environment, The Ministry of Health (MOH), the Ministry of Local Government and Regional Administration (MLGRA). The Ministry of health is currently drafting the Public Health act and Industrial and Consumer Chemicals Act that should cover waste Management issues regarding their effects to human being.

The Ministry of Health is responsible for the formulation of policy and legal framework for the waste management in collaboration with other ministries and stakeholders as mentioned above. The local Authorities are responsible for overall management of waste in their area of jurisdiction. With no policy and legal framework to guide them, the Local Authorities are left with no option but to develop their own legal framework to facilitate the waste management. To this effect each Municipal Authority has developed by-laws for collection and disposal of solid waste management within their area of operations. For example, Kinondoni Municipal Authority has a by-Law: the “Waste Management- collection and disposal of refuse, by-law No. 1 of 2000”, The Ilala and Temeke Municipalities have the following by-laws: “Solid Waste Management - Collection and Disposal of Refuse 2001” and “Solid Waste Management collection and disposal of Refuse 2002"
respectively. These by-laws vary across the boarder, for example they have
different refuse collection fee structures, however are similar in the way they
provide a legal framework for waste management in the areas involved.

In August 2003, the Ministry of Health came up with the Waste management
Guidelines. The guidelines have the main objective of providing guide on
how waste should be properly managed at all level in the rural and urban
settings. They provide quick reference materials for technical personnel,
decision makers and communities, promote good practices and encourage
partnership and multi-sectoral approach in waste management, ultimately
creating uniformity in approaches and the state of art for the waste
management across the country. However the guideline document is not a
legal document, is only recommended for use to ensure that the
environment and health is appropriately managed and the local authorities
are required to use the guidelines as basis for setting mandatory conditions
in their area of jurisdiction for proper waste management.
CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1 BACKGROUND

From needs assessment results, it was considered necessary to conduct a community survey to authenticate the need for proposal formulation. The survey was envisaged to establish factual areas, which, needed to be addressed from the community perspective. Local problems need to find local solutions and be dealt with from the root causes, hence information gathering from the community through interviews was envisaged to provide good and wide scope of assessment of the actual situation, major causes and recommendations on solutions to such problems coming from the local level. The community survey was aimed at assessing and establishing the extent of community participation in solid waste management services offered by KIWODET and provides recommendations from the local level to improve the participation. Moreover, the information generated from the survey was envisaged to provide background information for situational analysis in proposal formulation, requested by KIWODET to facilitate fund raising for promoting community participation in environmental management services.

3.2 OBJECTIVES OF THE COMMUNITY SURVEY

The objectives of the community survey were:

a) To establish the perception of the community on environmental management in respect to solid waste management
b) Determine the extent and limitation of community participation in the solid waste management collection services

c) Establish the community perception on the CBOs activities in the area,

d) Suggest and recommend measures to improve community participation in solid waste management.

e) Develop a concept note for donor funding to improve the community participation in solid waste management.

3.3 SURVEY DESIGN AND METHODOLOGY

The survey was designed such that information to address the objectives set were obtained from the community through interviews. The survey tools included; the structured questionnaires containing both open and closed ended questions (Annex 3). The target population for the survey were the residents of the three “mitaas” of Hananasif ward including; Mkunguni, Kisutu and Hananasif.

3.3.1 Survey Design

A cross section survey design was adopted where data was collected once in time. The interviews were conducted at respondent’s home by trained enumerators who filled in the questionnaires. The survey units were the head of households and key Informant including mitaa leaders (known as ten cell leaders) and “Mtaa” chairman who are elected by the people. The questionnaires provided the opportunity for respondents to identify
him/herself by name if he/she wishes. The researcher and members of KIWODET supervised the eight numerators who first got familiarized and trained on the questionnaires, which were then translated into Kiswahili to clarify the meaning of each question.

3.3.2 Primary data collection

3.3.2.1. Sample size and sampling procedure

The target population was 5,384, households and 300 'mitaa' leaders from the three "Mitaaas". The sampling intensity was 5 percent. Therefore the sample size for the survey was 269 households and 15 community leaders. The numbers of households interviewed from each of the three "mitaas" were Mkunguni 103 households, Kisutu 42 households and hananasif 123 households.

3.2.2.2 Sampling frame

The sampling frame for the survey was a list of names of the residents in the registry of residents, obtained from the "mitaa" leaders. The respondents were selected at random from the residents' registry, however, this included both households using and those who are not using the KIWODET- waste collection services. This was expected to provide wide range of information to address the survey objectives. The final decision on including a household in the survey was subject to the willingness to participate of the members of the household present at the time. In most cases women volunteered to be interviewed but men only volunteered when
a woman household member was not present at the time. Only adult household member had the opportunity to be interviewed.

3.2.2.3 Participant observation

In addition to data collection by using questionnaires participant's observation on the status of environmental cleanliness in the three “mitaas” was undertaken.

3.3.3 Pilot testing

The questionnaires were pre-tested before the actual survey. The purpose of pre-testing the questionnaires was to assess on whether the information provided was relevant to the purpose of the survey and the respondents easily understood the questions. The questionnaires were then slightly modified to accommodate the following: (i) Space between questions to allow the respondent record all information they wanted to give out, (ii) More questions added to get information on their limitation on paying for the services, and (iii) removed some of the questions, which did not give out clear answers/information from the respondents.

3.3.4 Secondary data collection

The secondary data were obtained from reports, documents, articles and other relevant materials prepared by International Labour Organization –The Solid Waste Management programme,( Mwenda G. April 1999 ; Bituro B.K.
April 2001; Ishengoma A. October 1998; Coad A. 2001) and other institutions involved in SWM such as the Dar es Salaam Municipal Councils of Temeke, Kinondoni and Ilala, (Kirango J. Sept. 1999) and the UN-HABITAT programmes of Sustainable Cities (Pro Doc URT/97/025 April 1999) for gathering of secondary information and data related to the community participation in solid waste management. The secondary information and data were used to cement and compare the information gathered during the survey.

3.4 DATA ANALYSIS

The data were coded and analyzed using the Statistical Package for Social Scientist (SPSS ver.10.0). As questionnaires were designed to give both quantitative and qualitative data, sets of categories of information from the filled questionnaires were drawn for each question addressing the objective of the survey (Annex 3). Both frequency and descriptive statistical analysis were performed on the quantitative data (annex 5).
CHAPTER 4

4.0 SURVEY RESULTS AND DISCUSSIONS

4.1 THE PERCEIVED ROLE OF COMMUNITY MEMBERS OF HANANASIF WARD IN SOLID WASTE MANAGEMENT SERVICES

From the survey findings, 73% of the Hananasif community perceived that their role in solid waste management in their area is just cleaning up their houses and surroundings, which is only one element of the waste disposal. 

(Table 1) Another 8.8% of the interviewed community members responded that their role is also to sensitize the other people to keep their environment clean) and these were mainly those who were using the services provided by KIWODET.

Table 1: Respondents perceived role in solid waste management

<table>
<thead>
<tr>
<th>PERCEIVED ROLE</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning the house and surrounding area daily</td>
<td>166</td>
<td>63.6</td>
</tr>
<tr>
<td>Sensitize other community members</td>
<td>20</td>
<td>7.7</td>
</tr>
<tr>
<td>Proper storage of waste</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>Cleaning and proper storage of waste</td>
<td>17</td>
<td>6.5</td>
</tr>
<tr>
<td>Do not know</td>
<td>8</td>
<td>3.1</td>
</tr>
<tr>
<td>Not clear</td>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>Proper storage of waste and paying collection fee</td>
<td>2</td>
<td>.8</td>
</tr>
<tr>
<td>Make sure that the surrounding is clean</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Do not have any role</td>
<td>34</td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: survey data 2004

Only 0.9 % of the community members acknowledged that they have the responsibility of properly storing the waste and paying for the waste collection services provided. This indicates that communities have minimal knowledge on their responsibility and roles in managing the waste they
generate. It was also noted during the survey to some extent that the community members still perceive that the provision of solid waste management services is a Government responsibility as it used to be way back when the government provided waste collection services to all the communities. The community also indicated this during the survey where 17% of the respondents when asked to provide their recommendations on how waste collection services can be improved, they recommended that, the government should provide the services by effectively building transfer stations nearby and providing trucks to collect waste frequently. (Table 2)

Table 2. Respondent's recommendations on improvement of environmental cleanliness

<table>
<thead>
<tr>
<th>RECOMMENDATIONS</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitization of community members on proper waste storage</td>
<td>59</td>
<td>22.6</td>
</tr>
<tr>
<td>Community to participate in cleaning the environment</td>
<td>44</td>
<td>16.9</td>
</tr>
<tr>
<td>Initiate special committee to follow up waste collection</td>
<td>24</td>
<td>9.2</td>
</tr>
<tr>
<td>Government to provide the service and working equipment</td>
<td>46</td>
<td>17.6</td>
</tr>
<tr>
<td>KIWODET reduce fee is too high</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>Community should be empowered to be able generate income</td>
<td>15</td>
<td>5.7</td>
</tr>
<tr>
<td>KIWODET improve quality of services</td>
<td>28</td>
<td>10.7</td>
</tr>
<tr>
<td>None</td>
<td>13</td>
<td>5.0</td>
</tr>
<tr>
<td>Government to strictly enforce bylaws</td>
<td>14</td>
<td>5.4</td>
</tr>
<tr>
<td>Improve infrastructure such as sewerage systems</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Government to ban plastic bags</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: survey data 2004

Community members and local leaders in urban communities play different roles in solid waste management. These roles correspond to different levels
of community participation. Community members can participate in solid waste management by showing proper "cleaning" behavior, contributions in cash, or in kind, labor, and through consultation. Others include participation in administration and management of solid waste services. Proper "cleaning behavior" facilitates solid waste management systems. This include:

a) Abiding to routine agreed for solid waste system (rules, schedules and fee collection payment e.g. to offer it at the right time and place to the collection team)

b) Proper sorting and Storage of garbage in a plastic bag, a special bin etc.

c) Participate in clean-up campaigns

d) Keep house and immediate environment clean for example drains, streets in front of the house

e) Sensitize other community members in keeping the environment clean and be a watchdog to monitor "cleaning" behavior.

4.2 COMMUNITY KNOWLEDGE OF BY-LAWS GOVERNING SOLID WASTE MANAGEMENT IN HANANSIFU

The findings of the survey indicates that 85% of community members and 67% of local leaders who were the respondents were not aware of the existence of by- laws (table 3 & 4.)
Table 3: **Community knowledge of bylaws governing waste management**

<table>
<thead>
<tr>
<th>Respondents Knowledge on bylaws</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>38</td>
<td>14.6</td>
</tr>
<tr>
<td>No</td>
<td>218</td>
<td>83.5</td>
</tr>
<tr>
<td>Total</td>
<td>256</td>
<td>98.1</td>
</tr>
<tr>
<td>9.00</td>
<td>5</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: survey data 2004*

Table 4: **Local Leaders Knowledge of existing bylaws in solid waste management in the area**

<table>
<thead>
<tr>
<th>Local Leaders Knowledge of bylaws</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>10</td>
<td>66.7</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: survey data 2004*

The results revealed that *people* are not aware that the Government policy towards solid waste management has changed and now communities are required to participate fully in managing the waste they generate at the household level. The engagement of private sector including community-based groups is a new approach, which the Government of Tanzania is initiating and promoting in the effort to improve service delivery such as solid waste collection in poor urban areas. However, this approach entails full community participation. To effect this the local Government Authorities including Kinondoni Municipal Authority have formulated by-laws to guide the implementation process. One of the components of the by-laws describes the roles and responsibilities of each community member with regard to waste management (Kinondoni Municipal Council By law--- of 2000). However the set back to this is how much the information and
knowledge on the by-laws have been filtered and disseminated at the community level. Are the communities aware of these bylaws? Were they consulted in formulating them? The findings of the survey showed clearly that the information on the by laws have not been disseminated properly.

The findings raise two major concerns which, are; either the by laws were not formulated in a participatory manner involving the community members but installed using a top down approach or, many of the community members now residing in Hananasif were not residents when the bylaws were formulated. There is a greater possibility for the later due to the fact that it is a common knowledge that most of the residents of low-income areas of Dar es Salaam are tenants and not house owners, thus, they tend to move from one area to the other in a short span of time. Moreover even the 15 % of the respondents who claimed that they are aware, could not mention any of the existing by-laws. The Kinondoni Municipal Waste Management and Refuse collection By laws of 2000 specifically state that “Every occupier or tenant of any residential house or trade premise shall provide and maintain, to the satisfaction of the Authority, two receptacles fitted with effective lid for purpose of keeping domestic or trade refuse from such house or trade premise --- by-law 4(1). Continues in By law13 (1) which states that; every household or occupier shall pay refuse collection fees every month in a manner provided for in schedule “C” to these By laws. Schedule “C” indicates the refuse collection charges rates, which specify according to the income status of the area such as low income, medium
income and High income. Low-income areas like those, the by law 15 (2) in the Bylaws states that: ---The Authority shall cause to be served upon the defaulter( the person who fails to pay the refuse collection fee) a demand note of not less than seven days expressed an intention of the Authority to commence recovery measures-----.

The ignorance among community members including their leaders of by-laws installed by the local government is a critical issue. It is more critical that the findings of the survey revealed that 66% of the local government leaders whose role is to enforce the established bylaws are not aware of the existence of these bylaws (Table 4). The municipal council to facilitate community participation has formulated by-laws. However dissemination of these by laws has not been done adequately. It is no doubt that sensitization on the existing by laws and the roles and obligations of each stakeholder is needed to maintain community participation, to establish a ‘spirit of responsibility’ towards environmental problems and the most appropriate ways of dealing with such problems. Moreover, it is necessary to inform households about the consequences of not abiding to the bylaws. This is a challenge to the Local Government Authorities as well as the “Service providers” including KIWODET as more efforts and a precise strategy is required to sensitize the community and disseminate necessary information with regard to changing policies and systems in order to facilitate the environmental management services.
4.3 THE ROLE OF LOCAL LEADERS OF HANANASIF WARD IN SOLID WASTE MANAGEMENT SERVICES.

From the survey findings (Table 5) 47% of the community members who were respondents felt that local leaders are not involved in solid waste collection activities in the area, and only 23% acknowledged that the leaders are involved in sensitizing the community in "cleaning" campaigns.

Table 5: Local leaders involvement in environmental "cleaning" programme

<table>
<thead>
<tr>
<th>Local Leaders participation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community sensitization</td>
<td>60</td>
<td>23.0</td>
</tr>
<tr>
<td>Supervision and monitoring at household level on cleanliness</td>
<td>21</td>
<td>8.0</td>
</tr>
<tr>
<td>Not involved</td>
<td>121</td>
<td>46.4</td>
</tr>
<tr>
<td>Do not know</td>
<td>54</td>
<td>20.7</td>
</tr>
<tr>
<td>Total</td>
<td>256</td>
<td>98.1</td>
</tr>
<tr>
<td>System</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: survey data 2004

To support Solid waste management activities, local leaders in the area are regarded as champions of community sensitization and mobilizations (Zurbrugg C. et al 1999 pg 2). Local leaders of Hananasif ward are formal leaders who are elected by the community members as local representatives to the Government. Informal leaders existing in Hananasif community are the influential members of a community on the basis of status such as political parties, churches, youth and women's organizations, neighborhood committees, etc. All local leaders may have different roles in solid waste management. Usually formal and informal leaders should be more involved
in solid waste management. The major role of the local leaders in management of solid waste services includes, enforcement of by laws, sensitization of community for full participation in environmental management activities as well as keeping in contact both with the municipality, the community based group and the community. Another important role which local leaders can play is to encourage people to use and pay the services of waste collections, to make sure that people pay the fees, to stimulate the separation of waste and monitor the performance of the service level (Muller, 1999 Unpublished pg 32). Further more the leaders should act as negotiator for local authorities, supervise the performance of the local authorities and private enterprises and act as pressure group to obtain services from the local authorities and service providers.

By lending their support to the waste collection initiatives and efforts, community leaders can enhance community participation. They can also initiate systems by say setting up committees, and local rules and regulations (by laws) to support clean-up campaigns proper waste storage and separation and active participation of all the community members. Furthermore, they can act as intermediaries between CBOs, the local authorities and other stakeholders to solve conflicts or constraints (Bulle, 1999: 22, 23, 42). In whatever way local leaders are involved, their representative ness and legitimacy is very crucial and influential in facilitating active and sustainable community participation.
Besides sensitization, to enhance the community participation, the local leaders must enforce the existing by-laws governing solid waste management in the area. To enforce by laws, the local leaders must be aware of their existence however from the survey results 67% of the respondents are not aware of existing by laws (Table 4) and therefore do not enforce them. Local Leaders are expected to enforce by laws set in the community to maintain peace, as well as facilitate development. Solid waste management is part of developmental activities and should therefore receive equal attention by the local leaders.

Moreover, the findings of the survey revealed that even the local leaders themselves expressed the need to be educated on the existing by laws and their role in facilitating the solid waste management activities. 60 % of the leaders when interviewed recommended that the community should be sensitized and provided required education and knowledge, and that enforcement of by laws by the government will, to a large extent increase community participation in the form of paying collection fee and reduce haphazard waste dumping. (Table 6)

Table 6: Local Leaders recommendations for improving/increasing community participation

<table>
<thead>
<tr>
<th>Local leaders recommendations</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental educational programme for community</td>
<td>9</td>
<td>60.0</td>
</tr>
<tr>
<td>Stringent enforcement of bylaws</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Sensitize local leaders on their role</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Reduce waste collection fee</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: survey data 2004
4.4 EXTENT OF PARTICIPATION OF HOUSEHOLDS OF HANANASIF WARD IN THE SOLID WASTE COLLECTION SERVICES PROVIDED BY THE CBO –KIWODET

The survey findings in table 7 show that 65 % respondent to the survey were not using and therefore not paying for the services provided by KIWODET and only 35% use services. The situation jeopardizes the sustainability of the services provided by KIWODET.

Table 7: Respondent’s Extent of use of the services offered by KIWODET

<table>
<thead>
<tr>
<th>Use of services</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>170</td>
<td>65.1</td>
</tr>
<tr>
<td>Yes</td>
<td>91</td>
<td>34.9</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: survey data 2004*

There are many reasons indicated by the respondents why they are not using the services. It was found that, (Table 8) 64% of those who are not using the services said they were not aware of the services offered by KIWODET, which also corresponds to the 57% of the respondents who stated that they do not know the existence and activities done by KIWODET (Table 9). 27% stated that the service was not important.

Table 8: Respondents’ reasons of not using the services of KIWODET

<table>
<thead>
<tr>
<th>Reasons for not using KIWODET’s services</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
<td>72</td>
<td>27.6</td>
</tr>
<tr>
<td>Not good</td>
<td>5</td>
<td>1.9</td>
</tr>
<tr>
<td>Can not afford-expensive</td>
<td>16</td>
<td>6.1</td>
</tr>
<tr>
<td>Not heard of the services</td>
<td>168</td>
<td>64.4</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: survey data 2004.*
About 6% of respondents indicated that they couldn’t afford the fee set for the services. Most of those who were using the services indicated that they are paying on monthly basis but sometimes delay in payments resulting in arrears, which forced them not to pay regularly.

Obviously the results of the survey above shows low community participation and this have been a major challenge for KIWODET’s operation in providing solid waste collection services in the three “mitaas” of Hananasif Ward. It is obvious that sustainability of solid waste collection services depends entirely on the response of the community in using and paying for the services, therefore low participation of the Hananasif ward community puts the survival of KIWODET which is providing solid waste collection services in jeopardy. However there are many reasons for low community participation as pointed above and are various ways to overcome the challenges and therefore increase community participation. But it is important also to note that the reasons and ways to improve community participation are not similar for all communities and community members, they vary depending on the situation and more specifically the root causes of such reasons, each community and community members is unique and need to be addressed separately. Community participation through contributions in cash to the operation of solid waste management services involves regular fee payment for collection. Money is needed to cover capital costs and to cover daily expenses of KIWODET. The fees collection should be able to cover both primary and secondary collection, as
well as pay salaries to the waste collectors and CBO members who are fully engaged in the service provision activities.

Service fee collection is influenced by two issues, that is ability to pay (related to income levels and collection frequently, etc) and willingness to pay that is related to awareness and satisfaction with service levels delivered by the service provider (Cod, A 2001 Unpublished pg32). These both influence the community response to the changing approach of service delivery system in the country. Considering that for a decade the majority of citizens of Tanzania have been enjoying free service especially those involving solid waste management collection, the sudden policy change led to distress that might take longer time to adopt and therefore continuous awareness raising and educational process need to take place to facilitate the change of attitude of the people. Regarding ability to pay, the Kinondoni Municipal by-laws (Appendix C of the bylaws 2000) specify fee levels which are set with the aim of allowing the service provider to cover operating costs and make a profit, while providing customers access to affordable service delivery. The fees were originally set base on research and discussions with service providers and local leaders (in Municipalities). Three income and service levels have been identified for residential premises in all the municipalities in Dar es Salaam. Different fees are set for different types of businesses (a form of cross-subsidization). In reality fees are negotiated at local level base on affordability, volume and type of waste. Local small
service providers are flexible in collecting fees, allowing people to pay in installments and regular intervals to further improve affordability.

Although fees may be affordable, not all customers are willing to pay. Awareness rising is therefore vital to increase willingness to pay, assisted by improvements in service levels and acceptable tariff levels. In Dar-es-Salaam, lack of awareness rising by the city authorities has been cited as a key problem and many service providers are found carrying out this responsibility on their own in order to survive in the business (Ishengoma, 2002, ILO unpublished report pg 25-32).

However educational sensitization in all sense requires financial and human resource. The Municipal Authority whose role rests on their part is constrained by financial as well as human resources. The involvement of community-based group is one way of transferring or more precise sharing some of the Government responsibilities with the community. Thus, the role of sensitization of the community on waste management in Hananasif area rests on KIWODE T so as to facilitate the smooth implementation of the waste collection activities in the area. As with the government, KIWODE T is still a young organization, and faces financial constraints, since the majority of community members are not willing to pay for the service. They have not yet been able to break even in costs they need external assistance in facilitating the sensitization process. This will not only benefit KIWODE T but also the community in Hananasif in terms of improved income to the households and healthy environment.
4.5 HANANASIF COMMUNITY PERCEPTION ON KIWODET’S ACTIVITIES IN THE AREA

About 60% of respondents indicated that they are not aware of activities done by KIWODET (table 9)

Table 9: Respondent’s Knowledge on the existence of KIWODET and its activities

<table>
<thead>
<tr>
<th>Knowledge on existence of KIWODET</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>110</td>
<td>42.1</td>
</tr>
<tr>
<td>No</td>
<td>151</td>
<td>57.9</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: survey data 2004

The results of the survey above clearly indicate that KIWODET has not done enough efforts to sensitize and disseminate the information to the residents on their activities. Normally this has to be done through the local leaders who, through their routine community meetings held on monthly basis are to disseminate the information on the change of system of service delivery and sensitize the community on the full participation and on the by laws involving the environment management. This requires a good linkage and working relation between the CBO, in this case KIWODET, and the local leaders. Also the local leader’s roles in facilitating solid waste management activities in the area must be clarified. This in turn will elevate the motivation of operators and households to participate and will ensure the reliability of the service. Community perception of fees charged for waste collection service is essential because it influences on the willingness to pay. If residents do not trust the service, they refuse to pay. It is also not uncommon that low-income
neighborhoods often face considerable problems; inadequate solid waste management is just one of them and its improvement may not have priority for a community. If solid waste management is not a felt need, this will have consequences for their participation in the service and their willingness to pay.

4.6 FACTORS LIMITING COMMUNITY PARTICIPATION IN SOLID WASTE MANAGEMENT IN HANANASIF

The survey findings (Table 10) shows that local leaders have the opinion that some households are not willing to participate and therefore pay, because they regard KIWODET’s services are poor and need to be improved and the service charge should be reduced.

Table 10: Local Leaders recommendations given to Kiwodet for improvement of the services

<table>
<thead>
<tr>
<th>Local leaders recommendation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase working tools</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>Increase frequency of collection</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Reduce the collection fee</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>None</td>
<td>6</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>86.7</td>
</tr>
<tr>
<td>9.00</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td>15</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data 2004

Also, 20% of the local leaders suggested that the frequency of collection should be increased and the service must be reliable in order to sustain willingness to pay and 13% suggested to reduce the service charge. Willingness to pay is rather a central issue, because it is important for the success of a Community-based solid waste management operation.
Community perception of fees and of the waste collection service is essential for its willingness to pay; some households are not willing to pay, because they think the service is not reliable the collection is irregular.

On the other hand, residents are required to pay per month, and the municipalities fix the rate, this has been a hindrance for many community members to pay regularly. KIWODET are guided by the contractual agreement with the Municipal Authority who has set the waste collection fee system and rates. Since Hananasif is resided by different category of residents, which ranges from low, medium and high income, mode of payment should be looked at and studied to accommodate the wide range of residents of Hananasif. It is therefore important that KIWODET should study different ways of fee collection and payment, which will be suitable for different household according to the level of income/poverty of the community they serve, and propose the same to the municipality. For example KIWODET could explore on the possibility of people who can be served and pay on the spot the fee required. Others may prefer monthly or weekly depending on the income status.

Moreover, 27% of respondents thought that the service was not important (table 7). This is also very crucial as it implies that there is lack of understanding of solid waste issues among the community members and that solid waste issue is not a priority need. To enhance community participation, it is very important that the communities themselves identify the
waste problem as their problem and that; its solution is for their own benefit (Guzon, 1994: 3, 5; Bulle, 1999: 26) Therefore, communication strategies, like awareness-raising campaigns on environmental education, are vital to stimulate community members to participate and to keep the community informed about the solid waste management activities. In this way, the sense of local ownership can be enhanced, meaning that the community feels responsible for the services, like waste collection. When community members see that the activities are for their own benefit and feel responsible for services, they will also show an interest in the follow-up of the service and its continuity (Gozun, 1994: 3, 5; Bulle, 1999: 26).

There are other cases and responses in the survey, which indicated that community refused to pay and or pulled out of the service, because there were no sanctions in case of nonpayment and no legal obligations to pay though by laws states clearly on this. However since most of the community members are not aware of the by laws or even if are aware but they are not enforced, they find no obligation to use and pay for the services. 29% of the respondents indicated that the government should strictly enforce by laws governing solid waste managements, this will eventually increase community participation and therefore improve environment cleanliness. (Table 11)
Table 11: Advice given by community to improve environment services

<table>
<thead>
<tr>
<th>Issue</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add more working equipment</td>
<td>27</td>
<td>10.3</td>
</tr>
<tr>
<td>Build waste collection points r stations</td>
<td>17</td>
<td>6.5</td>
</tr>
<tr>
<td>KIWODET should improve the quality of service by increasing collecting frequency</td>
<td>30</td>
<td>11.5</td>
</tr>
<tr>
<td>Provide storage facilities and improve services</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>None</td>
<td>72</td>
<td>27.6</td>
</tr>
<tr>
<td>Reduce the fee charges</td>
<td>20</td>
<td>7.7</td>
</tr>
<tr>
<td>KIWODET continue with their work</td>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>KIWODET provide known collection timetable</td>
<td>5</td>
<td>1.9</td>
</tr>
<tr>
<td>Government to strictly enforce bylaws</td>
<td>76</td>
<td>29.1</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Survey Data 2004
CHAPTER 5

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

Community participation is fundamental and the only way of solving the waste collection problems especially in low-income areas such as Hananasif Ward. Low community participation has been identified as the major problem and hindrance to the effective performance of solid waste collection activities in the area. Community awareness and willingness to participate are key aspects in any planning and implementation of a programme on alternative waste collection systems, Hananasif community is less willing to participate and the reasons behind the low participation are many including lack of awareness on environmental health related issues and of priority on solid waste management non-enforcement of by- laws governing the waste management in the area, and the low income status of the residents. KIWODET’s concerns have been well justified by the results of the survey.

A possible solution to the problem of lack of community priority for solid waste management is education and sensitization as many community members recommended. Community and their local leaders need to be sensitized on the health consequences of poor environmental management. The current health status of Hananasif community cannot be ignored where 47% of the interviewed community members reported to have suffered malaria and cholera (20%) during the past one month, with the un-
willingness to use the waste collection services offered by KIWODET to keep the environment clean the situation is most likely to worsen in future. Therefore to sustain the solid waste collection services and benefit the entire community, KIWODET is left with a high task to educate and sensitize the community so as to increase their willingness to contribute in the form of ideas, resources and therefore improve their participation. With the current financial constraints, KIWODET need to mobilize external resources to support the initiative.

The role of the government in solid waste management cannot be over-emphasized. Lack of comprehensive national policy and legal framework on environmental management has contributed to a large extent the prevailing situation of non-involvement of community and other waste generators especially in minimizing waste, recovering materials and bearing the responsibilities on the waste they generate. Playing a supervisory role, the government should make sure that the policies are in place and by-laws enforced to facilitate full involvement of all stakeholders in managing the solid waste and the environment at large.

5.2 RECOMMENDATIONS

To facilitate the role played by KIWODET in providing sustainable environmental management services, It is therefore recommended that:

i) KIWODET should study the willingness of community members to pay beforehand to conceive acceptable ways of payment and affordable
fees to accommodate the wide range of community income status residing in Hananasif ward and not strictly follow the by laws and guideline given by municipal authorities for fee payment. For example KIWODET could explore on the possibilities of people who can be served, and pay on the spot the fee required, others may prefer weekly or monthly payments depending on the income status.

ii) The government should continue to facilitate the improvement of solid waste management instead of completely transferring the role to the private sector and civil society organization that are now assisting the government to provide the services. National Policy and legal framework are urgently required to facilitate the waste management process.

iii) Also the government should improve the infrastructures to facilitate solid waste collection activities in the unplanned areas like Hananasif through provision of transfer stations and waste storage facilities within the community vicinity before being transported to the legal dumping area is very important.

iv) The Public Private partnership being promoted and implemented by the government need to be natured through the creation of enabling environment for both parties to work effectively. The communities, the service providers, and the government should have an established understanding with clear division of roles and responsibilities of each.
v) The established by-laws governing the service delivery system should be reviewed, disseminated to the users and implementers and therefore enforced effectively.

vi) The waste collection and payment mechanism should be established and agreed by both parties being the community and the service providers to facilitate smooth service provision and therefore the partnership at large.

vii) To facilitate KIWODET address the critical issues of low community participation a fundraising proposal/strategy need to be developed to carry out the sensitization and environmental education programme to the community of Hananasif
CHAPTER SIX

6.0 IMPLEMENTATION- PROJECT PROPOSAL

6.1 Executive Summary

Project title: Community Based Environmental Health
and Hygiene sensitization and Awareness creation Programme

Contact person: Ms. Mwanaidi Msosa, Chairperson

Proposal submitted by: Kisutu Women Development Trust
(KWODET)

Problem statement: Poor health status of the community caused
by deteriorating environmental situation.

Mission Statement
Achieve Improved livelihood status of residents of the poor unplanned settlement of
Hananasif Ward through community participation in environmental health and
hygiene management.

Target group: 20,000 Women, men and children of three mitaaas
of Kisutu, Mkunguni and Hananasif in Hananasif ward of Kinondoni Municipality in Dar es Salaam.
Activities: Structured towards Community sensitization through Information Education Communication (IEC) materials such as posters and leaflets and workshops as well as performance theatre such as drama and traditional dances.

Outcomes: Community Change of attitude and practice towards issues related to environmental health and hygiene resulting into reduced incidences of Malaria and cholera

Requested funding: Tshs 16,850,000 (Sixteen million eight hundred fifty thousand only)

Own Contribution: Tshs 750,000 (Seven hundred and fifty thousand)
6.2 Project rationale and justification

Since 2000, Kisutu Women Development Trust has been working in Hanasifu ward of Kinondoni Municipality providing environmental services in regard to solid waste management. More than 5000 households (approximately 20,000 people) in the Hanasifu ward have been benefiting from these services. The solid waste management services have not only improved the environmental cleanliness, but also the health status of the community. Few cases of cholera and other related diseases have been reported since the start of the service provision activity in the area as compared to before. However while the environmental health status of the two mitaa of Mkunguni and Kisutu where, KIWODET is providing services has improved, the status of the third mtaa named Hananasifu has been deteriorating day after day. The community-constructed infrastructure of drainage and sanitation systems has been littered by filth and garbage causing blockage and therefore flooding during rain season, which at the end pause health hazards to the community

The study survey done in the year 2004 by the Student of Community Economic Development of the Open University of Dar es salaam indicated that Hananasifu community is not willing to use the waste collection services and one of the reasons behind the low participation include lack of awareness on environmental health and hygiene related issues. The study also indicated that due to this deteriorating environmental situation, 20% of community members who were interviewed had suffered from diarrhea
related diseases and 47% suffered from Malaria for the past one year and many acknowledged that the environmental conditions is the major cause for the catastrophe.

The solid waste collection services provided by KIWODET's has significantly improved women's and children's health in the two "mitaas" however, much effort is still needed to strengthen efforts made so far to improve environmental health status of the area. Community change of attitude and practice towards environmental health issues and management need to be emphasized to improve the situation. This project aims to improve environmental health status of Hananasif ward through improved habits and practices of community members on general health and hygiene issues in relation to environmental management services.

6.3 Organizational experience

Kisutu Women Development Trust Fund (KIWODET) is one few women organized Community Based group officially registered under the Registrar of Societies in the Ministry of Home Affairs. The CBO is well and recognized by the community of Hanansif Ward for a number of development initiatives serving the community. The goal of KIWODET is to improve the health and income status of poor and women managed households (women, & children) in Hananasif ward and to do so in ways that will allow for change to take root, sustain and be enhanced.
KIWODET has experience on sensitizing the community on health issues, by physically taking lead in supervising the management of environmental hygiene and cleanliness of Hananasif Ward for the past six years. Currently KIWODET is providing environmental management services to the three "mitaa' OF Hananasif ward that are; Kisutu, Mkunguni and Hananasif. The Group, which consists of 12 active members, does day-to-day activities of waste collection at the household level to the final disposal. The group also conducts recycling activities of waste product as well as produce composite for gardening to enhance income for the members. For the past three years KIWODET has shared and provided a window for learning the skills in waste collection, recycling and composite making to a number of other community based groups in Dar es Salaam City and specifically in Kinondoni municipality, such as WAMKUTU, JUWAMTOM and VISAUJA groups from Tandale ward, TUGEME women group from Kijitonyama just to mention a few.

Throughout their operation and provision of the solid waste management services to Hananasif ward community members, KIWODET has drawn many lessons and through participatory processes of monitoring and evaluation and have managed to achieve considerable visible and measurable results on the ground. Parts of Hananasif ward surroundings such as KISUTU, and MKUNGUNI "mtaas" have become clearer with improved health status of the residents where as few cases of malaria and cholera have been reported for the past one year.
6.4 **Project Objective(s)**

i) To improve community health and hygiene habits

ii) To increase community participation in environmental management in the unplanned areas of Hanasif ward, Kinondoni Municipality in Dar es Salaam

6.5 **Project Expected results;**

i) Changes in community practices toward solid waste management – storage, & disposal

ii) Improved environmental cleanliness of Hanasif ward

iii) Decrease of Malaria and cholera cases. (see table 14)

6.6 **Project activities**

i) Will include distribution of IEC materials on environmental health promotion

ii) Training of community resource persons in the environmental health issues and Technical knowledge on solid waste management (storage & separation & disposal)

iii) Sensitization of community on environmental health & hygiene issues through cultural dance and drama performances

iv) Provision of waste storage facilities such as waste bins to low income Households and empty space areas/gardens roads

v) Conduct regular cleaning campaigns
vi) Training of Local leaders ("Mitaa" chairpersons and environmental committee members) on their roles and responsibilities in Waste management. This includes knowledge on bylaws and governance issues.

6.7 Performance Assessment

The performance and success of this educational and sensitization programme will be measured through the following indicators;

i) Increase in Number of households using the solid waste collection services.

ii) Cleanliness of environment including drains

iii) Reduced cholera and malaria incidences from the current 20% Malaria cases per month to 10%

iv) Number of Community members doing proper waste storage and separation at source.

v) Local leaders organizing cleaning campaigns regularly and enforcing effectively the solid waste management by-laws.

6.8 Project Implementation Arrangement:

The project will be implemented by KIWODET in collaboration with the Kinondoni Municipal council who will provide support of technical staff such as a health officer, a solicitor, and Community development officer who will be resource persons for the local leaders workshops and provide input to the production of IEC materials. ILO through its programme of Solid Waste
Management will provide technical advice to facilitate the sensitization process.

6.9 Project target beneficiaries

Women, men, and children of Hananasif ward in Kinondoni Municipality, Dar es salaam totaling approximately 20,000.

6.10 Project duration

The programme will be implemented for 24 months, however a sustainability strategy, which will be put in place, will facilitate the continuation of the activities.

6.11 Estimated Project Budget

a) Summary of Budget

The total budget required to undertake the project activities is estimated to be Tsh 17,600,000 (seventeen million six hundred thousand)

Distributed as follows:

i) Amount requested from external assistance is Tsh 16,850,000 (sixteen million eight hundred and fifty thousand)

iii) CBO contribution is Tsh 750,000 (Seven hundred and fifty thousands
b) Detailed description of budget:

Table 12: Budget Activity Matrix

<table>
<thead>
<tr>
<th>S/n</th>
<th>Activity Description</th>
<th>No: of days/items</th>
<th>Cost per day/item (Tsh)</th>
<th>Total costs</th>
<th>Contribution from CBO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Training of local leaders 250 (mabalozi and ward committee members):</td>
<td>3</td>
<td>1,250,000</td>
<td>3,750,000</td>
<td>750,000</td>
</tr>
<tr>
<td></td>
<td>a) Lunch ---2000/=500,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 2 Tea breaks at 2000/= @=500,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Transport costs at 1,000/= @=250,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Training Facilitators (2) One for by laws One for environmental management 50,000/= @ per day</td>
<td>3</td>
<td>100000</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Drama performances thrice a month in three mitaas@60,000 per month(72 days in 24 moths)</td>
<td>72</td>
<td>60,000</td>
<td>4,320,000</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Purchase of waste bins/plastic bags 1500</td>
<td>1500</td>
<td>5,000</td>
<td>7,500,000</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Development and production of posters 5000 pcs @ 350</td>
<td>5000</td>
<td>350</td>
<td>1,750,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL BUDGET</strong></td>
<td></td>
<td></td>
<td>17,600,000</td>
<td>750,000</td>
</tr>
<tr>
<td></td>
<td><strong>AMOUNT REQUESTED FROM EXTERNAL</strong></td>
<td></td>
<td></td>
<td>16,850,000</td>
<td></td>
</tr>
</tbody>
</table>
6.12 Logical framework Analysis

Table 13: Logical Framework.

<table>
<thead>
<tr>
<th>Beneficiaries:</th>
<th>5000 Households of Hananasif ward, Kinondoni Municipality, Dar es salaam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project title:</td>
<td>Community Based Environmental Health &amp; Hygiene Education programme.</td>
</tr>
<tr>
<td>Project duration:</td>
<td>2 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Structure</th>
<th>Progress Indicators</th>
<th>Means of Verification</th>
<th>Assumptions, hypothesis and risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate objective</td>
<td>Improved Health and hygiene practices through increased community participation in environmental</td>
<td>Monitoring and evaluation report from Municipal authorities and local leaders</td>
<td>Political willingness and support of the local leaders to facilitate the enforcement of by laws for defaulters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Outputs

<table>
<thead>
<tr>
<th>1) Monthly cleaning campaigns organized and conducted regularly</th>
<th>Waste.</th>
<th>Report from local leaders at ward level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community participating in cleaning campaigns.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2) Information and knowledge on environmental Health and hygiene disseminated to the community members.</th>
<th></th>
<th>CBO report, Local leaders reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC materials for promotion purpose developed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posters, with promotional messages are produced and distributed to the community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural groups performing drama and dances with relevant hygiene messages to the community.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3) Training conducted to Local leaders on their roles and governess issues as well as knowledge on by laws governing waste management</th>
<th></th>
<th>Political will of the local leaders to support</th>
</tr>
</thead>
<tbody>
<tr>
<td>243 Mtaa chairpersons and ward committee members have knowledge on their roles and existing by – laws</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local leaders facilitate the monthly cleaning campaigns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local leaders enforce</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7.0 OTHER ACTIVITIES ACCOMPLISHED BY THE CED STUDENT

i) Facilitate to establish Small committees within the CBO management to work on pertaining issues and facilitate operation efficiency and effectiveness. One committee named Financial Mobilization is geared to look at the strategies to improve and supervise fee collection, external funds mobilization and the second committees is Named Operation and services which is geared to improve the operation efficiency by doing ground supervision as well equipment maintenance. The two committees have started operating and have contributed to full participation of all members at all level avoiding a "one man show" which has been prevailing for sometime.

ii) Identified persons to be invited as members of the Advisory committee for the CBO. Terms of references are being developed with assistance of the CED student.
iii) External auditor is being sought to look into the finances and establish proper record keeping for the CBO after recommendations from the CED student.

iv) Has identified potentate donors for submission of the developed Concept note for Fund raising to carry out the community sensitization and educational programmed. Donors such as; The Civil Society Foundation, The SIDA and Germany Embassy have shown interest to fund areas of environmental management thus could provide potential financial assistance to KIWODET.
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