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Environmental Engineering

Final thesis

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**ENVIRONMENTAL MANAGEMENT AND PARTICIPATORY PLANNING AT
THE WARD LEVEL - CASE STUDY IN THE CITY OF MWANZA, TANZANIA**

Supervisor

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Commissioned by

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ABSTRACT

This case study was conducted to get more understanding about the environmental management, local governance, as well as participatory planning and views on local environmental problems in the City of Mwanza. In environmental issues Tampere - Mwanza Local Governance Cooperation Project is working in cooperation with TAMK University of Applied Sciences which is annually sending students for field practical to Mwanza. Increased knowledge helps in the process of planning and preparation for the future activities in environmental cooperation. This study was carried out in the City of Mwanza during three months from April to the beginning of July 2008. Main source of information were interviews with local governance authorities in wards and at the city council level. Also written material such as development plans and other documents were used. Most of the environmental challenges are local and present at the neighbourhood and household level. They are mostly related to poor sanitation and waste management, lack of awareness on environmental issues and lack of infrastructure especially at the unplanned hillside settlements surrounding the city. There is a need for training the local government leaders on environmental issues and by-laws in order to give them more skills to tackle the problems and further increase the awareness of the citizen at the grass-root level.

Tampereen Ammattikorkeakoulu
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TIIVISTELMÄ

Tämän tutkimuksen tarkoituksena oli kartoittaa Mwanzan paikallishallinnon rakennetta ja ympäristöasioiden koordinaatiota kaupunginosatasolla, sekä perehtyä osallistavan suunnittelun menetelmiin ja ihmisten ajatuksiin paikallisista ympäristöongelmista. Tampere-Mwanza yhteistyöprojektin yhtenä osa-alueena ovat ympäristöasiat, joiden puitteissa Tampereen Ammattikorkeakoulu tekee yhteistyötä lähettämällä vuosittain opiskelijoita harjoitteluun Mwanzaan. Parempi tietämys Mwanzan ympäristöhallinnosta auttaa harjoitteluprojektien ja muiden projektin aktiviteettien suunnittelussa. Tutkimus toteutettiin Mwanzan kaupungissa huhtikuusta heinäkuun alkuun sijoittuvalla ajanjaksolla vuonna 2008. Suurin osa materiaalista kerättiin haastattelemalla paikallishallinnon virkamiehiä kaupunginosatasolla ja kaupunginhallinnon eri osastoissa, sekä perehtymällä kirjalliseen aineistoon. Pääosa esille nousseista ympäristöongelmista on paikallisia ja liittyy puutteelliseen sanitaatioon, jätehuoltoon ja infrastruktuuriin sekä puutteelliseen tietoisuuteen ympäristöasioista. Tutkimuksessa nousi esille tarve kouluttaa paikallishallinnon virkamiehiä ja paikallisjohtajia ympäristöasioissa, jotta heillä olisi paremmat resurssit valistaa kansalaisia ruohonjuuritasolla.

FOREWORD

The process of making this study started already in 2006 when I first time went to Mwanza to do my field practical related to waste management. I returned in Mwanza in 2007 when my field practical was concentrating more on water issues and Lake Victoria. During my stay I got the chance to see and experience many of the environmental issues which are present in the City of Mwanza. I got an idea that it would be important to find out more about those issues and share the information with other people who are working with the Tampere-Mwanza Local Governance Cooperation Project as it could be useful in improving the cooperation even further.

First of all I want to thank all the interviewed people for the cooperation and time they gave as well as their positive attitude towards the study. As the study is done anonymously I will not reveal their names, but I really appreciate all the assistance I received during the process. I am thankful for Tampere-Mwanza Local Governance Cooperation Project and the project coordinators Riikka Juuma and Reuben Sixbert for facilitating my stay in Mwanza, and TAMK University of Applied Sciences for support and giving me the opportunity to carry out my practical training and final thesis study in Tanzania. I also want to thank Maa- ja vesitekniiikan tuki ry (MVTT) for the financial support I received for implementing the study.

Additionally I want to thank people who, during the times I have stayed in Mwanza, have given me ideas and perspective related to the environmental issues and showed how things often have more than one side. I also want to thank George Matovu for assisting me with translations and Seela Sinisalo for her comments. Last, I want to thank my family and friends for all the support I have received during the course of my studies and Jabula for believing in me.

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Venla Pesonen

LIST OF ABBREVIATIONS

CBD	central business district
CBO	community based organization
CCHP	comprehensive council health plan
EMA	Environmental Management Act, 2004
MEO	mtaa executive officer (mtaa means neighborhood in Swahili)
NGO	non-governmental organization
O&OD	opportunities and obstacles to development plan
UDEM	urban development and environmental management
WDC	ward development committee
WEO	ward executive officer
Currency	
1 EURO	~2000 Tanzanian shillings (Tsh)

TABLE OF CONTENTS

ABSTRACT

TIIVISTELMÄ

FOREWORD

LIST OF ABBREVIATIONS

TABLE OF CONTENTS.....	6
1 INTRODUCTION	8
2 INFORMATION OF THE CITY OF MWANZA.....	9
2.1 General information	9
2.2 Administration	11
2.3 Tampere-Mwanza local governance cooperation project	13
3 STUDY METHODS	15
3.1 Definition of terms	15
3.2 Focus of the study	16
3.3 Data collection methods.....	17
3.2 List of the people interviewed.....	19
4 STRUCTURE OF THE LOCAL GOVERNANCE IN THE WARDS	20
4.1 Ward executive officers (WEO)	20
4.2 Ward development committee (WDC)	20
4.3 Neighbourhood chairpersons	21
4.4 Ten-cell leaders	22
4.5 Committees in the neighbourhoods	22
4.6 Mtaa executive officers (MEO)	23
5 ENVIRONMENTAL MANAGEMENT	25
5.1 Urban planning, tourism and environment department	25
5.1.1 Environmental management officer.....	25
5.1.2 The urban planning committee	27
5.1.3 Urban Development Environmental Management (UDEM) framework	27
5.1.4 Implementation of UDEM at Mwanza	27

5.2 Health and cleansing department	29
5.2.1 Ward health officers	29
6 ENVIRONMENTAL CHALLENGES IN THE CITY OF MWANZA	31
6.1 Solid waste management	33
6.2 Sanitation	37
6.3 Drinking water supply	43
6.4 Other environmental issues	45
6.5 Comments	47
7 PUBLIC PARTICIPATION AND PARTICIPATORY PLANNING	49
7.1 Public participation through meetings	49
7.2 Opportunities and obstacles to development (O&OD) planning process	51
7.2.1 Historical perspective and definition	51
7.2.2 O&OD planning in Mwanza	52
7.2.3 The urban process of preparing the O&OD plans	53
7.2.4 Examples of the O&OD plans in the wards for 2008-2011	55
7.2.5 Views on the O&OD plans	56
8 ENVIRONMENTAL PROJECTS	59
9 DISCUSSION	62
10 CONCLUSIONS	68
10.1 Tampere-Mwanza local governance cooperation project	68
10.2 City of Mwanza	69
REFERENCES	71

APPENDICES

Appendix 1	Questions for the interviews
Appendix 2	Tanzania Development Vision 2025 targets
Appendix 3	Photos from the City of Mwanza
Appendix 4	Examples of O&OD plans for 2008-2011 in the City of Mwanza

1 INTRODUCTION

The study was conducted in the City of Mwanza during three months from April to the beginning of July 2008. The purpose was to study the environmental management governance at the ward level and in the quarters responsible. Additionally information about participatory planning and people's views about environmental challenges and environmental project ideas were studied. Most of the information was gathered by interviewing local government authorities in four chosen wards and some people at the city council level. The aim of the thesis is to give better understanding of environmental issues touching the community in the City of Mwanza for the people working with the Tampere-Mwanza Local Governance Cooperation Project, in Tampere as well as in Mwanza.

Chapter 2 gives a brief introduction to the geography, location and administrative structure of the City of Mwanza and gives insight to the Tampere-Mwanza Local Governance Cooperation Program existing between the cities. Chapter 3 defines the terms and study methods. Chapters 4 - 8 deal more in detail with the results of the study and analyze the collected data. Chapter 4 defines the local governance authorities at the ward level and chapter 5 looks more closely the departments and responsible persons dealing with environmental issues in the community. Chapter 6 concentrates on some the environmental challenges facing the city of Mwanza and chapter 7 gives insight to the participatory planning methods used at the community level. Chapter 8 looks at some ideas for environmental projects given by the interviewees. Chapters 9 and 10 are discussion and conclusions including some recommendations to the cooperation project as well as to the city of Mwanza.

2 INFORMATION OF THE CITY OF MWANZA

2.1 General information

Mwanza City is the second largest city in Tanzania located at the southern shores of Lake Victoria between the latitudes $2^{\circ}15'$ - $2^{\circ}45'$ South of the Equator and longitudes $32^{\circ}45'$ - $33^{\circ}00'$ East. It is situated at an altitude of 1,140 meters from the sea level and covers an area of about 1325km^2 , of which circa 900km^2 is water (mostly Lake Victoria) and 425km^2 is dry land. /7/



Figure 1. Map of Tanzania showing the neighbouring countries and main cities and towns. /15/

The City of Mwanza is characterized by massive granites and granodiorite which cover the undulating hills surrounding the city. The soil type is mainly sandy loam. The annual rainfall varies between 700mm and 1000mm and the city experiences two rain seasons; longer during February-May and shorter during October-December. The vegetation is typical savannah with tall trees and grasses. The average temperature in hot season ranges between 25 °C and 30°C and during the cooler months may sometimes go as down as 15 °C. /7/

Due to its strategic location on the shores of Lake Victoria, Mwanza City is an important industrial, commercial and service centre in the lake zone area and has waterway connection to Uganda and Kenya as well as transportation network with neighbouring countries Democratic republic of Congo, Rwanda and Burundi. This is one of the reasons for the continuous migration of people from other nearby districts and regions to Mwanza. /6/

In the 2002 National Census the population of Mwanza was 476,646 inhabitants. Based on the current estimation of annual population growth rate of 11.3% of which about 3.2% is natural growth and 8.1% rural to urban migration, the estimated population is 741,060 (2007). The number may anyhow be even higher as the actual size of population is difficult to be estimated. Compared to the national rate of urbanization which according to 2005 estimate is 4.3% and national population rate of 2.9% it can be noticed that in Mwanza these rates are much higher. The main economical activities are fishing, farming, trade, commerce and industries. The average per capita income is estimate to be US\$ 21. /7/ /17/

2.2 Administration

The city comprises of two districts which are Nyamagana and Ilemela and is divided into 21 wards, 19 registered villages and 523 neighbourhoods.

The Ilemela district has nine wards; Sangabuye, Bugogwa, Ilemela, Buswelu (rural wards), Pasiansi, Kitangiri, Nyamanoro, Kirumba and Nyakato (urban and semi-urban wards). The Nyamagana district comprises of twelve wards; Butimba, Mkuyuni, Igogo, Pamba, Nyamagana, Isamilo, Mbugani, Mirongo (urban), Igoma, Mahina, Buhongwa and Mkolani (semi-rural and rural). See figure 2 for map of the City of Mwanza. /6/

The City Council is run by the councillors under the leadership of city Lord Mayor. The City Director takes care of the day-to-day administration activities in the city assisted by the heads of departments. At the ward level ward executive officers work under the city director and take care of the administration together with other experts from the departments. /7/

The city has nine (9) departments which are: Economics and trade, Finance, Engineering , Urban planning, tourism and environment; Community development, Administration and human resources, Health and cleansing, Cooperative marketing and agriculture, Education and culture. Additionally there are two units, Internal auditing and legal services, which are advisory to the city director. /7/

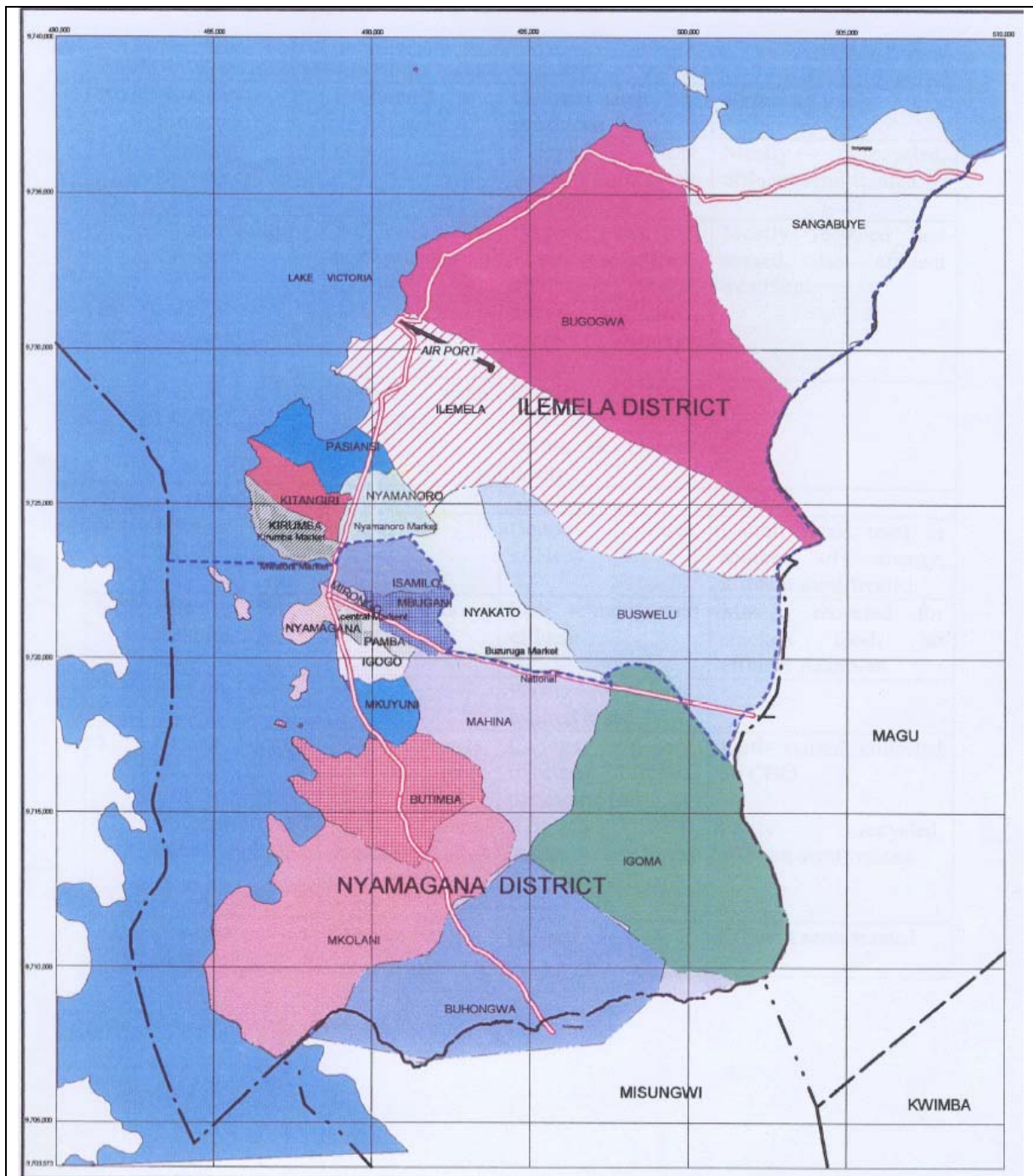


Figure 2. Map of the City of Mwanza showing the Ilemela and Nyamagana districts and ward boundaries. /1/

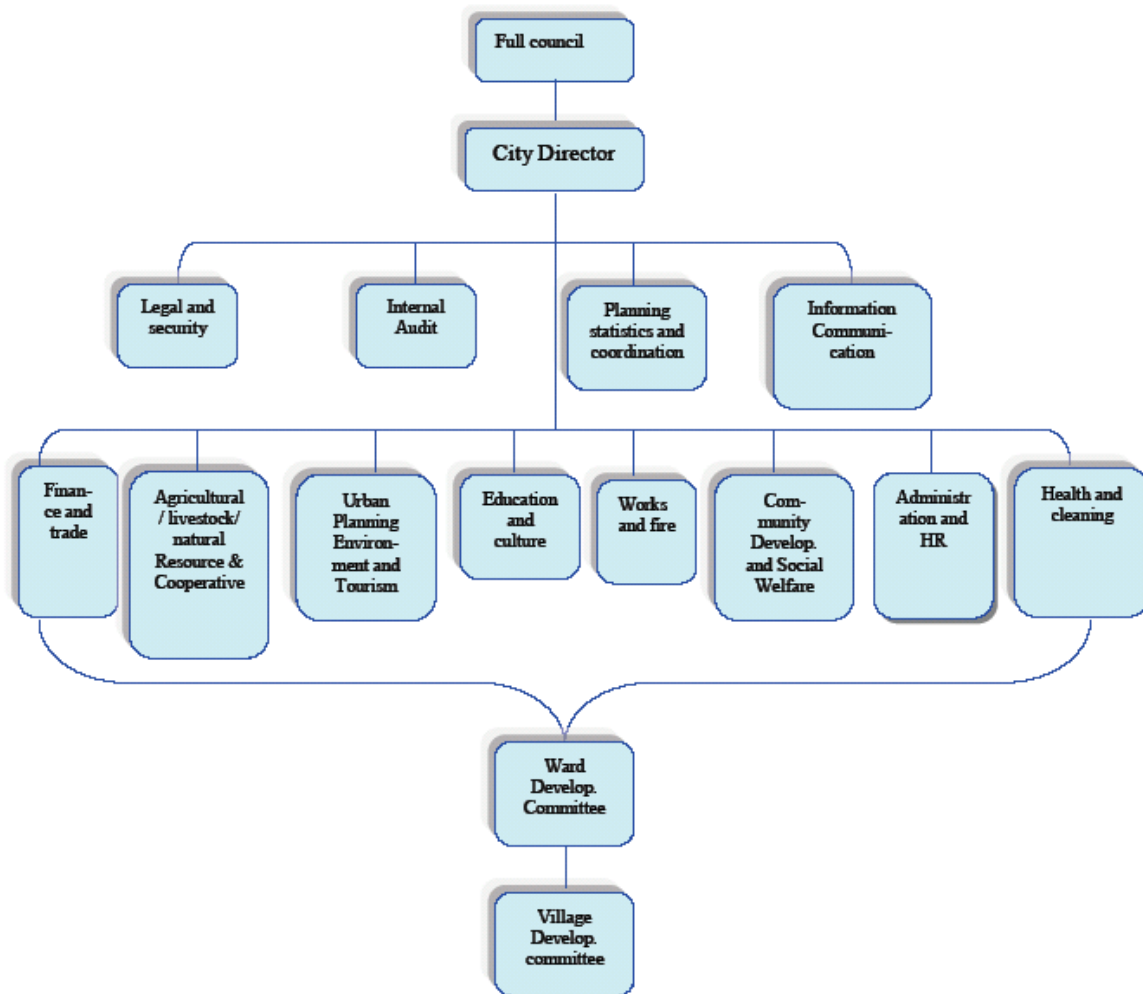


Figure 3. The organizational structure of Mwanza City Council. /11/

2.3 Tampere-Mwanza local governance cooperation project

The City of Mwanza and City of Tampere have had cooperation since the 1980s, but the cooperation under the North-South Local Governance Cooperation Programme has been operating since 2002. The overall aims of the project are capacity building by training municipal officials, enhancing democracy, improving environmental management and increasing mutual understanding through cultural

exchange. There has been cooperation between the cities in different sectors including schools, fire services, city council and environmental sectors. Waste management and environmental conservation in the City of Mwanza are two of the nine components which the project is concentrating on. During the recent years TAMK University of Applied Sciences located in the City of Tampere has been active in the environmental cooperation within the project especially related to waste management. /12/

The nine components under the cooperation project are:

1. Fire brigade cooperation
2. Teachers' training and school cooperation
3. ICT-training
4. Museum cooperation
5. Councilors' cooperation
6. Youth cooperation
7. Democracy training in ward level
8. Waste management
9. Environmental conservation

Currently the most active sectors are fire brigade cooperation, councilors' cooperation, training of civil servants which is included in ICT-training, as well as school and environmental cooperation. /12/

3 STUDY METHODS

In this chapter the terms used and the study methods are defined more in detail.

3.1 Definition of terms

When talking about environmental management and public participation it is important to define the terms used. A variety of definitions are available, but in this study the following definitions are used.

The Environmental Management Act 2004 of Tanzania defines environment as follows; *“environment includes the physical factors of the surrounding of human beings including air, land, water, climate, sound, light, odour, taste, micro-organisms, the biological factors of animals and plants, cultural resources and the social economic factor of aesthetics and includes both the natural and the built environment and the way they interact”*. This definition is rather wide, but valid as the environmental issues often cannot be separated from the socio-economical factors in the society. /13/

The term environmental management is defined the Environmental Management Act 2004 as follows: *“environmental management includes the protection, conservation and sustainable use of various elements or components of the environment”*. Environmental management should be practiced by everyone in the community but needs sectors to coordinate and control the practices. /13/

Sandi and Teittinen (2006) in their study on local democracy define the participation as *“participation in which the community is involved in the planning process for development that includes identifying community problems and resources, setting priorities and implementation plans as well as monitoring and*

evaluating implementation.” Participatory planning gives more roles to the community by using methods which involve the people in decision making and in the process the community is assisted to discuss about issues and consult each other. /11/ /16/

3.2 Focus of the study

A study on Local Democracy which mainly concentrated on Mwanza was done by Jane Sandi and Outi Teittinen and published under the Tampere-Mwanza local governance cooperation project in 2006. The study gives an overview to the decision making system and public participation in the City of Mwanza. The study also mentions the planning methodology called ‘Opportunities and obstacles to development (O&OD)’ but does not explain it further. Since 2006 TAMK University of Applied Sciences has been sending environmental engineering students in the City of Mwanza to do field practical related to waste management issues. It was anyhow seen that in order to make the cooperation more efficient, more information about environmental management and activities of local actors would be needed, for the students and personnel as well as the other people working with the cooperation project. Thus the idea to make a case study about environmental management and local governance concentrating at the ward level emerged. The project also wanted to have more information about the participatory planning, especially O&OD planning method, so this was included in the study as well. /11/ /12/

The city of Mwanza comprises of twenty-one (21) wards but because of the time frame and extent of the study only four (4) wards were chosen for closer review. Two of the wards (Kirumba and Isamilo) are located rather close to the central business district (CBD) and are described as urban, while the two remaining

(Ilemela and Igoma) are described as semi-rural and are located further from the city center area. Description of studied ward is presented in a table 1.

Table 1. Description of the studied wards.

Ward	Type	Number of neighbourhoods	Number of zones	District
Ilemela	Semi-rural	27	3	Ilemela
Igoma	Semi-rural	41	4	Nyamagana
Kirumba	Urban	17	4	Ilemela
Isamilo	Urban	24	6	Nyamagana

Source: /5/

3.3 Data collection methods

As one purpose of the study was to get understanding of the local governance at the ward level, from each studied ward the ward executive officer (WEO), mtaa executive officer (MEO) (mtaa means neighbourhood in Swahili), two neighbourhood chairpersons and ward health officer were interviewed. In Ilemela ward the WEO was not present at the time of interview so he was not interviewed. The mtaa executive officers and neighbourhood chairpersons were contacted by the ward officers and usually the ones which were available and willing to take part to the interview were interviewed. Additionally, to get perspective and opinions from the city council level the city environmental management officer, city health officer, city urban planning officer, town planner coordinating UDEM framework and city economist coordinating the O&OD planning process were interviewed. To gain more information about the operation of community based organizations (CBOs) collecting the waste, some members of two waste collection CBOs were also interviewed in a group interview.

Most of the information analyzed and presented in this study was collected using focused interviews, a qualitative research method described by Martin Brett Davies

(2007). There was a list of topics (Appendix 1) which were discussed during the interview, but the interviewees were also able to share and add their views on other issues which were emerging from the topics. This allowed getting more information also on issues which were not thought initially, but which turned out to be important. This method was especially used in wards. The Tanzanian culture is very talkative and it was seen important to create an atmosphere where the interviewees felt free to talk. This also happened and the interviews were flowing naturally. Time used for each interview varied from one to two hours depending on the time which the interviewee could use. /2/

The interviews with city council officials were mainly done to get general information about the activities and responsibilities of the departments. In case of UDEM framework and O&OD planning the coordinators were asked about the activities and methodologies used and the interview was open. All interviews were conducted using English and Swahili language and no translators were used. The interviews were recorded using a digital voice recorder with the approval of the interviewees. The topics and questions used in the ward interviews can be found in appendix 1.

Additional information was collected analyzing the written material, such as documents about O&OD planning methodology and the O&OD plans on the City of Mwanza for 2008-2011, Mwanza city profile and environmental profile as well as some documents available in the internet.

Even though this study concentrated only on four wards, many of the results which came up can be used in describing the situation in the City of Mwanza more generally. This is because the local governance structure and used methods in planning are found in all of the wards and many of the environmental challenges are present around the whole city.

3.2 List of the people interviewed

The list of people who were interviewed is presented in the table 2. Because of the privacy no names are published, but only the areas of responsibility.

Table 2. List of people interviewed and their operational areas

People from the wards	
Igoma ward	Isamilo ward
Ward Executive Officer (WEO)	Ward Executive Officer (acting)
Mtaa Executive officer (MEO)	Mtaa Executive officer (MEO)
Neighbourhood chairperson	Neighbourhood chairperson
Neighbourhood chairperson	Neighbourhood chairperson
Ward health officer	Ward health officer
Kirumba ward	Ilemela ward
Ward Executive Officer (WEO)	Mtaa Executive officer (MEO)
Mtaa Executive officer (MEO)	Neighbourhood chairperson
Neighbourhood chairperson	Neighbourhood chairperson
Neighbourhood chairperson	Ward health officer
Ward health officer	
People from the City Council	
Work title	Department
City environmental management officer	Urban planning, tourism and environment
City urban planning officer	Urban planning, tourism and environment
Town planner/coordinator of UDEM	Urban planning, tourism and environment
City health officer	Health and cleansing
City economist/coordinator of O&OD	Economics
People from the CBOs	
Title (number of interviewees)	Name of the CBO
Member (3)	E.T.I.A
Member (2)	Q.E.D.

4 STRUCTURE OF THE LOCAL GOVERNANCE IN THE WARDS

4.1 Ward executive officers (WEO)

Ward executive officer (WEO) is the leader of the ward and is responsible of maintaining peace and security in the ward, taking care of the development and acting as a link and representative between the local government and central government. WEO is also coordinating all the departments at the ward level and acting as a chairperson of the ward security committee as well as the secretary of the ward development committee.

4.2 Ward development committee (WDC)

Each ward has a ward development committee (WDC) which is the highest decision making body in the ward. WDC is chaired by the ward councillor who is elected from the area by the citizens. Other members in the committee are neighbourhood chairpersons who represent the people in their neighbourhood, civil servants such as officers working in the ward, mtaa executive officers and sometimes other important people such as head teachers from the schools or ward police. The WDC meetings are usually held four times per year. The agenda is prepared beforehand by the sub-committees whose members consist of the neighbourhood chairpersons and civil servants. During the meeting the committee members discuss on the issues which are at present taking place in the ward, development plans coming from the neighbourhood as well as hear the plans and issues coming from the city council.

According to the interviewees the amount of direct funds that ward gets from the city council is only 500,000Tsh (c.a. 250 euros) in every 3 months. The amount is

fixed and does not depend on the size of the ward. The money is to be used mainly for office stationeries and paying the allowance for the members of WDC. In theory part of it could also be used for instance by the civil servants for projects in the community, such as health education by the health officer, but usually the funds are inadequate for such activities. When the wards have development projects, most of the funds come directly from the city council, which for instance makes a contract directly with an operator.

4.3 Neighbourhood chairpersons

Each ward is divided into neighbourhoods (in Swahili called mtaa) depending on the size and population of the ward. In the studied wards, the amount of neighbourhood ranged from the lowest 17 (Kirumba) to the highest 41 (Igoma). Each neighbourhood has a chairperson chosen in the elections held in the neighbourhood once in every five years. According to the interviewees the system of the neighbourhood chairpersons was initiated in 1995 to increase the decision making and participation at the community level. The next elections are going to be held in the end on 2009.

Main tasks of the chairperson are to maintain the peace and security in the neighbourhood, solve difficulties of people and make sure everyone has their rights, preserve the documents of the meetings and supervise the development projects. They also collect community contributions from the households which are directed to the development projects such as school building. Chairperson acts as a joint between the grass-root society and the government and is responsible of reporting of the needs and problems of the people and collecting various data for the councilor, ward officers and to the city council as well as bringing information from the city and ward level down to the society.

The chairpersons do not get a salary for the tasks they perform as they are not directly employed by the government. Many of them have an occupation or own business they do along with the chairperson activities. They do get a sitting allowance in the WDC meetings and as a compensation get a small share of the money that city collects as property tax, licenses and rent of property (called councils own sources). They should be paid compensation after every three months but this depends on the availability of funds. According to the interviewed chairpersons they have not received any booklet or seminar about the specific tasks of the chairman during the last period which started in the end of 2004. Thus every chairperson has his/her own way of carrying out the activities.

4.4 Ten-cell leaders

In Tanzania exists also a system of ten-cell leaders (balozi). It is a political system in which the whole country is divided into cells of ten houses and each cell has a leader who is a representative of the political party. Balozi is dealing with political issues but also looking at the well-being of the people. Even though balozi is more of a political figure, he/she is also cooperating with neighbourhood chairpersons by passing the information and reporting of the issues taking place in his/her area, as came up during the interviews. The size of the neighbourhood may be very large and contain even more than 2000 people, and thus it would be difficult for the chairperson alone to be aware of all issues taking place in the area.

4.5 Committees in the neighbourhoods

The neighbourhood committee which usually consists of five (5) members and the chairman is taking care of various issues at the neighbourhood. Some of the chairpersons said that they organize neighbourhood tribunals to solve the cases of

people who have disagreements and they are also responsible of preparing the agenda before the public meetings. Often the ten-cell leaders also take part in the preparations as they are aware of the issues in their areas.

There are also other committees operating at the neighbourhood level but the amount depends on the activeness in the society. Some examples of the committees are; security and safety committee (Kamati ya ulinzi na usalama), health and environmental committee (Kamati ya afya na mazingira), committee of community development (Kamati ya maendeleo wa jamii), school committee (Kamati ya shule) and committee dealing with most vulnerable children (Kamati ya MVC). The amount of committees varies from neighbourhood to neighbourhood, but usually in each neighbourhood are at least the security and school committee. Usually committees have five members and a chairperson which may be the neighbourhood chairperson or chosen among the members. As the members work voluntarily, the actual activities depend on their motivation. According to the interviews in some cases it is anyhow possible that the committee exists only on paper as the members disagree to do activities without compensation. According to the government the committees should meet monthly and submit the report to the ward so that the development and possible problems could be known also at the ward and city level.

4.6 Mtaa executive officers (MEO)

The government started to employ the mtaa executive officers (MEO) to work in the wards since the end on 2005, but more effectively in 2006 and 2007. The MEOs are working in between the ward and the neighbourhood. Based on the collected data currently in Mwanza there are 84 MEOs working in 21 wards, with more than 500 neighbourhoods under their authority. The idea is that each MEO would be responsible of one neighbourhood only but due to the deficit this is not currently possible. The neighbourhoods are divided into zones, where the amount depends on

the size and geographical location. Usually one MEO takes care of one zone. Sometimes this may mean that he/she is responsible of only 2 large neighbourhoods, sometimes even more than ten smaller ones. It is clear that in that case the MEOs are not able to carry out activities in each neighbourhood as well as they would like to. Especially as MEOs do not have an office in the neighbourhood, but use the ward office, it can sometimes be challenging for them to be familiar with the society as some of the neighbourhoods are located far from the office. These issues came up during many of the interviews.

The position of MEOs is still quite new to people and their role does not seem to be fully understood in the society. As they are employed by the government they have more power to take action compared to the neighbourhood chairpersons who are elected by the people. The main task of the MEO are supervising the implementation of development projects, policies of city council and by-laws at the neighbourhood, inform the people about the issues coming from the city level as well as supervising the collection of revenues and taxes. MEO should also be secretary of the neighbourhood meetings and accountant in the neighbourhood committee.

As it can be noticed, many of the activities are similar with the neighbourhood chairpersons and this has created conflicts as the roles of both parties are not very clear. According to the interviewees the same problem is present also in other than the studied wards. The neighbourhood chairpersons as well as MEOs have requested the city director to organize a seminar where the WEOs, MEOs and neighbourhood chairpersons from all 21 wards would be invited and the activities of each party would be made clear. The activity is still waiting for implementation. The interviewees were positive that the seminar would improve the cooperation which currently does not seem to be so good between some of the chairpersons and other officers in the ward level.

As one of the components under the Tampere-Mwanza Local Governance Cooperation Project is democracy training in ward level, this could be one of the issues where the project could cooperate. When the tasks of each party would be made clearer, it can be assumed that the work would also become more effective.

5 ENVIRONMENTAL MANAGEMENT

There are two departments which are mostly dealing with environmental issues in the City of Mwanza; those are health and cleansing department and urban planning, tourism and environment department.

5.1 Urban planning, tourism and environment department

The department of urban planning, tourism and environment is headed by the city urban planning officer. The department has different sections such as urban planning, lands, surveying and mapping, tourism, environment and evaluation. For instance in the preparation of surveyed plots all the sections take part in the preparation. The urban planning department coordinates the national framework of Urban Development and Environmental Management which will be discussed more in detail further in the text.

5.1.1 Environmental management officer

The urban planning department has a section of environment which has been operating few years but has not had a specially appointed person until the beginning of 2008, when the position of City Environmental Management Officer was initiated. Currently he is also working partly under the health department thus creating a link between the two departments. During the interview the

environmental management officer claimed that as the position of environmental management officer is new even nationwide, all the tasks and areas of responsibility are not very clear, even for employees of the city council, not to mention the other stakeholders. Thus there are plans to organize meetings with stakeholders and leaders in ward and neighbourhood level in order to increase the awareness in environmental issues and introduce the new position of city environmental management officer.

According to the Environmental Management act, 2004 (EMA 2004) of Tanzania the tasks of City Environmental Management Officer include the enforcement of the EMA, promotion of environmental awareness, collection of information related to the environment, preparation of reports, review of environmental related by-laws and monitor, review and approval of the environmental impact assessment (EIA) for local investments. According to the city environmental management officer he has prepared a draft environmental strategic plan and has plans to make the industrial environmental profile of the industries in the city of Mwanza. He states that one of the main problems is low awareness which should be increased in all levels of the society, from the grass root to the top level decision makers. As the environment is not having priority, the sector also receives small share of funds and does not have enough experts. /13/

As the implementation of EMA is a slow process, and the training for the officers has started only in 2008, finding of the role takes time. One example of this is that currently the Environmental Management Officer is operating alone in the environmental section. The Act is anyhow a good step on the way of increasing the awareness and improving the state of the environment locally as well as in national level cannot be expected that the changes will take place very fast.

5.1.2 The urban planning committee

The urban planning committee which operates under the urban planning department consists of 10 councillors and 15 professionals from different departments and sections. The committee meets quarterly and discusses various issues related to urban development, plans, land issues, and environmental issues such as cases where people have been illegally excavating sand. The committee is also responsible of approving the plans such as the layout plan, before they are sent for final approval to the ministry.

5.1.3 Urban Development Environmental Management (UDEM) framework

Urban Development and Environmental Management (UDEM) framework is a nationwide program which is a continuation of the Sustainable Cities Program. The idea is to improve the state of the urban environment by projects which involve different departments and stakeholders and activate the local government authorities. Main funding for the projects come through the Local Government Capital Development Grant (LGCDG) which gets funding mainly from the World Bank and some international donors. /16/

5.1.4 Implementation of UDEM at Mwanza

In the City of Mwanza the coordination of UDEM projects falls under the department of urban planning, tourism and environment, but the implementation of activities is done in cooperation with other departments. In the fiscal year 2007 the funding was applied for various projects dealing with street lighting, capacity building, open spaces, upgrading of unplanned settlements and tree planting in the urban areas, but the actual funding was received only for street lighting and

capacity building. According to the coordinator the plan for the fiscal year 2008 is to continue with the plans which were not implemented during previous year but funding has also been applied for preparation of industrial environmental profile (by environmental management officer) and upgrading of unplanned settlements. As the funding for UDEM is not very reliable, for example the upgrading of unplanned settlements is currently done with the money from own sources under the urban planning department.

The upgrading (also called regularization) of unplanned settlements is important as estimated 70% of people live in unplanned areas. In practice this means that many of the areas have poor road connections, inadequate sanitation and waste management and many other problems. When the area is not surveyed residents do not legally own the plot and they are not able to put their house/land as mortgage, which complicates and even restricts them from getting loans.

The upgrading is a process which begins from the wishes of the community. The process starts when the neighbourhood applies the urban planning department for the regularization of their area. There are a lot of neighbourhoods which sent the application, but the process is slow and only one area is done at the time, which means that it may take a long time before application is processed. The next step is that people from the urban planning department, mainly town planners go to the site and hold a public meeting where they inform and educate people about the meaning of regularization. Within the neighbourhood there should be plots which can be used for building e.g. roads, primary schools and dispensaries. The town planners also estimate if the upgrading is really possible, as sometimes the area may already be too packed, or have too steep hills. Usually the residents are asked to form a CBO as it will make the communication between to community and the department easier.

After the residents have agreed to the regularization the town planners are preparing the layout plan which shows how the plots are arranged based on the aerial views of the city. When the citizens approve the layout plan it is sent to the urban planning committee for approval and after there to the Ministry of Lands, housing and human development for the final approval. After approval of the layout plan at all levels, the residents of the neighbourhood are able to ask for the surveying of their plots, which is also a time consuming process.

The coordinator estimated that the process of upgrading from the moment of first meetings up to the finalizing of the layout plan may take even a year. This means that together with surveying the whole process may take even 2 years. The slow pace is due to the fact that there are only three town planners working full-time and all of them work together at one project at the time. Thus only one area can be upgraded at once. The preparation of the layout plan does not anyhow require that people would have their plots surveyed immediately, for example if they do not have enough funds to do it they can do it later.

5.2 Health and cleansing department

In the health and cleansing department the preventive health section directed by the city health officer is responsible of issues such as waste management, water and sanitation, malaria, infectious disease and food quality control, occupational health, reproductive and child health as well as health education. /9/

5.2.1 Ward health officers

Ward health officers together with other officers such as livestock and agriculture, education or community development officers are the representatives of their

departments in the ward level. Health officers are in charge of all issues concerning the public health and environment in the ward. Examples of the tasks are prevention of communicable diseases such as malaria and diarrhea, improvement of sanitation in the community, immunization of children under 5 years of age, educating community about health and environmental issues and inspection of households, food and business premises and institutions such as guest houses, restaurants, industries and market places. School health education is also under the activities of the ward health officer, but at least in the studied wards this was not part of current activities.

Some of the wards are rather small in size and are located in/near the central business district. Others are large and spread in the wide area which is mostly rural; this is the case for example with Igoma and Ilemela wards. For instance doing the household inspections in very remote areas of the ward can be complicated and consumes a lot of time. This is because the health officer has to rely on public transport or go by feet due to the lack of own transport in the ward. Thus the activities and challenges of the health officers vary a lot from ward to ward. As is the case with other government officials, also the health officers do rotation and change from ward to ward usually after every few years.

Each ward has a ward health committee which could for example assist the health officer in his/her activities. When the health officers were asked about the activities of the committee, it could be noticed that many of the committees existed only on paper and had not efficiently started operating yet. One of the problems is that in Tanzania exists a system of paying a sitting allowance in the meetings. If the ward does not have funds to pay for the committee members, members will be reluctant to participate to the meetings. There were also different ways how the committee members were chosen: in some wards all members were officers working in the ward, in some other wards all committee members except health officer were neighbourhood chairmen.

As mentioned earlier, health committees have been formed also in some of the neighbourhoods. When a ward health officer is going to do household inspection in certain area, he/she needs to inform the neighbourhood chairperson beforehand. At the day of inspection either the chairperson or some members of the health or neighbourhood committee join the health officer, as they are familiar with the people living in the area. During the household inspections ward health officers look at the general cleanliness of the household environment, waste disposal, toilet and shower, and give advice and educate people. If the household does not have a toilet/shower or it is out of order they are given a notice and certain time frame, usually from one week to one month, to repair or construct it. The timeframe may be a bit longer in the unplanned settlements located on the hills as the toilet construction may take more time. After the given time the health officer inspects if the corrections have been made, but if not, the responsible persons are taken to the land and housing tribunal of the ward (baraza la kata) to solve the case. The condemned person is then ordered to pay a small fine and carry out the construction if it is the case of broken toilet.

6 ENVIRONMENTAL CHALLENGES IN THE CITY OF MWANZA

Each person interviewed was asked about the current environmental challenges or problems he/she sees as the most important ones in the ward and city level within the city of Mwanza. Some of the issues, such as poverty and low income level can be the cause as well as the effect of the problems. In the table 3 the views are combined and presented under different topics. The chapter includes some photos of the environment in the City of Mwanza and more photos can be found in the appendix 3.

Table 3. List of environmental challenges in the city of Mwanza mentioned by the interviewees.

Awareness
Low income level and poverty
Negligence and low awareness of environmental issues
Low rate of education
Environment is not a priority
Inadequate funds for activities
Chairmen do not report environmental degradation at an early stage
Low awareness of environmental by-laws
Lack of environmental experts
Water and sanitation
Inadequate piped water network
Lack of safe drinking water
Use of the water from Lake Victoria causes health problems
Poor sanitation practices and state of latrines especially at hillside
No culture of building and using pit latrines in some rural wards
High cost of building latrines at the hills
The sewerage network serves only small amount of residents
Water table is high in some areas, septic tank/cesspool gets full fast
High cost of emptying the septic tank/cesspool
Illegal discharges of waste water from households
Solid waste management
No waste collection points/dumps in each ward
Large amount of waste, inadequate waste management
The amount of waste collection trucks and other vehicles not adequate
Amount of waste collecting CBOs not adequate
CBOs do not have enough equipment
Some customers are reluctant to pay waste collection fees
All people do not use waste pit, crude dumping
No sanitary landfill
More dustbins needed in the city
Other environmental issues
Sand excavation and brick making
Deforestation
Poor condition of roads/no roads in some areas



Figure 4. View to the Kirumba ward. The long structure is the fish market and behind it are the hills covered with unplanned settlements.

In the following section some of the challenges are looked at more in detail.

6.1 Solid waste management

The City of Mwanza has privatized the waste collection since 2002. Currently waste is collected within the area of fourteen (14) wards by one private company and 14 community based organizations (CBO). The CBOs get part of the funds from the City Council according to the amount of paved roads they clean. Additionally they receive money in the form of waste collection fees from households, institutions and business premises within the area of operation. When the CBO starts a waste collection in a certain area its responsibility together with the health department is to educate people about the meaning of waste collection and the residents also need to accept the service.

It is estimated that 88% of the solid waste which is generated in the areas which are under the waste collection services is collected and disposed of at the landfill in Buhongwa ward. This percentage has improved a lot as in 2003 the estimation of amount collected was only 61%. The waste amounts are estimated using national standards. But even though the CBOs and private company operate in 14 wards, their services do not reach all people living in the area. Especially in areas which are located further from the main roads, such as rural wards or most of the unplanned settlements located in the hills do not get the service as in many cases these areas do not have good road connections. Another challenge is that currently there is no waste separation practices of the municipal solid waste. /9/



Figure 5. City center of Mwanza. In the photo can be seen a truck carrying the skip-bucket used for solid waste collection.

According to the interviews and observations in the areas with no waste collection people usually dispose their waste by digging a pit in the ground or by burning the waste, which causes smoke nuisance and negative health effects. Anyhow due to the rocky terrain of Mwanza it is not always easy for people to find place to dig a pit for their waste as the size of the plot may also be very small so some people dump the waste haphazardly. Below is a comment of one of the ward health officers when asked about household inspection.

"Kule naangalia kwanza jinsi wanavyotupa takataka. Sasa wanapotupa zile takataka nakuta pia kuna tatizo. Kwa sababu pale watu bado hawana areas kutupa takataka zile. Halafu hawana management. Kwa sababu hakuna hawa CBO wanakusanya takataka zile ambazo ziko huko, taratibu inakuwa ngumu sana. Tumewafundisha kutumia shimo lakini wanashindwa wakati wengine kwa jinsi wanavyokaa. Anashindwa mtu kupata eneo kuchimba shimo, anamwaga holela tu."
-Bwana afya wa kata-

"There I first of all look at the way they dispose the waste. I can see that that there is a problem in the disposal. Because those people do not have areas to dispose off their waste. Additionally they do not have management. Because there are no CBO workers who are collecting waste so the procedure is very difficult. We have been teaching them to use a pit but sometimes some people fail due to the way they live. A person fails to get an area to dig a pit and dumps [the waste] haphazardly."

-Ward health officer-

Especially many of the neighbourhood chairpersons suggested that the waste collection should be extended to wider areas in the wards or at least there should be more waste collection points, so that people who do not get the service could take the waste there by themselves. Currently the Mwanza City Council does not have adequate amount of equipments such as trucks to collect and transport the waste from the waste collection points to the landfill. Thus even though it would be

important to increase the number of waste collection points/dumps the current deficit of equipments would not allow the efficient removal of waste from those points. /9/

Sometimes there is problem that some households refuse to pay the waste collection fee which currently is 400 Tsh per month. If this continues for many months, the operator can contact the neighbourhood chairperson or directly the ward office to get assistance. The household in question is contacted and if they still refuse, a responsible person is taken to the land and housing tribunal of the ward to face the charges. It is only recently that the by-laws have started to be implemented but the interviewees see that it has started changing people's attitudes. One reason may also be that the residents have become more familiar to the work of the CBOs and understood their meaning.

The health department cooperates with the CBOs through ward health officers who inspect the work done at site and communicate with the CBO at the ward level. The city health officer also calls up a meeting quarterly where the CBOs and health officers from respective wards meet and discuss about the achievements and problems and aim to solve them together. Currently some of the biggest problems are that many of the CBOs are having low income and many do not have an adequate amount of working equipment, which means that the workers are not always able to perform their tasks effectively.

In the table below is a list of operators which were doing waste collection within the city of Mwanza during the June 2008. Currently there are 15 operators, of which 14 are CBOs and one is a private company, which work in the area of 14 wards.

Table 4. List of operators doing solid waste collection within the city of Mwanza.

No	Ward	Name of the CBO/company	Number of workers
1.	Pamba	Prima Bins (private company)	40
2.	Nyamagana	Prima Bins (private company)	40
3.	Pasiansi	Pasiansi Tulinde Mazingira	25
4.	Nyamanoro 'A'	Umoja wa Wajane	25
5.	Nyamanoro 'B'	Mendeleo Mkudi	25
6.	Kitangiri	Charity Organization	15
7.	Kirumba	Quality Life and Environmental Destiny (Q.E.D)	30
8.	Isamilo	E.T.I.A.	15
9.	Mirongo	Chasama	20
10.	Mbugani	Maendeleo Mbugani	25
11.	Nyakato 'A'	Uzota	25
12.	Nyakato 'B'	Tufuma	25
13.	Igoma	Mkuwa	26
14.	Mkuyuni	Himaja	15
15.	Igogo	Kinyagesi	15
16.	Butimba	Boresha Mazingira	20

Source: /10/

6.2 Sanitation

According to the Comprehensive Council Health Plan (CCHP) for Mwanza City the main sewerage system covers about 2.5% of the population living in the city center area. Septic tanks are used by estimated 51% of the population mostly living in urban and peri-urban areas. The rest of the population, about 46.5% is using pit latrines for disposing the excreta. /5/

There are different types of latrines used by the people living in the City of Mwanza and some of the most typical ones are shortly described below:

- **Traditional pit latrine**

The traditional pit latrine is the simplest form of the latrine. It is usually a shallow pit dug to the ground and the hole is covered with wood or logs. It is a temporary option as the wood degrades and needs to be changed from time to time. Usually

when the pit gets full it is covered with soil and another one is dug. To give the privacy, the latrine can be surrounded with grass fence, or pieces of fabric. In the improved version a structure over the pit is constructed using bricks or other building materials. /3/



Figure 6. Traditional pit latrine surrounded by fabrics.

- **Ventilated improved pit latrine (VIP)**

In the ventilated improved pit latrine (VIP) the pit is covered with a structure and a ventilation pipe from the pit is installed to extend above the latrine roof. This method decreases the odour nuisance and flies in the latrine. /3/

- **Pour flush latrine**

In the pour flush latrines the pit is constructed few meters from the toilet structure and connected to it with a pipe through which the excreta is directed into the pit using small amount of water. The pipe has a water seal which prevents flies from entering the pit and controls odours. This method is useful in cultures where water is used for cleaning purposes, such as in Tanzania. The pour flush latrine may be provided with a ventilation pipe. /3/

- **Mound latrine**

The mound latrines are constructed partly on the surface of the ground and are practical especially in areas with rocky soil or high water table. The type of the latrine may be for example VIP or pour flush latrine. /14/



Figure 7. Photos of a mounded pour flush latrine connected to septic tank. The location is at the hills and that is why it is constructed partly on the surface of the ground.

- **Septic tank and cesspool**

Septic tank is an underground settling chamber which is connected to the latrine by pipe. A partial separation of the solids takes place when the sludge is formed. The effluent from the tank usually infiltrates into the ground through soak away pit or drains. The septic tank is useful in areas with permeable soil but not in areas where the ground is saturated with water. The cesspools are larger tanks which are also

used for storing the excreta until it is removed by vacuum tankers of cesspool emptiers. /3/

Based on the interviews there are still people who are not using toilet, or the condition of the toilet is very poor. This is especially the situation of some families living at the unplanned settlement on the hillsides. Some interviewees also commented that in many rural neighbourhoods people do not have the culture of constructing a pit latrine but instead use bushes to do their things. Changing the behaviour of people is a very slow process. In some cases the terrain is so rocky that there is no place to dig a pit for the latrine. Even if there would be place, often the depth is not very deep causing the latrine to be filled in a short period of time. This has caused that some people have constructed a system which enables them to open the latrine during the rain season letting the waste waters run down the hill.

This kind of practice causes nuisance and health problems to the people living downhill and as the waste waters finally reach the Lake Victoria they contribute to the eutrophication. According to the waste management guidelines of the Ministry of Health in Tanzania the pit latrines should be constructed at least 30m distance from a water source and in an area which is not saturated with water. The challenging geography and high population density is causing that this regulations cannot always be followed. /6/ /14/

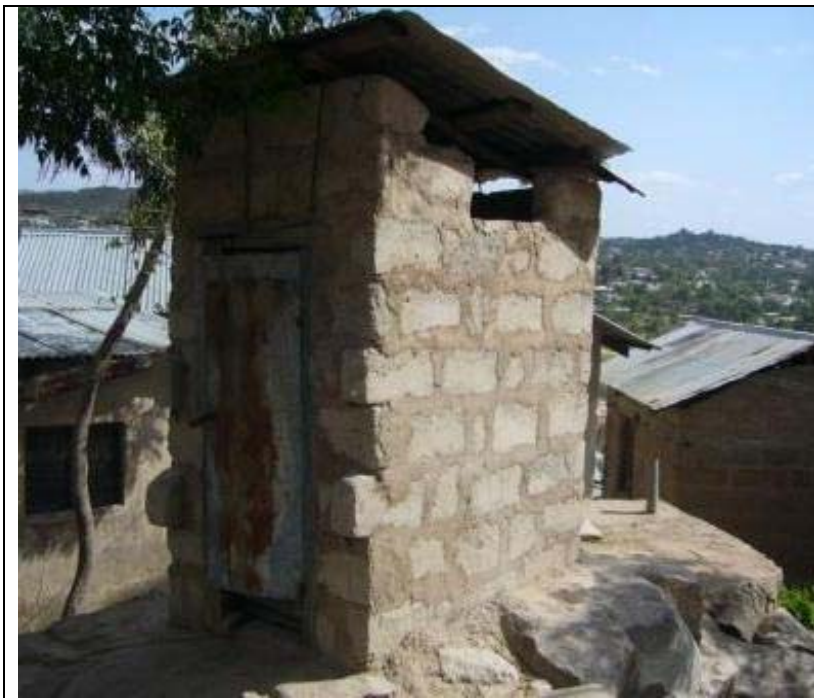


Figure 8. Pit latrine connected to septic tank build on the rocks at the hillside settlements.



Figure 9. Picture showing the rocky environment on the hills.

As it is not often possible to dig a pit latrine, the way to construct a proper toilet on the hills would be to build a toilet connected to the septic tank on the surface of the ground. This requires lot of funds, as materials such as cement and iron bars as well as the cost of manpower have to be considered. One of the persons interviewed said he had used about 400 000 Tsh (equivalent for 200 euros) for construction of the toilet. Taking into account that the average per capita monthly income of people living in Mwanza city is US \$21 and most of the people living on the hills are having a very low standard of life, using such amounts only for toilet construction is not possible. The city council truck for emptying the septic tanks are not able to reach most of the unplanned hillside settlements, but based on the interviews the emptying is performed by some individuals who are paid to do the work manually.

In some areas, for example in Kirumba ward the water table is naturally high. This is creating a problem for many households using soak away pits and septic tanks as can be read from the comment of a neighbourhood chairperson below:

"Katika mtaa wangu mvua ikinyesha kuna maji mengi. Maji yanaingia chooni kutoka chini. Vyoo vya watu vinajaa na wananchi wanapata tabu kukodi gari kutoka jiji. Hela nazo zimekuwa nyingi. Tuzitoe wapi sasa? Kwa hiyo tunahitaji sewerage".
-Mwenyekiti wa mtaa-

"In my neighbourhood, during the rain season there is a lot of water and the water enters into the latrines from the bottom. People's latrines get full and they get trouble to rent the car from the city council [to empty the septic tank]. It requires a lot of money. From where can we take it [the money]? That is why we need the sewerage."
-Neighbourhood chairperson-

The emptying of septic tank is costly and as a result some households discharge waste waters illegally into the surrounding environment, but people have started to

take action and some people have been taken into court because of that. All the people interviewed in Kirumba ward wanted that the houses would be connected to the main sewerage network as it would decrease the problem.

There are plans to make pilot project at some of the neighbourhoods in Isamilo and Kirumba hills where the household pit latrines would be connected by pipes to a large collection tank down the hill. The waste waters from the tank could then be collected with a truck and taken to the waste stabilization ponds in Ilemela ward. The project is under the Mwanza Urban Water Supply and Sewerage Authority who in cooperation with foreign consultation company made a survey in the early 2007 in the chosen neighbourhoods in Isamilo and Kirumba wards. One of the chairpersons in Isamilo commented that the company came to do the survey and the resident were responding positively to the project, but also criticized that after the surveying the community had not got any news on the implementation of the project. According to the city health officer there plan was still there but was not aware of the timetable of implementation.

The grey waters mainly from the kitchen and bathroom are not usually connected to the septic tanks in order to prevent it getting full within short time. Instead the waters are in many cases discharged into the surrounding environment or using pipes directed into channels and drainages passing close to the house. Even though this practice may not cause problem to the environment, it may cause nuisance to the people living in the neighbourhood. /6/

6.3 Drinking water supply

According to the Comprehensive Council Health Plan 72% of the population in Mwanza are using the tap water, either directly or buying the water from the neighbours. Estimated 20% of the people use protected wells and the ones

remaining use either unprotected wells natural springs or the lake water. The piped water is drawn from the Lake Victoria and goes through mainly sand filtration treatment before it is distributed to the network. /5/

The issue of inadequate piped water also came up in discussions. Most of the Ilemela ward is not yet served with piped water, thus majority of the people use the water from wells or directly from the lake, which they either fetch by themselves from the lake or buy from individual vendors who sell it for the price of 150Tsh / 20 liters. As the normal price for the same amount of water bough in the city from neighbourhood standpipes is usually 35-50Tsh it can bee seen that people have to pay a high rate. On the other hand the vendors take the water from the lake by themselves and transport it with bicycle. That is the work they do, which means they also need to get some income.

Usually water collection is the work of women and children. When they need to get the water from long distances, it consumes the time which could be used for other activities. It is also very heavy physically. During the interviews it also came out that there are people who do not boil the water before use. It is advised to boil also the tap water as the purification of the lake water is not very effective, and leaking pipes may cause the microbes to enter the distribution pipes. Many people know the importance of boiling, but some of them may be very poor and do not want to use the small amount of firewood or charcoal for boiling the water but instead use them for cooking. Thus many people suffer from diarrhea, typhoid and other illnesses which they get from the water and poor sanitation. One chairperson also gave an example that some of the fisherman go further to the lake and fetch the drinking water from there as they think it will be cleaner and safer there even though the chairperson said they had been educating citizen about the issue.

6.4 Other environmental issues

The land degradation due to the excavation of sand for brick making came also up in some of the discussion. This is the problem especially in rural and semi-rural wards such as Igoma and Ilemela which have more areas suitable for soil extraction. The continuous population increase contributes to the need of building materials, which is causing the activity. The soil excavation may be really harmful as it often takes places in areas which are someone else's property, such as a plot and this way causing also economical loss to the owner. When the vegetation is removed, the soil is prone to erosion especially during the rain season and the holes may also provide breeding grounds for mosquitoes and other insects. /6/

Other point is that some of the bricks are burned, and the burning requires firewood. Thus the brick making activities also cause deforestation. According to the city urban planning officer, some areas for legal quarrying and sand excavation have already been identified, but more areas are still needed. The solution is not to try to stop all the activities, as it creates income, but to direct the people to the areas where the activities can be done legally. In this way also the environmental harms can be concentrated on certain areas. /6/

Deforestation is still a problem in the City of Mwanza especially at the hills where a lot of the vegetation has been cleared to create space for settlements. It seems anyhow that tree planting initiatives of the government and awareness rising has improved the situation. The use of firewood and charcoal for cooking is a common practice, but the wood is mainly imported to Mwanza from other regions. /6/



Figure 10. Place located in Igoma ward where illegal sand excavation and brick making has taken place.



Figure 11. Water collected into the excavation hole.

The noise pollution was mentioned by the city environmental management officer and few other interviewees but it does not yet seem to be thought widely as an environmental problem. Based on my observations and experiences the noise pollution especially from nightclubs and local bars is very disturbing particularly in the wards located near the city center.

Some of the chairpersons which were living near the areas with many industries, especially fish industries were complaining that the industries were occupying the lake shores leaving only small spaces for the local people to use the shore for example for fetching water. None of the people interviewed at the ward level were anyhow commenting about the negative environmental impacts of the industries which discharge their semi-treated effluents to the lake. Neither did they seem to be concerned of the eutrophication of the lake. This may be because of low awareness, but also because they are more concerned with the issues which are present in the community and are directly related to their lives. /6/

6.5 Comments

It was interesting to notice that the environmental challenges stated by the people were very similar with each other and usually were concentrated only few issues which were solid and liquid waste management, environmental degradation and lack of awareness. When the interviewees were commenting about poor state of latrines and illegal discharges of waste water they seemed to be more concerned on the nuisance and health problems related to it, but were not mentioning the harm it causes to the lake when the waste waters finally find their way there. Anyhow, these issues are directly related, as the pathogens and nutrients which come with the waste waters into the lake enhance the plant growth and decrease the water quality, and thus also affect on the quality of the drinking water.

As the above mentioned examples show and as McGranahan et al (2001) also note most of the environmental burdens in the low-income cities are local and strongly related to the human health at the neighbourhood and household level. In more affluent cities the problems are more in the city and regional level and the conditions at the household level have improved and are not imposing such a direct health risks as in low-income cities. /4/

The poverty and lack of awareness and education seems to be some of the most important challenges that are present. As most of the people live at the hills where the living conditions are usually more challenging than down the hill, they are usually also the ones who have the lowest standard of living. As people do not own the land where they have the plot and live there illegally, it is very difficult for them to get a loan or even to move anywhere else.

The lack of awareness was affecting also the work of neighbourhood leaders as some of them commented that low level of knowledge on by-laws and other environmental issues makes it sometimes difficult for them to tackle the problems. When the environment is not a priority, the sector is also receiving inadequate amount of funds which makes the implementation of activities more difficult. What was interesting is that according to the environmental management officer the 2008 budget is the first one which has some separate funds to be allocated for environmental activities, such as organizing seminars to the ward leaders and stakeholders as well as preparation of industrial environmental profile. This is a sign that the field is gaining more importance, but lots of things are still to be improved.

7 PUBLIC PARTICIPATION AND PARTICIPATORY PLANNING

7.1 Public participation through meetings

The neighbourhoods are the grass root actors in the decision making. Public meetings are organized usually monthly or every two to three months depending on the issues which need to be discussed and the activity of the chairperson and the committee. Meetings are announced one day beforehand. In many of the neighbourhoods the agenda is prepared jointly by the chairman and the members of the neighbourhood committee and sub-committees as well as the ten-cell leaders, based on the issues which are currently concerning the society. During the meeting people discuss about the important issues, give out their ideas and hear about topics which are announced from the city level. An example of the environmental issues discussed in the meeting is given by a neighbourhood chairperson:

“Kwa mara ya mwisho tarehe 23 Decemba mwaka jana tulikuwa tunajaribu kuongelea usafi wa mazingira kwa sababu kulikuwa na huo msimu wa maembe.--- Sasa unajua ile inaweza ikafanya epidemic flani kwa hiyo tukawaambia wafanye usafi wa mazingira. Sasa watu si wanakula wanatupa tu njiani. Hapo gengeri hapo si watu wanauzia pale, hapo madukani hapo napasema. Sasa na wale wanaouza maembe na wenyewe wapo wanapouza maembe. Sasa wewe ukinunua, na mimi nikinunua, ni kila wanakula pale pale na wanatupa. Sasa ule uchafu unaweza ukaleta kipindupindu. --- Tunaweka tahadhari. Tuliongea na watu walifanya usafi. Walichimba mashimo ya kuweka ule uchafu wa maembe.”

-Mwenyekiti wa mtaa-

“Last time on 23rd of December last year we were talking about environmental cleanliness because it was a mango season. --- You know, it may bring epidemics so we told them [the residents] to clean the environment. When people eat they just throw [the remains] to the ground. There at the small market place where people are selling, there at the shops, there are those who are selling mangoes. So when you buy, and I buy and everyone eats there and throws away [the remains] it is possible that the dirtiness can cause cholera. --- We are taking precautions. We discussed and people cleaned. They dug holes to dispose off the mango waste.”

-Neighbourhood chairperson-

The meetings are usually held during the weekends as more people have time to attend. Many of the interviewees were anyhow complaining that in many neighbourhoods, especially at the urban wards people do not come to the meetings as they are busy with own activities and work, or have got tired of meetings as they do not see any impacts. It was also somehow confusing as some of the interviewees said the neighbourhoods should organize public meeting every month, other said quarterly. Thus it seems that the actual procedure is not clear for everybody.

Mostly the participation of people takes place in the meetings, but when the interviewees were asked about other routes there were comments that sometimes some individuals come to report the environmental issues to the neighbourhood chairperson. If the chairpersons are not able to handle the issues themselves, they contact the ward which directs the issues to the ward health officer or even the city council if needed. Some people may go directly to the ward office or even to the councilor or the city director to report, even though the last mentioned is not a recommended practice.

7.2 Opportunities and obstacles to development (O&OD) planning process

7.2.1 Historical perspective and definition

In Tanzania the planning has historically been top-down process where the government has had the power to decide the goals, objectives and targets for the plans as well as define the time frames and priorities. There the people were not able to participate to the planning and bring out their own priorities, but were just involved in the implementation of the plans. /16/

During the period in 1992-2002 lot of reforms at the public sector took place. Some examples of these are local government reforms, planning and budgeting reforms and legal sector reforms. The aim of the reforms was to

- Strengthen the role of local government authorities, non-governmental authorities and private sector
- Give more power to local governments to implement the development activities, improve service delivery
- Strengthen the democracy in order to increase the development in the community

/16/

The Opportunities and Obstacles to Development Planning methodology (O&OD) is a planning tool that is used in making the development plans in the communities at ward and district level. Previously there was no planning methodology between districts and villages/wards. Thus the government needed to formulate the O&OD planning methodology in order to fill the gap. It is a planning process which aims to increase the participation of the society and has both urban and rural methods. It is a bottom-up planning where the communities identify their needs and resources and

they will also be defining the steps of implementation and be responsible of contributing to the projects. /16/

The opportunities to the development of the community can refer for instance to

- Things which the community has and uses effectively such as dispensary
- Things what they have but do not use effectively, such as arable land or water ways which are not used for irrigation
- Things which the community have a right to use but do not have, such as right for safe water which is not available.

Obstacles to the development instead may be related to

- Economical obstacles such as lack of capital
- Technical obstacles such as lack of technology and skillful people
- Political obstacles such as differences in ideologies
- Social obstacles such as traditional and outdated beliefs

/16/

7.2.2 O&OD planning in Mwanza

The latest O&OD planning took place during the early 2008. The plan is made for the period of 2008-2011 and goes according to the fiscal year which in Tanzania starts in July. The first O&OD plans in the City of Mwanza were made for the years 2004-2007. Thus it can be noticed that the methodology is still rather new and has not been in use for a long time.

In the plan the main targets and goals are based on the Tanzania Development Vision 2025 (see appendix2) but the community defines the specific objectives, opportunities, obstacles, causes, interventions, steps of implementation, inputs, costs, indicators and the priorities for the plans. Thus they themselves define how

they are aiming to achieve their targets which follow the national targets and goals, during the period of 2008-2011. This is an example how the national vision can be turned into actual plans and activities which aim to improve the quality of life of people. The O&OD plans also include the daily activities calendar by gender which generalizes the activities of the family members during the day. Additionally the plan includes the household wealth ranking, where the conditions of the households are divided into three categories: good, satisfactory and poor, and in each ward and neighbourhood the amount of household in each category should be known. Various data from the neighbourhoods and wards is also collected during the process used for the preparation of plans. /8/ /16/ /19/

The funding for the planned activities comes mostly from the government of Tanzania and through the Local Government Capital Development Grant (LGCDG) which gets funding mainly from the World Bank and some international donors. Additionally the communities are responsible of contributing to the projects, for example in the school building project each household is supposed to contribute certain amount per year. Part of the funds also comes from the city council. /18/

7.2.3 The urban process of preparing the O&OD plans

The procedures to prepare a village participatory development plan and urban participatory development plan based on obstacles and opportunities differ to some extent. Due to the nature of the study only the urban procedure of preparing the O&OD plan is considered.

According to the coordinator of the process, the first step in the planning process is to choose a task force in each ward which is appointed by the city council and consists of 5-6 officers in each ward. The members in the task force are trained about the whole process of participatory planning. They also review the previous

years' plans to see how many of them were implemented and would there be need to take unimplemented plans along to the new plan. During the WDC the chairpersons are informed about the coming activities to be done in the neighbourhoods.

After this a public meeting is organized either in each neighbourhoods separate, or in zones where people from many neighbourhoods come together. During the meeting the community discusses about different problems and needs in their area and usually vote to choose the priorities. Usually a map of the neighbourhood is drawn in order to understand better the obstacles and opportunities they have. The facilitators are not supposed to contribute to actual planning, but to give directions and helping the community in the planning. After listing the priorities, the neighbourhood committee finalizes the initial plan and sends the minutes of the meeting to the ward. The priorities of the whole ward are listed before the meeting of ward development committee by the civil servants to make the discussion easier.

/16/

In the WDC the plans from each neighbourhood are discussed and priorities are chosen by voting. Usually when the same problem or need arises in many neighbourhoods it gets more priority. Some projects touch large area, for example secondary school or dispensary will serve people in the area of many neighbourhoods, but construction of well or borehole touches only people living in one neighbourhood. Thus the projects may vary a lot from ward to ward and within neighbourhoods depending on the conditions and needs of the people.

After the WDC meeting, the ward task force finalizes the plan which is then sent to the city council. At the community level people list their plans but do not consider which departments will be responsible of the implementation. At the city council level the city facilitators team, which consists of members from each department, discuss about the plans in more detail and categorizes which project falls under

which department. They also polish and unify the structure and language of the plans and compile them into a book which consists of the O&OD plans of all wards in the City of Mwanza, but are not changing or deleting any of the plans. After the final plan for the ward has been made, a public meeting in each neighbourhood is organized and people are told what projects are in the final plan.

According to the coordinator the planning method does not involve directly the organization and NGOs, but after the plans have been made, it is possible that they are involved in the implementation phase. This can be the case for example with some of the sanitation and drinking water projects where the responsible authority for implementation is the Mwanza Urban Water Supply and Sanitation Authority (MWAUWASA).

7.2.4 Examples of the O&OD plans in the wards for 2008-2011

The plans have different sections which follow the targets of the Tanzania Development Vision 2025. Examples of the plans can be found in appendix 4 where some of the specific plans have been presented and translated into English. For instance when the priority is to build new classrooms to primary schools the target is the primary education for everyone and the specific plan is to increase the amount of students who pass the standard seven and are able to continue to the secondary school. Thus it can be easier for people to see the plan as a completion of school building rather than the amount of students passing the primary education. /8/

For example in Isamilo under the target of Good governance and the rule of law was a specific plan to make sure that public meetings in the neighbourhoods were done four times a year and committees would meet every month. Additionally the chairmen would need more training about by-laws. The need for training was raised up also during the interviews so it is good to see that the problems have been

noticed. But it was not mentioned in all of the O&OD plans for each neighbourhood so it is possible that it will not be implemented in all wards. /8/

The environmental issues are not often directly mentioned in the plans, but if the plans are studied more carefully they can be found. For example in Kirumba ward the importance of keeping the environment clean was found under the specific plan to decrease the amount of people suffering from malaria. In the steps of implementation was mentioned the cleaning of waste water channels from time to time, keep the household environment clean, and make by-laws to help the supervision of the cleanliness in the neighbourhood. /8/

7.2.5 Views on the O&OD plans

During the interviews there were various views to the O&OD planning process. In general interviewees were positive to the plan as it increases the power of the community to speak out and make development plans rising from the needs of the community. It is also a cooperative plan where the people in the community have to cooperate together and contribute for the implementation of the projects. As can also be seen from the comment of one neighbourhood chairperson:

"Sasa hivi kila mradi unaokuja, unakuja kwenye shirikishi: iwe shule - shirikishi, iwe kisima – shirikishi. --- Shirikishi mimi naiunga mkono sana, imetusaidia mno sisi wengine wa vivu"
- Mwenyekiti wa mtaa-

"Currently all the plans which are coming are cooperative plans: whether it is a school – cooperation, or a well – cooperation. --- I support the cooperation a lot, it has helped us others who are lazy ones."

-Neighbourhood chairperson-

As one of the ward executive officers commented, the O&OD plan is comprehensive plan combining all the plans and needs in the ward, thus they also concentrate on the needs of each ward individually. This is important as some of the needs may differ a lot depending on the geographical location and services which reach the ward, such as amount of households having piped water connection. Thus the plans gives ideas to the city and district level about the development needs of the community.

The process has also challenges which were raised up during the discussion. The neighbourhood chairpersons commented that as most of the people have low rate of income, they are not so willing to contribute. This may create conflicts between the chairman and the people when he/she should be collecting the money. If people do not see where the money goes, it decreases the transparency and trust and makes the collection of contributions in the future even more difficult. Some of the interviewees commented that sometimes people have started to contribute to a project but the funds from the city council have been unsecured, which has decreased the will of people to contribute further.

As the plans compiled to meet the needs of the whole wards, it is possible that in the wards with a very big number of neighbourhoods the priorities of some of the wards are not listed, or get smaller priority. Thus when there are only limited funds coming for the implementation of the projects, it is possible that some of the plans will never be implemented. This is what happened during the previous O&OD plan for 2004-2007. The government put more emphasis for the education and started a school building project all around Tanzania. Thus most of the funds were directed to the building of primary and secondary schools in wards causing that other projects were mostly eliminated. As some of the people interviewed were claiming, the politicians are able to change the plans of local government and affect negatively to the public participation using national policies. A comment by a ward

executive officer when asked if he believes that more plans will be implemented from the current plan:

“If things won’t be changed we are going to face the same story. The officials at city level, they should be committed, full committed to make sure people get development. But if they are not committed we are going to face the same story. Nothing is going to be implemented. --- There is a sort of centralization. They have to decentralize powers and funds, distribute funds to the ward level.”

-Ward executive officer-

Many of the interviewees commented that when people see that the projects which they have planned together are not implemented, they may lose their trust to the system. This may also decrease the number of people coming to the public meetings in the neighbourhoods, as they do not really feel that their participation would change things.

The coordinator of the O&OD planning process in the City of Mwanza estimated that only about 40% of the plans in the previous period were implemented, but it is possible that the percentage was even lower considering all the projects in the plans. On the other hand he also commented that wards had started some other development projects which were not in the plan, but this year they have been informed that it is important that only the plans which are written in the plan for 2008-2011 should be implemented. In the plan for 2008-2011 the emphasis is still a lot in education and also at some point in health and other issues do not yet get a lot of priority.

On the other hand the plans include a lot of issues which are not so visible to the people, such as training of neighbourhood chairmen about by-laws and giving them stationeries for work, or increasing the amount of income for households by giving them education related to cooperatives and animal husbandry and how to form cooperative groups. These are activities which aim to improve the quality of life of

people, but as they are not so easily measurable. They are not necessarily noticed and mentioned by people if they are asked to tell about the plans and activities which were implemented during the plan period. /8/

Currently there is no specific plan in the wards for the steps of implementation in the projects. There is only a strategic plan at the city council level which is more general. The formation of the more specific plan of implementation made by each wards would be useful. It would make the follow up of the projects easier and provide more information of the needs especially concerning the activities which are not so concrete, such as awareness increasing in the community.

8 ENVIRONMENTAL PROJECTS

One of the initial ideas in making the study was to find out what kind of environmental projects were going on in the wards. The initial interviews revealed however, that there were not many activities present. Thus the interviewees were asked what kind of projects they would find important to be implemented in their ward, if there were funds. Many different ideas were raised and they are presented in the table 5.

Table 5. Ideas for environmental projects in the wards.

Awareness
Training of local government leaders about environment, land use and by-laws
Continuous health and environmental education at public meetings, schools, institutions (e.g. churches, mosques)
Institutions should give good example to the community by planting trees and flowers and having adequate sanitation
Solid waste management
Increase the amount of CBOs collecting waste, also in wards which already have waste collection
Establish a waste collection point for each zone in wards
Translation of by-laws and laws into Swahili
Water and sanitation
Construction of improved pit latrines
Expansion of the piped water network
Construction of public toilets in wards/neighbourhoods
Cleaning of the small ditches and canals
Expansion of the sewerage network

Usually the proposed project ideas were related to the environmental challenges that the same people were stating, for example for poor state of pit latrines they were suggesting a project to improve the sanitation. Of course the interviewees did not have any project plans, but more of an idea what would be needed. The issue of awareness was really often mentioned, and it would be really important to organize seminar involving the neighbourhood chairpersons, mtaa executive officers and ward executive officers as well as councillors from each ward to get more information about the environmental issues. One of the problems is that most of the laws and by-laws are written only in English, thus decreasing the access to information as many people do not speak English. Thus there would be need for translations.

The issue of poor sanitation is challenging. It does not seem to be enough that the health officers make household inspections or the issue are discussed every now and then in the public meetings. As some of the chairpersons mentioned, the construction of public toilets in the ward or in neighbourhoods might decrease the

problem to some extent, but willingness of people to use the services may still be low. The process requires time, as many of the areas are not surveyed, and as mentioned in the chapter 5 under the UDEM framework the amount of surveyors and town planners working for the city council is inadequate. The question of unplanned settlements is also a political issue which could be noticed as reluctance in answering by some of the interviewees when they were asked how the issues could be improved.

One issue which came up is the cost of construction of pit latrines where the interviewees could just make guesses. A study about the cost and time of construction of improved pit latrines would be important. It could give people an idea what is really needed for the construction and where the society could support the low-income households. It may take a long time for a single family to collect the funds for constructing good quality latrine. Therefore a possibility that households could form groups and share the costs by building a latrine which they would use together could be studied. The study could see how the community would response to the idea and what ideas they have for improving the situation.

As can be seen in the following example, local residents and leaders are also able to improve the situation by themselves. In one of the neighbourhoods the residents had made a plan that the health committee does inspections after every six months to the households to check if their toilets are out of order. In case they are, people have to pay fine. Last time the inspection was done in April and altogether 14 households were found without a toilet. They were given time to construct it and during the time of interview 8 had already build it. Some of them are still building and two household said they did not have a place to build it, so it was agreed that they can use neighbours' toilet and when it gets full, contribute to the cost of emptying. The households were given a deadline to the end of June 2008 and if they still were not ready, the chairperson would inform the ward and tell them to take action. The chairman commented that as people know that the inspection is coming, it gives

them incentive to take care of the toilet or even repair it before the time comes. This is a good example on how the neighbourhood chairperson and the committee together with the citizen are improving the state of latrines and also educating the people about importance of having a toilet.

In the O&OD plans of wards for the year 2008-2011 some of the environmental issues were also included but it can be seen that they were still a lot concentrating in awareness. Compared to the plans for education where wards had for example stated that they will build specific amount of new classrooms there was not a specific plan for instance to increase the amount of households having permanent latrines. /8/

9 DISCUSSION

Environment cannot be thought as a separate topic from all the other issues facing humans, but it is closely connected and mixed with the activities and life we live. This was also noticed during the study in the City of Mwanza. Even though the data was collected mainly through interviews in four selected wards, the results can be used in describing the situation in City of Mwanza more generally. As estimated 70% of the residents of the City of Mwanza live at the unplanned settlements located at the hills surrounding the city, many of the problems which came up in the interviews concerning the four studied wards can be found in other parts of the city as well.

Most of the environmental challenges which came up are local and closely connected to human health such as lack of good sanitation practices and facilities, inadequate solid waste management or poor infrastructure especially at the hillside settlements. The poverty and lack of awareness and education came up in most of

the discussions. These issues go hand in hand as can be seen in the following comment:

“Poverty and environment are like twin brothers, you cannot separate them. So everyone is thinking that first we have to eliminate poverty in order to solve somebody’s problems or national problems. But environment is part and parcel of national problems.” *-City environmental management officer-*

As most of the people live at the hills where the living conditions are often more challenging than down the hill, they are usually also the ones who have the lowest standard of living. As people do not own the land where they have the plot and live there illegally, it is very difficult for them to get a loan, build a permanent pit latrine or even to move somewhere else. This creates a cycle from where it is difficult to escape. But when the income level increases, it often affects positively also to the living conditions and the state of the household environment.

One of the challenge in Mwanza is that lot of people are renting the house they live in. If the landlord has not constructed good facilities, such as permanent latrine, the motivation of the tenants may be very low to invest to the improvements especially if they will live only short time in the house. Thus when the citizen are educated about the issues, it is important to remember the roles and responsibilities of the landlords as well.

The environmental sector cannot be separated from the other sectors. One could think that only the ward health officers are dealing with health and environmental issues in the wards, but this is not the case. The ones who are every day dealing with these issues are the grass-root leaders, especially neighbourhood chairpersons and mtaa executive officers as they are the ones working continuously with the community. Some of the issues are solved at the neighbourhood level and will ever reach the ward office and health officer.

Therefore it would be important that also those people are environmentally aware and understand the threats to environment and would be aware of some of the ways how to solve and prevent them. Additional to the awareness it is important that they have motivation and willpower to take actions if they see problems rising, and educate the residents around them. During the interviews some of the interviewees seem to be active and have many good ideas to improve the state of the environment, but there were also those who did not seem to set high priority for environmental issues. An encouraging feature is that the implementation of environmental by-laws has increased and seems that it has started to change the attitude of the people.

In addition to the local issues such as importance of hygiene and toilets, it would be good to educate the resident about environmental issues on a wider scale. Some examples of the issues could be land degradation, the condition of Lake Victoria, the issues causing eutrophication, what is the human effect on the condition of the lake and how it could be improved. The cooperation between different stakeholders such as the City Council, Lake Victoria Environmental Management Project (LVEMP), environmental NGOs, schools and media could be emphasized more.

What is positive to see is that there are ways how the grass-root is enable to participate to the development of the community. The use of participatory planning in the form of O&OD plans brings out the development needs of the ward and involves the citizens in decision making. Additionally public meetings work as channels where citizens can bring out their views. What some of the interviewees were criticizing is that it seems that currently most of the plans and programs have their emphasis on education, and other issues are left with less importance. Instead would be important to develop many sectors at the same time so that they can support each other.

The involvement of residents into decision making increases the public participation and trust of people. But as it came up during the interviews, unimplemented plans and lack of funds are some of the reasons which may decrease the motivation of people and actually decrease the participation. If the wards see and hear about good ways of public participation and activeness within their area, those should be noticed and also other people could be informed about them. This could motivate the people to act and develop new ideas as they would see they are listened.

As it has been mentioned earlier, the neighbourhood chairpersons are the link to the society and are known by the people living in the neighbourhood. This is important to bear in mind during the preparation of the Tampere-Mwanza cooperation project activities but it should also be emphasized more in Mwanza at the city council level because it seems there are resources which have not been used comprehensively. One example of this is the work of health and environmental committees, which could be utilized more effectively if their roles would be made clearer. The city environmental management officer was anyhow stating that there are plans to increase the role of the health and environmental committees in the wards and neighbourhoods but that is still at the planning phase.

Some of the challenges the chairpersons are facing, based on the interviews, are that they do not have an office, but use their house as an office. Even though some of the chairpersons have planned certain times of the day/week when they listen to the citizen, they do not have specific working hours or free days. There are also differences in the size of the neighbourhoods as some may have only few hundred residents and some over two thousand. As the chairpersons have not received any booklet or seminar about the specific tasks there are a lot of differences in the way the tasks are performed.

During the interview the views about the cooperation between different actors and stakeholders were also asked. In general the communication seemed to be good, but there were comments about lack of cooperation between some neighbourhood chairpersons and ward officers. This seemed to create mistrust and negative attitudes among the stakeholders which may have a harmful effect on the activities. One reason for this was the confusion about the task of the neighbourhood chairpersons and mtaa executive officers. Also the fact that the chairpersons are not paid salary has been causing lack of motivation. Thus it would be advisable to try to create some kind of system which would increase the motivation and willingness of the chairmen as they are important link in the local government.

When the project activities within the Tampere-Mwanza cooperation project are planned it is important to be aware of the stakeholders in Mwanza. As the route to the grass root is already there, from ward executive officers to mtaa executive officer and neighbourhood chairpersons would also be important to use that route when necessary in order to pass the message to the community. This would increase the cooperation and change of ideas in both ways and motivate people to act and work for the environment. Based on many issues presented in this study it may seem that the City of Mwanza is only facing environmental challenges, but what is important to notice is that lot of improvements have already taken place and there is continuous development going on. Challenges are still there but by combining the forces they can be faced and tackled.

Challenges faced in making the study

Due to the content and purpose of the study many of the issues to be studied were to be determined after my arrival to Mwanza in April. Thus it took some time in the beginning before the whole picture got sharper. One of the initial ideas was to find out what kind of environmental projects were present in the wards, but after the discussions with some health officers and other people it started to look like there

were not many projects going on. Thus I needed to change the approach and got the idea to ask people's opinions about the environmental projects which they would find important.

The people for the interview were decided during the April and May and most of the people were interviewed between mid-May and first days of July. The decision to choose four wards of which two were urban and two semi-rural was to keep the sample small enough to be handled, but anyhow large enough to get various views. In the future studies would be a good idea to get views also from the household level.

I found it very useful that I had some knowledge of Swahili, the official language of the United Republic of Tanzania, as most of the people interviewed were not talking English, or had only very limited skills. As I could do the interviews without a translator, I also felt that I was able to establish a relaxed atmosphere and closer relationship with the interviewees during the interviews.

As many of the interviews were done using Swahili language some challenges were faced as well. Some of the terms used in the questions may have a slightly different meaning when they are translated from English to Swahili and this caused sometimes few misunderstanding as the interviewee started to explain about a different topic. As my language skills were not perfect, it is possible that sometimes there were issues which would have needed more detailed questioning, but which I did not realize at that moment. The voice recording was anyhow helping as it enabled me to review the material more in detail during the analyzing phase.

The problem with interviews where people are telling their opinions is that one can not be 100% sure of the honesty or accuracy of the answers. A good example is that when the neighbourhood chairpersons were asked how often they organized public meetings, the answer may have been every month. But when they were then asked

when the last meeting was arranged, it may have been even three to four months ago. One reason for this may be the different time concept which many people have. Generally the data collection was anyhow going smoothly.

10 CONCLUSIONS

The purpose of this study was to give ideas how to improve the cooperation between the City of Mwanza and City of Tampere and help the stakeholders to make future plans for environmental cooperation. Some recommendations for future plans and activities to different stakeholders within the cooperation project are given below.

10.1 Tampere-Mwanza local governance cooperation project

The project could try to find ways to support the City of Mwanza in environmental cooperation. During the study emerged the need for training the local government leaders (ward councilors, WEOs, MEOs and neighbourhood chairpersons) about by-laws and other environmental issues. This would increase the awareness and improve the skills of the leaders to take action. One idea is that the project could support the Mwanza City Council in the implementation of the training and other kind of environmental education.

The insufficient cooperation and communication between the neighbourhood chairmen and ward officers could try to be improved by organizing training about administration which would clarify especially the tasks of neighbourhood chairpersons and MEOs. The responsibility for organizing the seminar is at Mwanza City Council, but the project could give support and assistance. It can be

assumed that improved communication between different actors would also improve the project outcomes.

As mentioned earlier, TAMK University of Applied Sciences cooperates with the project in environmental issues; especially in waste management. Group of students was teaching composting in the primary schools during the summer 2008. The school composting project should continue and expand with more emphasis to the cooperation with wards and neighbourhoods in which the schools are located. It is important to know to whom to turn to when implementing these projects in Mwanza. This is valid also to other kind of environmental projects which may be started in the future. It could also be possible to make a more detailed study within the community for example concentrating to the hillside settlements, people's awareness and ways how to improve the conditions.

10.2 City of Mwanza

Environmental committees in wards and neighbourhoods need support and clear instructions from the health and cleansing department and ward executive officers. Some kind of system for giving incentive could be made; for instance each year the most active neighbourhood health committee in each ward would get a reward during the World Environment Day celebrations.

Wards and neighbourhoods which have good examples of environmental activities could bring them up more in the city level and give different leaders opportunity to share their views and thus encourage others to act. This would show the active people that they are doing important work, and work as an incentive to other leaders.

The communication between neighbourhood chairpersons within the same ward seemed to be rather low. It would be important to encourage them to share ideas and ways of work as this might help them to solve some problems.

Currently the steps of implementation in the O&OD plans are quite general and do not provide detailed information on the activities. One suggestion for the wards is that they could make more detailed implementation plans for the activities mentioned in the O&OD plans. This would make it easier to do the follow up of the activities and provide more detailed information for the ward officials as well as citizen who are interested in the plans.

Sanitation issues seem to need special attention in the studied areas, especially in the hillside areas. Awareness rising about improved sanitation and study about different types of latrines suitable for each area and the costs related may be issues in the future cooperation. The activity presented in one of the O&OD plans in wards to train masons in each neighbourhood about construction of permanent pit latrines at the hills is also worth considering.

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All photos taken by Venla Pesonen

Appendices

- Appendix 1 Questions for the interviews
- Appendix 2 Tanzania Development Vision 2025 targets
- Appendix 3 Photos from the City of Mwanza
- Appendix 4 Examples of O&OD plans for 2008-2011 in the City of Mwanza

APPENDIX 1

Questions for the interviews

In the interviews done with the ward executive officers, mtaa executive officers, neighbourhood chairpersons and ward health officers there was a list of topics which were discussed during the interview, but the interviewees were also able to share and add their views on other issues which were emerging from the topics. This allowed getting more information also on issues which were not initially thought about, but which gained importance during the study.

The main areas of discussion were the tasks and activities of the interviewee (in general), work of committees in the ward/neighbourhood, the public participation, environmental issues in the wards/neighbourhoods, O&OD plans and the preparation as well as communication and cooperation between different stakeholders. As the idea was to get different view points to those issues, same topics were mainly used for all people interviewed at the ward level. Anyhow the questions had a bit different perspective and form depending on the interviewee's positions (e.g. whether he was a neighbourhood chairperson or ward executive officer). The interview was flowing naturally and the different topics were discussed in a random order depending on the course of the discussion. Usually there was time to go through all the topics within the time of the interview.

Below is a list of topics which were discussed in the ward interviews. It is showing the questions to the neighbourhood chairpersons. As the topic and types of questions of other interviews were similar, they are not presented here.

List of topics discussed in the interviews with neighbourhood chairpersons

Work of the chairperson and committees

- What are the main activities and tasks?
- How the chairpersons are chosen?
- What kind of compensation is given for the work?
- How many citizen and households are in the neighbourhood?
- How long the interviewee has been a chairperson?
- What challenges exist in the work?
- What committees exist in the neighbourhood?
- If there is a health/environment committee what are the activities?
- How does the land and housing tribunal of ward operate?

Public participation

- How often the public meetings in the neighbourhood are organized?
- How the meetings are announced?
- How many people usually participate to the meetings?
- Are people more active to participate nowadays than they used to?
- What kind of environmental issues are discussed in the meetings?
- What other ways citizen use to bring out their ideas/problems?

Cooperation with ward officers and other stakeholders

- How do you communicate with the officers in wards/city council?
- How do you see the cooperation with civil servants in the wards?
- Do you cooperate with other neighbourhood chairpersons in the ward?
- Are there any CBOs/NGOs operating within the neighbourhood?

O&OD plans

- Could you tell about the O&OD planning process in the neighbourhood/ward?
- Were there any difficulties faced during the planning?
- What plans were implemented during the previous plan period?
- How to improve the community contribution of development projects?
- Are there any other plans than O&OD plans at the ward level?

Environmental issues

- Are you aware of the by-laws?
- Have the chairpersons received any training about environmental issues?
- What kind of training about environmental issues you would be interested in?
- How often the ward health officer comes to do the household inspection in the neighbourhood?
- Are there any environmental projects/activities taking place in the neighbourhood?
- What are the most important environmental challenges in the ward/city level?
- What kind of environmental projects you would find important to be implemented in the neighbourhood/ward?

APPENDIX 2

Tanzania Development Vision 2025

THE TARGETS OF THE TANZANIAN DEVELOPMENT VISION 2025

The Tanzania Vision 2025 aims at achieving a high quality livelihood for its people, attain good governance through the rule of law and develop a strong and competitive economy. It is envisioned that the following specific achievements would be attainable by the year 2025:

1. High quality Livelihood

A high quality livelihood for all Tanzanians is expected to be attained through strategies which ensure the realization of the following goals:

1. Food self-sufficiency and food security.
2. Universal primary education, the eradication of illiteracy and the attainment of a level of tertiary education and training that is commensurate with a critical mass of high quality human resources required to effectively respond and master the development challenges at all levels.
3. Gender equality and the empowerment of women in all socio-economic and political relations and cultures.
4. Access to quality primary health care for all.
5. Access to quality reproductive health services for all individuals of appropriate ages.
6. Reduction in infant and maternal mortality rates by three-quarters of current levels.
7. Universal access to safe water.
8. Life expectancy comparable to the level attained by typical middle income countries.
9. Absence of abject poverty

2. Good Governance and the Rule of Law

It is desired that the Tanzanian society should be characterized by:

1. Desirable moral and cultural uprightness.
2. Strong adherence to and respect for the rule of law
3. Absence of corruption and other vices.
4. A learning society which is confident, learns from its own development experience and that of others and owns and determines its own development agenda.

3. A Strong and Competitive Economy

The economy is expected to have the following characteristics:

- A diversified and semi-industrialized economy with a substantial industrial sector comparable to typical middle-income countries.
- Macroeconomic stability manifested by a low inflation economy and basic macroeconomic balances.
- A growth rate of 8% per annum or more.
- An adequate level of physical infrastructure needed to cope with the requirements of the Vision in all sectors.
- An active and competitive player in the regional and world markets, with the capacity to articulate and promote national interests and to adjust quickly to regional and global market shifts.

Source: THE UNITED REPUBLIC OF TANZANIA. *The Tanzania Development Vision 2025*. [online] [Cited 07.08.2008] Available from the World Wide Web: <http://www.tanzania.go.tz/vision.htm>

APPENDIX 3

Photos from the City of Mwanza





APPENDIX 4

Opportunities and Obstacles to Development (O&OD) plans for 2008-2011 - City of Mwanza Mpango Shirikishi Jamii kwa Furza na Vikwazo kwa Maendeleo kwa mwaka wa 2008-2011

Examples of the environmental issues handled in the O&OD plans of wards

ILEMELA WARD

LENGO KUU 2.0: UONGOZI BORA NA UTAWALA WA SHERIA: LENGO 2.1: MAADILI MEMA NA KUTHAMINI UTAMADUNI:

LENGO MAHUSUSI	FURSA	VIKWAZO	SABABISHO	UFUMBUZI	HATUA ZA UTELELEZAJI	MAHITAJI	GHARAMA			VIASHIRIA	VIPAUMBELE
							JML	NDANI	NJE		
Kuondoa kabisa matukio ya uchimbaji wa mchanga katika maeneo yasiyo rasmi ifikapo 2011	Kamati ya maendeleo	Elimu duni ya mzingira	Ukosefu wa ajira. Umasikini Kukiuka sheria za mazingira	Elimu ya mhifadhi wa mazingira itolewe.	Semina na mikutano ya hadhara ifanyike. Kamati za mazingira za mitaa ziwajibike. Sheria itiliwe mkazo	Fedha Shajara Wataalamu		✓ ✓ ✓	✓ ✓ ✓		24

TARGET 2.0: GOOD GOVERNANCE AND THE RULE OF LAW OBJECTIVE 2.1: DESIRABLE MORAL AND CULTURAL UPRIGHTNESS

SPECIFIC OBJECTIVE	OPPORTUNITY	OBSTACLE	CAUSE	SOLUTION	STEPS OF IMPLEMENTATION	INPUTS	COST			VERIFICATION	PRIORITY
							TOTAL	INTERNAL	EXTERNAL		
To eliminate sand excavation activities in unofficial areas by 2011	Development committee	Low environmental awareness	Lack of employment Poverty Breaking of environmental laws	Education about environmental conservation to be given	Organizing of seminar and public meetings Environmental committees in neighbourhoods to take responsibility Law enforcement	Money Diary Specialists		✓ ✓ ✓	✓ ✓ ✓		24

KIRUMBA WARD

LENGO KUU 1:

LENGO 1.4:

MAISHA BORA NA MAZURI

UPATIKANAJI WA AFYA YA MSINGI KWA WATU WOTE

LENGO MAHUSUSI	FURSA	VIKWAZO	SABABISHO	UFUMBUZI	HATUA ZA UTEKELEZAJI	HITAJI	GHARAMA			VIASHIRI A
							NDANI	NJE	JML	
Kupunguza idadi ya watu wanaougua malaria kutoka watu 4370 wa sasa hadi watu 1000 ifikapo mwaka 2011.	Wataalamu wa Afya Wahudumu wa afya ya Jamii (WAJA)	Mbu wengi kuambuki za malaria.	Jamii kutozingatia ushauri unaotolewa na wataalamu wa afya. Mazingira machafu yanayoruhu su mbu kuzaliana kwa wingi.	Kudhibiti mbu wanaoambukiza malaria.	- Kuhamasiha/kuelimisha jamii kuzingatia ushauri wa wataalamu wa afya.	Posho Vipeperushi Vijarida	√	√		Idadi ya watu wanaougua malaria
					- Kusafisha na kuzibua mifereji ya maji machafu mara kwa mara.	Vifaa vya usafi	√	√		
					- Kuondoa na kusafisha takataka katika madampo kwa wakati.	Vifaa vya usafi	√	√		
					- Kusafisha mazingira yanayozunguka kaya.	Vifaa vya usafi	√	√		
					- Kufufua kitengo cha kunyunyizia dawa maeneo yenye mazalio ya mbu.	Mishahara Dawa Vifaa vya kunyunyizia				
					- Kutumia vyandarua vyenye kiutilifu (dawa)	Nyandarua vyenye viutilifu.		√		
					- Kutunga sheria ndogo za kusimamia usafi katika Mitaa.					

TARGET 1.0:

OBJECTIVE 1.4:

HIGH QUALITY LIVELIHOOD

ACCESS TO QUALITY PRIMARY HEALTH CARE FOR ALL

SPECIFIC OBJECTIVE	OPPORTUNITY	OBSTACLE	CAUSE	SOLUTION	STEPS OF IMPLEMENTATION	INPUTS	COST			VERIFICATION
							INTERNAL	EXTERNAL	TOTAL	
Decrease the number of people suffering from malaria from 4370m people now to 1000 people by the year 2011.	Health specialists Community health service providers (WAJA)	Lot of mosquitoes transmitting malaria	Community is not following the advice given by the health specialists Unclean environment allowing the extensive reproduction of mosquitoes	Control the mosquitoes transmitting malaria	- Motivate / educate the community to follow the advice given by health specialists	Allowance	√	√		Number of people suffering from malaria
					- Clean and unblock waste water drainages time after time	Flyers				
					- Remove and clean waste from the dumps after certain time	Newsletters				
					- Clean the household environment	Cleaning tools	√	√		
					- Restart the department of fumigation in reproduction areas of mosquitoes	Cleaning tools	√	√		
					- To use treated mosquito nets	Cleaning tools	√	√		
					- Create by-laws to help the supervision of cleanliness in the neighbourhood	Salaries Insecticide Fumigation equipment Treated nets				

ISAMILO WARD

LENGO KUU 1.0:

MAISHA BORA NA MAZURI

LENGO 1.4:

UPATIKANAJI WA HUDUMA ZA AFYA YA MSINGI KWA WOTE.

MAHSUSI	FURSA	VIKWAZO	SABABIS HO	UFUMB UZI	HATUA ZA UTEKELEZAJI	MHUSIKA	MAHITAJI	GHARAMA			MWAKA WA UTEKELEZAJI			VIASHIRI A
								JM L	MTA A	NJE YA MTAA	1	2	3	
1.4.2 Kupunguza idadi ya watoto wanaouguwa ugonjwa wa kuharisha kutoka 53 kwa sasa hadi 0 ifikapo 2011	Wataalam wa Afya	Uchafuzi wa vyazo vya maji na mazingira	-Mazingira machafu -Idadi kubwa ya vyoo vya muda	Kudhibiti uchafuzi wa vyazo vya maji	Kuelimisha jamii kuchemsha maji	Wataalam kamati ya afya	Vitendea kazi, posho			√	√	√		
					Kuelimisha jamii umuhimu wa kuwa na vyoo bora	Wataalam kamata ya afya	Vitendea kazi posho			√	√	√		
					Kuelimisha jamii juu ya elimu ya afya ya msingi	Wataalam,	Shajala posho			√	√	√		
					Kuhamasisha jamii kujenga vyoo bora na kuvitumia	Wataalam, WDC, kamati ya afya	Shajala usafiri		√	√	√	√		
					Kutoa mafunzo juu ya ujezi wa vyoo bora katika kaya za milimani kwa mafundi uashi 2 kila mtaa	Wataalam, mafundi uashi	Shajala vifaa vya ujezi posho			√	√	√		

TARGET 1.0:

HIGH QUALITY LIVELIHOOD

OBJECTIVE 1.4:

ACCESS TO QUALITY PRIMARY HEALTH CARE FOR ALL

SPECIFIC PLAN	OPPORTUNITY	OBSTACLE	CAUSE	SOLUTION	STEPS OF IMPLEMENTATION	RESPONSIBLE PERSONS	INPUTS	COST			YEAR OF IMPLEMENTATION			VERIFICATION
								TOTAL	INTERNAL	EXTERNAL	1	2	3	
Decrease the number of children suffering from malaria from 53 now to 0 by 2011	Health specialists	Pollution of water sources and environment	-dirty environment -high number of temporary toilets	Control the pollution of water sources	Educate community to boil the water	Health specialists	Working equipment allowance			√	√	√		
					Educate community for the importance of having a good toilet	Specialists Health committee	Working equipment allowance			√	√	√		
					Educate community about the basic hygiene	Specialists	Diary allowance			√	√	√		
					Motivate community to build a good toilet and use it	Specialists WDC Health committee	Diary Transport		√	√	√	√		
					Train 2 masons in each neighborhood about building good toilets at the hills	Specialists Masons	Diary Building tools allowance			√	√	√		