
Graduate School of Development Studies

# An Assessment of Community Participation in Water Supply and Sanitation Services:

## The Case of Yombo Dovya and Barabara ya Mwinyi, Water Community Projects, Temeke, Tanzania

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***WILLIAM MWAKILA***
(Tanzania)

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Members of the examining committee:

Dr. Sunil Tankha
Prof. Jim Bjorkman

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## *Inquiries:*


| | |
|---|---|
| Postal address: | Institute of Social Studies<br>P.O. Box 29776<br>2502 LT The Hague<br>The Netherlands |
| Location: | Kortenaerkade 12<br>2518 AX The Hague<br>The Netherlands |
| Telephone: | +31 70 426 0460 |
| Fax: | +31 70 426 0799 |

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## List of Acronyms

| | |
|---|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| BoT | Bank of Tanzania |
| CDD | Community Driven Development |
| CM | Community Management |
| CMC | Community Management Committee |
| CP | Community Participation |
| CPC | Community Project Committee |
| DAWASA | Dar es salaam Water and Sewerage Authority |
| DFID | Department for International Development |
| DRA | Demand Responsive Approach |
| FGD | Focus Group Discussion |
| ISS | Institute of Social Studies |
| GoT | Government of Tanzania |
| MDG | Millennium Development Goals |
| LG | Local Government |
| LGRP | Local Government Reform Program |
| NBS | National Bureau of Statistics |
| NGO | Non- Governmental Organization |
| NSGRP | National Strategy for Growth and Reduction of Poverty |
| NWP | National Water Policy |
| MKUKUTA | Mkakati wa Kukuza Uchumi na Kupunguza Umaskini (National Strategy for Growth and Reduction of Poverty) |
| NRWSSP | National Rural Water Supply and Sanitation Program |
| PHAST | Participatory Hygiene and Sanitation Transformation |
| PRA | Participatory Rural Appraisal |
| PWP | Public Works Program |
| RUA | Rural Appraisal |
| RWS | Rural Water Supply |
| SDIA | Supply Driven Implementation Approach |
| TASAF | Tanzania Social Action Fund |
| TSH | Tanzania Shillings |
| UNDP | United Nations Development Program |
| URT | United Republic of Tanzania |
| UDSM | University of Dar es salaam |
| UN | United Nations |
| UNDP | United Nations Development Program |
| USAID | United States Agency for International Development |
| VWC | Village Water Committee |

| | |
|---|---|
| VF | Village Fund |
| VWF | Village Water Fund |
| WASH | Water and Sanitation for Health |
| WB | World Bank |
| WC | Water Committee |
| WHO | World Heath Organization |

# Abstract

The study linked participatory approach and sustainability of water services which was focused in rural areas. Two villages in Temeke district were used as a case study. The methodologies applied to enhance people's participation were thoroughly discussed. Also examined were the extent to which people participated in the initial project planning, capacity building, and strategies to achieve sustainability.

Data collection techniques included; interviews, questionnaire, reference books and physical observations. The literature review was undertaken to see how participation leads to sustainability of water projects.

The study found that participation approach leads to water project sustainability only when elements of project sustainability were considered at the early stages. Such elements included operational and maintenance costs, willingness of people to contribute and demands driven. Also capacity building was found to be significant, which included training of community water attendants, and formation of local community based committees or water user groups to carry over the project activities.

Immediate areas in which to intervene were recommended, and these included concert efforts to be initiated during the project planning stage, training of WC members, sensitisation seminar on completed projects to enable the communities to carry out the operation and maintenance of water systems, and to make use of trained water attendants, WC members and observe the need to involve communities in all stages of project development.

Finally, a conclusion and recommendations were given so as to improve rural water supply and sanitation services.

# Dedication

I wish to dedicate this work to my family who missed me badly during the extended period abroad. Without their patience and perseverance, it would have been difficult to pursue my studies successfully.

I also dedicated this paper to beloved parents Mr & Mrs. Mwakila for their love, prayers and moral support in making my dream a reality. I will always love you and cherish your love.

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Though I received immense assistance from many people to accomplish this research paper, the entire shortcomings which may appear in it are entirely mine.

# Chapter 1
# General Introductions

## 1.1 Background

About 80% of Tanzania's population of 37 million live in rural areas. Despite significant investment in the Rural Water Supply (RWS) since the early 1970s, presently only about 50% of the rural population has access to a reliable water supply service. However, due to poor operation and maintenance, over 30% of the rural water supply schemes are not functioning properly (NWP, 2002: 30).

A review of the water sector carried out in 1995 identified a number of shortfalls in the NWP (1991) amongst which are: the under estimation of the role that could be played by the private sector, a necessity of a stronger involvement of the various stakeholders especially the communities and an inadequacy of the legal and institutional framework (ibid). "The government of Tanzania is aiming to increase access of water supply to 79% and adequate qualitative acceptable sanitation facilities to 90% by 2015" (NRWSSP, 2000: 13).

Community participation (CP) type of management of rural water supply and sanitation scheme is now entering its second decade as a key paradigm for water supply development and management. CP approaches did not appear spontaneously, nor do they exist in a vacuum. They emerged from a long history of trial and error in the rural water supply sector, and are linked to and affected by developments in many other sectors, particularly those related to more general rural development, but also natural resource management, and specifically water resource management (Schouten and Moriarty, 2003: 11).

"Water is part of the life –support systems therefore; its importance is beyond doubt. In the last two decades the concern related to the management of this resource has been a subject of several global conferences and a number of water organizations have emerged. In March 1998 the final declaration of the International Conference in Water and Sustainable Development recognized that a quarter of the world population did not have access to safe drinking water" [1].

The Dublin conference (1992) on water and environment came with a water declaration, commonly known as the Dublin Statement which has been a landmark in recent history of water resources management. The Dublin Statement established four principles:

1. Water development and management should be based on participatory approach, involving users, planners and policy makers at all levels.
2. Women play a central role in the provision, management and safeguarding water.
3. Water has an economic and social value in all its competing uses and should be recognized as an economic good.

4. Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment[2].

It is often argued by rural water experts, The World Bank (WB) and other donor agencies that CP is fundamental to the success of water supply in rural areas particularly in developing countries (Schouten and Moriarty, 2003: 8).

This paper, therefore, sets out to explore possible arrangements which can increase the share of community involvement in the development and operation of water supply schemes. In order to understand why there have been limited applications of this strategy, Tanzania's experience with community participation is examined. It is observed that the present organization and operational procedures of the water resources management have not adequately addressed the acute problem of water services in rural areas. This study explores the role of increased participation, local communities' involvement in all aspects of water scheme development.

Temeke District is the southernmost of three districts in Dar es Salaam. The 2002 Tanzania National Census reports that the population of Temeke District is 768,451. The area is 786.5 km$^2$. The main occupations of people in Temeke are both agriculture and business. 80% of people in Temeke live in rural areas (NBS, 2002).

"Temeke district has been plagued by acute water shortage for a long time. Poor performance of public sector drinking water scheme forced the central government to look for alternative options to solve the water crisis" (Kasiaka, 2004: 21).

CP suggested by the WB as one of the alternative way of managing the water resources in rural areas, this is due to the fact that involving the beneficiaries would help to make the water resources sustainable, sense of ownership, legitimacy and protection of infrastructure. WB through TASAF funding agency funded water projects in Temeke since in 1990`s. Currently Yombo Dovya and Barabara ya Mwinyi are the biggest rural water projects not only for Temeke but also the whole country (TASAF operational manual, 2008). Two water projects in Temeke were examined in this paper which were Yombo Dovya and Barabara ya Mwinyi.

This research intends to explore the ways communities are fully participating in all cycles of water projects development; therefore, this is the main research question[3].

## 1.2 Background of CP in Water Sector

"The problem of participation in water projects is a historical phenomenon. It can be traced back to the early 1960s, when Tanzania gained its independence. During that period, the government formulated a free water policy for all. The policy was put in place in 1969. Hence, rural people were no longer required by law to pay for their water services. In 1971, this policy was consolidated and the government declared to provide rural people an easy access to water facilities and free water services, within 400 meters from their household by the year 1991" (Kasiaka, 2004: 1).

Despite the good intention of the government, most of the constructed water schemes between 1970s and 1980s failed to achieve sustainability. This was due to a number of factors, among them being the practice of Supply Driven Implementation Approach (SDIA). In this approach, the government became the sole initiator, planner and provider of water service interventions. Furthermore, the system was so centralized in such a way that decisions made on water service allocations were externally oriented. The government was to carry out all operations and maintenance of village water schemes. In this context, all water works belonged to the central government. However, the outcome for this trend of affair was a lack of commitment to project beneficiaries, as far as issues of water services were concerned. Furthermore, due to economic crisis that occurred in the same period, all Ministries were forced to reduce expenditure on recurrent costs. Therefore, water scheme operations and maintenance were seriously affected (David and Brikke, 1995: 49).

The economic crisis forced the government to introduce cost sharing strategies in construction, operation and maintenance of water schemes. Hence, community-based water systems, following the 1991 NWP. NWP (1991) required communities to actively participate in water project cycles (Kasiaka, 2004: 2: Boko, 2002).

Cost sharing strategies were to be effected through establishment of Village Water Committees (VWC) and Village Water Funds (VWF). It was through VWC that communities were to participate in the initiation phase, planning, construction, operation and maintenances of water project activities. However, free water services did develop in the peoples' minds a no commitment syndrome. Hence, it became difficult to convince the community to engage and participate in water project activities and particularly, paying for water service charges. Moreover, participation of beneficiaries was only limited to unskilled labour. Therefore, beneficiaries lacked the sense of ownership, which then affected operations and maintenance of water schemes as well as its sustainability (TASAF Operation Manual, 2005: 21).

"By the year 1996, it was estimated that water supply facilities installed in the country, had a capacity to cater for only 48% of the rural population. Moreover, about 30% of all installed water schemes were deemed broken down or some being partially out of action" (Kasiaka, 2002: 3). All these shortcomings happened due to a lack of the community's commitment and a sense of ownership. Thereby, no one was responsible to cover operations and maintenance costs. On the other hand, the government by then had no capacity to repair all water schemes, due to its financial crisis.

According to United Republic of Tanzania (URT), water supply management has been decentralized in 1990`s (URT, 2000). Furthermore, the roles and responsibilities of stakeholders are clearly defined in NWP (2002) in which people are highly encouraged to participate fully in the provision of water services within their areas of residence (NWP, 2002:18).

According to the NWP (2002) weaknesses of the NWP (1991), the government made to be the sole implementer and manager of water schemes. These weaknesses led to the policy being reviewed and a new one introduced in 2002. The new NWP (2002) came up with a comprehensive framework for

sustainable development and management of national water resources. The framework aimed at ensuring that beneficiaries of water projects participate fully in planning, construction, operation, maintenance, and management of community-based domestic water supply (ibid).

## 1.3 Brief Descriptions of Case Study Projects

The objectives of both Yombo Dovya and Barabara ya Mwinyi water projects were to ensure access to improved and sustained water and sanitation services. Rural water supply and sanitation projects were within the joint initiative of the World Bank, Temeke district council and TASAF as funding facility. Yombo Dovya project cost was Tsh.17 Million. The projects started to be implemented in year 2000 and completed in 2005. Barabara ya Mwinyi water project cost was Tsh. 13 million, completed in 2008 (TASAF Operational Manual, 2005: 13).

The stated objectives of Yombo Dovya and Barabara ya Mwinyi village's projects were the following:

1. Assist the local government in identifying and implementing an appropriate policy framework to promote long term sustainability of water supply,
2. Test an alternative to the current supply driven supply mechanisms,
3. Improve rural income through income generating opportunities for both men and women,
4. Deliver sustainable heath and hygiene benefits to the rural population through improvements in water supply and sanitation services,
5. The projects sought to ensure quantity, quality, equity, reliability, coverage and access of water supply and sanitation services (TASAF Project Management handbook, 2005: 24).

### *CP in Yombo Dovya and Barabara ya Mwinyi Water Projects:*

Stakeholder's participation in water resources management has not been effectively implemented in the past and even identification and categorisation of stakeholders has not been carried out in most parts of the country. The ministry of water has usually been implementing activities without adequate involvement and participation of stakeholders including local communities in planning, management and decision making at all levels on issues related to water resources. This was the case for water projects in Yombo Dovya and Barabara ya Mwinyi.

Salient feature of these water projects is that they are `demand – responsive and community-driven` as the WB requires, and ensures CP of the project development. They should be demand responsive because water projects should be the community's priority. TASAF as a funding facility should not decide on behalf of the community but the community itself should make the decision in priority of other social priorities. Schouten and Moriarty (2003) argues that the role of community is pivotal in any project as initialized following an expression of demand from the community and a continuing

commitment for active engagement through planning, construction, management, and maintenance of the system.

## 1.4 Indication of the Problem

"Water is not like other commodity in the sense that it is essential to human life. It is also essential to economic growth and poverty reduction. About 18% of the world's population lacks access to improved water supply, According to WHO, 1.6 million deaths per year can be attributed to unsafe water and lack of sanitation" (Pérard, 2007:42).

"We shall not finally defeat AIDS, tuberculosis, malaria, or any of the other infectious diseases that plague the developing world until we have also[4] won the battle for safe drinking-water, sanitation and basic health care"(Kofi Annan, Former UN Secretary-General, Geneva, 2002). Poor water supply and sanitation services continue to be a critical problem in rural areas despite the considerable effort to improve and expand its access. Mounting evidence indicates that the centrally managed schemes, among others, are difficult to implement and operate when the communities served are disperse, remote, and relatively small and lack the financial resources and physical social infrastructure needed to support development or to maintain new systems[5].

Community managed water schemes appear to function reasonably well and to be sustainable. Although such schemes are obviously difficult to standardize for all communities, water and sanitation experts agree that they have numerous advantages over other approaches and that the question is no longer whether community management should be promoted, but how? "The time is ripe to explore the practical details of applying CP approach" (WASH: report number 4, 1990: 5).

Nearly three-quarters of the world's poor live in rural areas, and a large part of this population does not have access to clean water and safe sanitation facilities. The World Bank has become an important investor in rural areas[6].

Until recently, projects often failed because they used top-down approaches in which community members had little or no say on deciding what or how services were to be implemented. WB now promotes the demand responsive approach (DRA) as part of an effort to achieve effective and sustained community-managed services. Experience with successful projects suggests a set of basic principles to guide the design of rural water and sanitation interventions[7].

Many International organizations and donor countries have been funding water sector in Tanzania since independence in 1961, more recently adopting the approach of participatory management as proposed by the Dublin Conference. Despite the efforts made, there are still no adequate water supply services in rural areas.

Since 1990`s WB has been funding several water projects in Tanzania. Before 1990`s water projects were under the management of central government, and were later shifted to the local government authorities (URT, 2008). Neither central government nor local (LG) authorities had been successful in improving water availability especially in rural areas. The reason why rural water did not improve was that beneficiaries were not involved in

planning, implementing and managing the water systems. Community members were not accountable and they believed that the water projects belonged to the government and donors, even if there was manipulation of water systems like theft of water facilities and equipment, villagers thought that those thieves were manipulating government properties and not theirs. CP promotes villagers who are the main beneficiaries, to feel that the water project belongs to them and any one who manipulates the water systems treated as against the community interests and not the government and/or donors.

The access of water in rural areas is insufficient and inadequate despite several management approaches applied to improve access, and the currently adopted approach of involving the community. Department of International Development (DFID) points out that throughout human history, water resources has been a source of conflict. As demand for water rises, the potential for conflict may increase. Many International commentators argue that water will be an increasing cause of dispute in the years ahead. This may be more serious in rural areas (DFID, 2004).

All WB funded water projects supported through TASAF are community managed schemes. "TASAF is a government funding facility organisation that provides a mechanism that allows local and village governments to respond to community demands" (TASAF projects handbook, 2008: 12).

The water supply and sanitation projects in most villages in Tanzania are facilitated and funded by TASAF which receive loans from World Bank on behalf of the government. According to WB press release of 30 December, 2000, states that "The WB Board of Executive Directors approved an International Development Association (IDA) credit of US$129 million and a grant of US$21 million to improve social infrastructure and enhance access to essential public services by poor communities in Tanzania"[8]. The funds were remitted to TASAF on behalf of the government and part of it financed water projects.

There is no clear evidence or little has been done to assess the effectiveness of water supply and sanitation under CP as an alternative way of managing water resource with specific to rural setting. Many projects sustainability are uncertain, they work for short periods and collapse after funding institutions cease to provide support both financially and technically. In Tanzania WB had been implementing many water projects, however most of them last only for a short period due to a number of factors like system failure, lack of regular maintenance, lack of funds, manipulation of the systems, lack of accountability, control and legitimacy.

WB, TASAF, local authorities, central government and communities play key role in improving water sector in rural areas. WB is the sources of funding, TASAF the organization entrusted as a funding facility on behalf of the government, and the community as the beneficiaries and overseers of the implemented projects. GoT and local authorities play key role in policy formulation and implementation.

**Figure 1: Situation of water supply in rural Tanzania.**

Tanzania rural dwellers have no reliable access to water services. It takes much time for rural men and women to get water (Source: NWP, 2002)

## 1.5 Relevance and Justification

Water sector is among the social service projects which have been on top of Tanzania political agenda and receives huge financial support from donor countries and international financial institutions such as WB (URT, 2002).

Many rural water supply and sanitation services argue that CP could replace some of the lost state's implementation capacity brought about by the implementation of IMF structural adjustment program (Kasiaka, 2002: 51 ).

Most development projects donors identify CP as one of the prerequisite for the improved performance of water sector. "Many projects start by involving community members in trench digging, system maintenance and water committees. However, it soon turned out that sustainable water supply and sanitation could not be achieved without involving the community not just in manual work, but also in the planning of programmes and the selection of technology" (Therkildsen, 1988: 42).

CP in water supply sector in Tanzania were more pronounced in 1990`s. Since then many water projects were implemented in various districts, but inadequate sustainability and ineffectiveness of management approaches have been the main impediments in improving water access in rural areas.

There are many studies conducted on CP approach of management in water projects; however few have been completed on rural water supply and sanitation services. This study is therefore pertinent to explore the linkage between CP and rural water schemes sustainability. Involvement of key stakeholders like the community, private sector and charity organizations are paramount important in development water projects (NWP, 2002: 33). After six years of the NWP (2002) implementation, it is relevant to research and find out whether CP management approach leads to water project sustainability.

## 1.6 Research Objectives and Questions

### *Research Objectives:*

Firstly, to assess CP and how beneficiaries of water and sanitation services in rural areas are involved in deciding on matters that affect water projects sustainability, how the approach helps in making the projects sustainable. This will do in compliance of TASAF effective community project indicators.

Secondly, to asses if the community has legitimacy of decision making in community based management water projects. Therefore this study would assess if the beneficiaries were genuinely involved in all cycles of water project implementation.

### *The Research Questions*

The main research question was: How well did communities participating in all cycles of water projects development?

***Sub questions:-***

1. How were the communities mobilized during the initial stage of water project?
2. How was sustainability addressed during the initial designing stage of the projects?
3. To what extent community participated in the implementation of water projects?
4. How the community participate in the management of rural water project?
5. How were the communities empowered to manage water resources?
6. Is the quantity and quality of water improved as a result of water project implementation?

## 1.7 Methodology

The research methodology was mainly qualitative. It evaluated findings arising from primary and secondary data.

### *1.7.1 Sources and Type Data*

This research employed a number of techniques so as to get information and/or data.

#### *A. Interviews*

This was employed to obtain primary data. TASAF, Project and local authorities' officials were interviewed. The respondents were interviewed by using interview guide questions by phone; this is due to my physical absence from the field.

#### *B. Questionnaires*

Questionnaires were employed on this study, beneficiaries of water services in Yombo Dovya and Barabara ya Mwinyi village's projects responded to several questions posted through questionnaires. Also local authorities' officials responded to questions through questionnaires.

#### *C. Desk Study*

For secondary data, desk study was employed focusing on CP in rural water sector. Information was obtained from several websites which related to water sectors. Reference books, reports and journals as well as past research on related field of study were used as sources of secondary data.

## 1.8 Scope and Limitations of Study

The study confined itself in Dar es Salaam, in which two villages in Temeke district were reasonably selected as a case study. This was because Temeke had most of the TASAF supported water projects compared with other districts in the region, hence it was a potential area for getting adequate and relevant information related to the study. Furthermore, the focus has been narrowed to two villages of Yombo Dovya and Barabara ya Mwinyi, focusing on two projects, one project from each village.

The study focused mainly on the selected rural water projects. Most rural water projects in Tanzania are WB funded through TASAF which is a government funding agency. Community based management water projects usually should have village WC which is a condition for all TASAF supported projects.

The limitation of this research was time. I did not succeed to interview some respondents as they were not available when data was being collected.

Another limitation was difficult communication. Temeke villages are situated in remote areas with poor infrastructural system like roads, telecommunications and other electronic communications. This presented a handicap to facilitate many respondents.

## 1.9 Structure of the Paper

**Chapter one** introduces the background of the water sector in Tanzania as well as community participation in Yombo Dovya and Barabara ya Mwinyi

water projects, research problems, importance of the research, research objectives, research questions and research methodology. It also covers data collection techniques which were employed in the study.

**Chapter two** covers conceptual framework and literature review. It explains the key concepts used in community participation.

**Chapter three** is about the case study overview.

**Chapter four** is the heart of this research. It presents data analysis and interpretation.

**Chapter five summarizes** covers researcher's observation and/or findings. Provides conclusion for the study as a whole and gives a number of recommendations aimed at improving the CP in water sector.

# Chapter 2
# Conceptual framework and Literature Review

## 2.1 Introductions

This part contains general terms used in this research paper which were critiqued specifically chosen and defined in order to enable readers to follow the overall account. This study employed a number of concepts which relates to CP in the rural water sector.

"The study of water resources is a fascinating, but too often frustrating, process. It is fascinating because involves a wide range of disciplines such as mathematics, science, geography, geology, biology, political science, meteorology, and even psychology. Water resources management includes the construction of physical features, such as dams and other storage projects, to conserve water during wet period for later use. It can take the form of cooperative legal agreements, negotiated over many years, between neighbours, states, or countries to share scarce water resources. Water management even involves volunteer community groups the inventory a watershed to protect a local drinking water supply" (Thomas, 2003: VI).

Over a billion people in the world lack access to safe water supply. The operational mistakes of the 60s and 70s have now long been recognised and there has been a significant paradigm shift which puts more responsibility for implementing, managing and paying for their water supply in the hands of communities. The belief is that by instilling a sense of ownership, promoting participation and sharing costs, the water supply services will be sustainable.[9]

Hard evidence to support the success of this new paradigm on a large scale is difficult to find. There are numerous small-scale models of successful sustainable community managed water supply projects, but most remain models, and are not scaled up[10].

Two huge challenges now confront the sector. The first is ensuring community projects are sustainable and that adequate institutional arrangements are put in place to support community participation in the long term. The second is finding ways to increase coverage from the current islands of success to larger areas, reaching entire populations. The reason these challenges are so large, is because experience has shown that it is precisely the things that make a project more sustainable that also make it more difficult to scale up[11].

## 2.2 Community

According to UNDP, community development fell out in the late 1960s and early 1970s[12]; primarily because of the wide spread disenchantment with the top down bureaucratic approach to development and its failure to distribute benefits. During this era community came to be associated with coerced labour, although it was then called voluntary.

Community is defined as a group of people with common needs, while UNDP defined community as a group of people living in a geographical defined area, or a group that interacts because of common social, economic, or political interests (TASAF projects handbook, 2005:6).

TASAF and UNDP have given very simple definitions of community, but communities are fluid, and difficult to define, but they do exist. "If sliced finely with analytical razor, a community may look like the sum of individuals who make it up, yet to suggest that `community` does not exist is completely counter –intuitive to any one who has experienced a rural community. Community do contain interest groups and they are made up of individuals, but they are more than interest groups and are more than the sum up of the individuals who make them up. The individual men, women and children, some rich, some poor, do not just co- exist in a shared space. They interact in many different ways, some visible, some invisible. The existence of community is not something that can be demonstrated, it is a philosophical point of departure that is shared, albeit implicitly, by most of the key players" (Schouten and Moriarty, 2003:55:56).

Community responsibilities in water project to include providing required contribution, owning the projects, participating in project security, participating in the implementation of the project activities, monitoring of project activities, receiving and discussing reports, and attending meetings in order to give suggestions and ideas to improve project performance TASAF (Op cit ).

## 2.3 Participation

Participation to development have been proliferating in third world countries since 1980`s, and they are now accepted components of projects design among mainstream donor agencies. The advocates and practitioners of the concept proclaim that people's empowerment, local knowledge and community ownership are indispensable ingredients of project success and sustainability. Under label such as `people's participation`, public involvement `, community participation`, social mobilization`, self help development`, and `grassroots development`, projects have been initiated on smallholder crop and livestock development, irrigation and water supply alike (Bastian and Bastian, 1996: 46:47).

In assessing participation, it is argued that the adoption of participatory orientation in contemporary mainstream development, is a some what peculiar turn of events. Demand for participation has their origin in radical politics. The democratization in development has been a long standing objective of radicals in both the developed and the developing world. The aim of this is to prevent adverse impact of normal development on disempowered actors and to generate receptiveness to the interests of the people. In the third world countries there is widespread resistance to development projects that serve the interests of national elites and donor nations or foreign policy. This has precipitated grassroots movements demanding participation in project planning and decision making (Bastian and Bastian, 1996: 54).

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"Participation is an approach through which beneficiaries and other stakeholders are able to influence project planning, decision-making, implementation and monitoring phases. On the other hand, participation is considered to be a prerequisite for project ownership, successful implementation and sustainability of the projects in question. Participation does not mean acceptance of all ideas from diverse groups. In participation, there is a need to combine indigenous and intellectual knowledge. However, care must be taken so that intellectual knowledge does not influence that of the indigenous" (Kasiaka, 2004: 9).

## 2.4 Community Participation (CP)

> "If we accept that communities exist, then it becomes meaningful to talk of them owning and sharing things and then to speak of the equity with which these are owned or shared. Equity includes both a sense of equality and a sense of being entitled to a share in ownership. Equity is crucial to community management. It implies that, although communities are diverse, everyone in the community should profit in the same manner from a water supply system. It accepts that communities must mean more than rich getting together to buy themselves an expensive water supply system. To deal with this view of community means to acknowledge diversity" (Schouten and Moriarty, 2003:55).

……all people covered by a project, irrespective of gender, caste or class have access to clean water. However, they may not all have equal access to all the benefits which are part of the work. Many important decisions made during project implementation are made by well-off and influential men in the village. Women and poor men are not equally involved, both at times are poorly represented in project management committee. Those who probably have the most to gain from these water supply and sanitation systems, mainly poor women and men should be involved in the management of the water system (Ibid).

Figuere (1991) argues that those projects which involve the widest possible participation of people whose needs are addressed are mostly likely to be effective.

CP is taken to mean that community plays an active role in its own affairs by sharing and exercising political and economic power. The term community participation is sometimes used interchangeably with community management to refer to community involvement in development projects (McCommon et al, 1990: 3)

CP defined as a process by which individuals, families or communities assume responsibility for local problems and develop a capacity to contribute to their own community development (Singh ISS RP, 2005:15). WB experience with CP has given rise to the following definition: an active process where by beneficiaries influences the direction and execution of development projects rather than merely receive a share of a project's benefits. This definition places participation by beneficiaries rather than external personnel, stressing the involvement of beneficiaries in groups, and refers to a process rather than a product. Recent reports of WB and US Agency for International Development

(USAID) and WASH point out that CP may have considerable potential for improving development planning and sustainability (Schouten and Moriarty, 2003:10:11).

The objectives of CP in the context of water project and for the purpose of this study includes; sharing project cost, increasing projects efficiency, increasing project effectiveness, and increasing community empowerment.

### *2.4.1 Preconditions for CP*

Despite the rather complex nature of community participation in the management of water resources, it is possible to identify the preconditions that create the enabling environment in which community management can occur. WASH identified the important preconditions for CP which is likely to include:

1. There must be community demand for improved system. The information required to make informed decisions must be available to the community.
2. Technologies and levels of service must commensurate with the community's needs and capacity to finance, manage, and maintain them.
3. The community must understand its options and be willing to take responsibility for the system.
4. The community must be willing to invest in capital and recurrent costs.
5. The community must be empowered to make decisions to control the system.
6. Effective external support must be available from governments, donors, and the private sector (training, technical advise, credit, construction, contractors etc) (McCommon, 1990: 11).

### *2.4.2 Indicators of CP*

Many organizations have specific processes and standards for requesting and evaluating a project. There will often be norms for assessing the financial benefits, e.g. payback period, internal rate of return, discounted cash flow etc. There may also be standard procedures for presenting a business case and obtaining approval for the capital investment.

The overriding objective of TASAF is empowerment of communities. A project is considered success if its implementation facilitates community empowerment which can be assessed on factors such:

1. Whether communities are participating in decision making,
2. Whether accountability has been enhanced,
3. Whether organizational capacity has been enhanced at the community level,
4. Whether operation and maintenance arrangements are in place,
5. Whether communities are accessing information to make informed decisions.

The main challenge is the capacity of local authorities since TASAF operations were mainstreamed within local government. TASAF is always

constantly involved in building capacity of local government (TASAF management of project handbook, 2008:11).

"Water supply facilities provided without the active participation of the beneficiaries in planning and management are often not properly operated and maintained and hence are unsustainable" (NWP, 2002:21). Ownership of the facilities including water wells is neither perceived to be, nor legally vested in user communities. These factors lead to a lack of commitment to maintenance of the facilities by the users. Communities should be empowered to initiate, own and manage their water schemes including water wells. In order to ensure that communities become legal owners of water supply schemes the following should be undertaken:

1. Legal registration of water user entities should be instituted to ensure that communities are the legal owners of their water supply schemes including water wells,
2. Roles, responsibilities, rights and limits of authority of water user entities should be clearly defined,
3. Communities should be facilitated in acquiring technical and management skills (NWP, 2002: 32, Kasiaka, 2004: 24).

## 2.5 Community Management (CM)

CM refers to the capabilities and willingness of the beneficiaries to take charge and determine the nature of development affecting them. In water and sanitation systems, community management means that the community exercises responsibility for decision making and control over the subsequent execution of these decisions during project development. Schouten and Moriarty defined community management to mean that a community took on the full range of management tasks related to maintaining (and some cases developing) a domestic water supply. These tasks include, setting tariffs and collecting payment, carrying out routine maintenance, and making decisions about system extension (Schouten and Moriarty, 2003:55).

CM as defined above, is concerned with all issues pertaining to responsibility (ownership), decision making authority, and control over development project and system operations.

### *2.5.1 Components of CM*

WASH mentioned three basic components of community management:

1. **Responsibility:** The community takes on the ownership of and attendant obligation to the system.
2. **Authority**: The community has the legitimate right to make decisions regarding the system on behalf of the users.
3. **Control:** The community is able to carry out and determine the outcome of its decisions (Ibid).

### *2.5.2 Levels of CP*

CP discourse described different levels in which beneficiaries of any development initiative should be involved. This can be typically applied in rural water and sanitation projects (Schouten and Moriarty, 2003).

**Table 1: Level of CP**

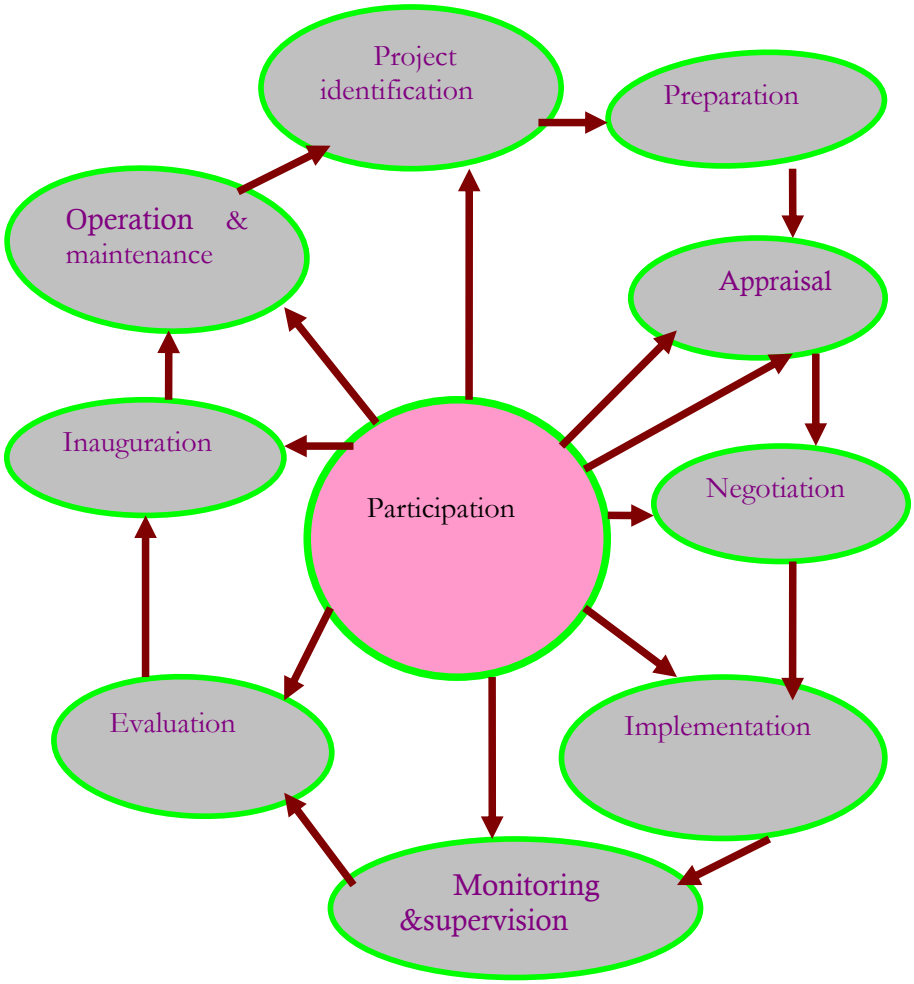
| Levels | Responsibility | Authority | Control | Management capacity |
|---|---|---|---|---|
| 1 | External agency, little community responsibility | External agency; informal community consultations | External agency; limited community participation | Insufficient |
| 2 | External agency, community is responsible for operation | External agency; limited forma role for community institutions | External agency ; moderate community participation | Limited |
| 3 | Joint; community Community responsible for operation and maintenance | Joint; limited formal role for community and agency | Joint; strong community participation and limited community management | Moderate |
| 4 | Community; external support | Community; external support | Community; external support | Sufficient |
| 5 | Full community responsibility | Full community authority | Full community control | High |

Source: WASH technical report No. 67, 1990

### *2.5.3 Water Project Cycle*

There are different levels in which a person can claim to have participated in project activities. Firstly, by attending a meeting even though the individual cannot contribute any idea, or involve actively in dialogue. Secondly, one may actively be involved in supplying local building materials or provide free labour force. Thirdly, a person can participate in the first two stages as well as controlling the program design process. However, to realize project sustainability, this person will have to participate in all stages of the project management as shown in the figure 2 below (Kasiaka, 2004:11).

**Figure 2: CP cycle**




Source: Adopted and modified structure from Kasiaka, University of Dar es salaam (UDSM), (2004).

## 2.6 Community Dynamism

Community dynamics is a phrase that suggests that communities are active, not passive, that they change all the time and that they are full of energy, and perhaps of tensions. Rural communities are not homogeneous; they change over time, context, and political situation (Schouten and Moriarty, 2003: 55).

Schouten and Moriarty further argue that communities exist but this does not mean that they are homogeneous or static entities. Rather, they are melting pots of continuous negotiations, discussion and conflict. They are dynamic and change constantly on their power, balance, size, water availability and so on. Within one community there are rich and poor people, people with high and low status, women and men, old and young people, people from low and high caste, ethnicity, ethnic minorities and majorities, high and poorly educated,

powerful and powerless, farmers and cattle raisers, land owners and landless. Diversity and unclear boundaries are characteristics of communities and they are arguably the characteristics that have the most important impact on CP (Schouten and Moriarty, 2003: 59)

The outside world constantly intrudes on the community. Opinions of religious leaders or national party politics change the opinions and objectives of the groups in the community. There are numerous cases where local politicians, part of patronage, give away water projects to win votes. Numerous also are the cases where politicians use the slogan `water for free` as a way to gain sympathy and votes among rural dwellers (Ibid). Water supply in rural areas is one of the top political agendas of Tanzania. CP in all matters relating to the water project is currently sought to help improve the situation of rural water supply in rural areas.

## 2.7 Water Committee (WC)

WC is essential in strengthening and sustaining established water structures and service. Also WC is important to enable detailed monitoring and finding solutions to various problems confronting the proper functioning of the installed water infrastructures. In this perspective water committees are elected to manage projects on behalf of the whole community. The committee deals with issues such as preparing budgets, procurement of goods and services, and developing necessary action plans. Such activities are normally best done by a small group of people who then are able to give necessary feedback to the entire community members (Claud, 1998).

TASAF community based projects has defined WC as the representative body of a community regarding development projects; therefore the committees are answerable and accountable to both the village council and advisory council committee and to the community. The WC specifically prepares and submits project progress report to the village council and advisory council committee. Communication between the WC and Village council and advisory council committees must be a two-way traffic. It requires trust, commitment and openness. WC is involved in Development (TASAF projects handbook, 2005:6).

## 2.8 Private Sector Participation

Initiatives for water supply and sanitation include the transformation of rural water and sanitation projects and programme into a harmonized nationwide programme; the National Rural Water Supply and Sanitation Programme (NRWSSP) in all rural Tanzania mainland districts by July 2006. The initiative would ensure active participation of communities in planning, implementation and taking full responsibilities in operation and maintenance for sustainability of rural water schemes. It would also strengthen the capacity of all actors at all levels especially at district level and ensure the participation of private sector in all stages of rural water projects (NRWSSP, 2000: 14).

Water supply development and delivery has been dominated by the public sector. The private sector is at infancy and its involvement has been limited

and hence its slow growth. Involvement of the private sector in the delivery of water supply services will improve efficiency and effectiveness and enhance development and sustainability of service delivery. In order to promote Private Sector Participation in rural water supply and sanitation services the following should be undertaken:

1. Participation of the private sector in service delivery should be promoted,
2. An enabling environment for increased private sector involvement, including incentives and legal recognition, should be created,
3. Assistance should be given to private sector and Districts councils to strengthen their capacities,
4. Communities should be educated on the importance of the private sector participation in the provision of rural water supply and sanitation (NWP, 2002:33).

"Private investment does not just include that from large international operators. It also comes from local investors in all parts of the sector, at all levels. Governments and water authorities should recognise the present and potential role of the local private sector and provide a legal framework to encourage greater long-term investment from this source. Governments should include small local operators in their national water supply strategies and service development plans, including incentives for them to improve their services and receive better access to finance. The prospect of private sector participation in its various forms can be a powerful spur to the reform of public water agencies, whether it actually happens or not. Where reforms are being considered or tenders of various kinds are being drawn up, private participation should be included as an option, to be decided on specific grounds of efficiency, cost and effectiveness. Contract and procurement decisions should, as a rule, be made through open and transparent competition, typically on the basis of bidding"[13].

## 2.9 Sustainability

> "Sustainability in this study refers to the ability of project beneficiaries to maintain and sustain project activities, services and any measure initiated by a project so as to last long after the expiring of the funding period. In water projects, we cannot talk of sustainability without mentioning operation and maintenance issues" (Kasiaka, 2004: 41).

Safe and clean drinking water supply is sustainable only if, the water consumed is not overexploited but naturally replenished, facilities maintained in a condition that ensures reliable and adequate portable water supply. The benefits for the water supply should continue to be realized over a prolonged period of time (David and Brikke, 1995: 53).

Richard (1999) defined sustainability as a continued delivery of a particular service. Richard emphasized on the need to involve all stakeholders in consumption and cost recovery strategies to ensure delivery of high quality services and sustainable development projects. Abraham (1998) on the other hand, views sustainability of water projects as a continued flow of water at the

same rate and quality, as when the supply system was designed. To him if water flows, then all elements of sustainability would be in place.

Kimberly (1998) maintains that sustainability in water projects means, ensuring water supply services and interventions continue to operate satisfactorily and they generate benefits over time as expected. He further pointed out that, sustainability is all about ability to operate and maintain initial project service standards. However, to achieve this it has to be planned from the very beginning of the project, so as to ensure prerequisites for long-term sustainability and strategies are aimed at seeing that sustainable projects are in place and are in good working order.

### *2.9.1 Factors Affecting CP and Sustainability of Projects*

Parameswaran (1999) argues that a range of characteristics such as technology used to implement project activities can be effective to CP. The more complex the technology, the less participation. The question of technology has direct link with sustainability of project services especially when operational and maintenance costs are to be met by the beneficiary communities. Another factor according to Parameswaran is on human and financial resources, as they are vital when it comes to meeting operational and maintenance costs. Furthermore, transparency accounts for the degree of CP. For this matter community members will actively participate if benefits are clearly articulated and obtained immediately at the beginning of the project design.

For the case of the water project, people expect to see domestic water points installed or boreholes drilled and in operation. Moreover, administration structure is equally important. Thus, if projects allow users' contribution and if they are flexible, well coordinated and managed well at the local level, with free flow of information then people will automatically participate. Women's involvement in project activities and capacity building are also essential to sustain project-initiated services. This is because in water projects women are the main stakeholders. Therefore, women participation and leadership positions in WC are inevitable for sustainable water projects (Mbugua et al, 1993: 14).

### *2.9.2 Factors that Enhance the Sustainability of Water Project services*

Brikke (1997) argues that sustainability of project services are to be realized if water sources are not overexploited, facilities for operation and maintenance are in place, and funds are readily available. And that both women and men are involved in the design, planning and management of the scheme, and technology choice corresponds to needs desires. Also projects are culturally accepted, spare parts are available and affordable, and support system is in place. Others include capacity building, technical assistance and availability of well-established institution for legal framework.

### *2.9.3 Shortcomings of Participation Approach*

Claud (1998) observes that though CP is essential in ensuring sustainability of rural development projects, it has its own shortcomings. Participatory planning is time consuming and a complex process. The process takes about six months or more to be understood. As a result, beneficiaries expecting to get quick results get discouraged and, that participatory planning is a threat to experts and the community they are serving. The reason for this tendency being that some development experts tend to feel they know better than the community they are serving.

CP is never homogeneous. There are a number of problems that emerge in the cause of participatory approach, such as conflicts of interest among different social groups, cultural, and political constraints (Mbugua et al, 1993: 34). Moreover, suggested that too much mass involvement in decision-making impedes development growth of the on going project. The argument is that it delays decision-making. Thus, participatory planning needs to be facilitated by appropriate expertise so as to determine who should participate, how, what will be the scope of participation and also how much weight should be given to wishes and demands expressed as compared to priorities already set by official authorities (Martinusen, 1999: 22). David and Joseph (2001) also had the view that participation does not mean that all views from people should be taken into account when setting project activities.

There is also the fact that, both regional secretariat and districts councils do not have the capacities to support participatory planning at the lower council level. This situation arises from the fact that most of the staff at the Regional and District levels, have become used to a top- down approach to development. Hence, they are used to planning for and not with the people (Kasiaka, 2004: 12).

# Chapter 3
# Case Study Overview

## 3.1 Introduction

This chapter expounds on the research case study. It is a precursor to the analysis of findings presented in the next chapter. The study focuses are for two water projects implemented in Temeke district. Overview of TASAF as a government funding facility is provided under this chapter. It also provides objectives of community water projects as well as a water policy framework.

## 3.2 The Reasons for Comparing two Projects

This study compared water projects implemented at Yombo Dovya and Barabara ya Mwinyi in Temeke. The following reasons prompted the researcher to compare the two projects.

The time of completion of these two projects influenced the researcher to make the comparisons. Yombo Dovya completed in 2005 while that of Barabara ya Mwinyi is more recent, just completed in 2008.

The difference between the projects completion helped to learn issues the sustainability, in which the early completed project helped to assess its sustainability in comparison with the recently completed.

This helped the researcher to have a real picture on the ground rather than just assessing the newly implemented project, which would not have any technical problem due its facilities being new as well as, people would not have enough information on the newly implemented project.

## 3.3 Tanzania Social Action Fund (TASAF)

TASAF is a government of Tanzania funding facility organisation that provides a mechanism that will allow local and village governments to respond to community demands for interventions that will contribute to the attainments of specific Millennium Development Goals. Toward this endeavour, TASAF contribute to achieving the goals of Tanzania Poverty Reduction Strategy as stipulated in the National Strategy for Growth and Reduction of Poverty[14].

The objective of TASAF is to empower communities to access opportunities so that they can request, implement and monitor sub-projects that contribute to their livelihood linked to MDGs indicators. It is guided by the principles of community demand driven development and follows a bottom up planning and decision making through community empowerment[15].

"The funds from TASAF expects the following outputs: community projects, projects identified and implemented for women and other vulnerable groups, a functioning monitoring and evaluation system, better informed stakeholders, and an improved capacity of facilitation" (TASAF Service Guideline, 2005: 11).

TASAF principles include autonomous bodies, which operate in harmony with other on going initiatives within Local Government Reforming Program (LGRP). To ensure sustainability of fund achievements, TASAF is demand-driven and follows bottom up planning and decision-making approach, does finance community initiated projects directly acts as safety net by targeting vulnerable households and poor communities. TASAF is a non-partisan and a political, modalities to access funds have to be clear, ensures that delivery structure have to speed up operations, adequate and timely technical support transparent and demonstrating fully public accountability, and processing as well as management are cost effective[16].

## 3.4 TASAF Community Project Objectives

The goal of the water sector in Tanzania is to achieve a universal and sustainable accessibility of the people to adequate, clean, safe and affordable water supply services. Realization of this goal will be an important contribution towards attainment of the Millennium Development Goals (MDGs)[17].

Implementation of community water supply and sanitation projects will enable the community to get a number of social and economic benefits including the following:

1. Improved access to adequate, clean and safe water;
2. Improved access to sanitation and hygiene services;
3. Reduced incidences of water-borne diseases;
4. Reduced women and children workload of fetching water from distant places;
5. Acquired knowledge and skills in water care-taking and in operation and maintenance of water schemes
6. Training of community in establishment and management of water funds Skills development in water schemes' Operation and Maintenance
7. Planning and designing of water schemes and sewerage and sanitation systems;
8. Selection and application of appropriate technologies in water supply, sewerage and sanitation (TASAF Service Guideline, 2005:13:14).

## 3.4 Water Policy and Legal Framework

Water legislation is one of the instruments used to streamline social behaviour towards water resources management**.** Within the context of its poverty reduction efforts the GOT has made commendable strides in developing the water and sanitation sector. In 2002 the NWP was formulated with a mission of "integrated and sustainable management, development and use of water resources in Tanzania". MKUKUTA (Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania- National Strategy for Growth and Reduction of Poverty) has recognized that adequate water supply and improved sanitation are necessary ingredients in promoting economic growth and fighting poverty. In order to operational the NWP and to achieve the MDGs for water supply

and sanitation, GOT formulated NRWSSP. The NRWSSP aims at 69 % coverage for rural water supply and adequate sanitation by 2010 and 90% coverage by 2025 (NRWSSP, 2006:13).

"The Ministry of water and irrigation has started to restructure its institutions to be compatible with the requirements of the country's decentralisation and reform policies through measures that are in line with the National Water Policy of 2002, taking into account the provisions of the local government reform policy. The national water sector development strategy has been developed to support re-alignment of the water related aspects of other key sector policies (for example, energy, irrigation, industry, mining, and the environment) with the NWP, and to provide a focus on specific roles of the various actors through clearly defining roles and responsibilities and hence the removal of duplications and omissions. Further, the institutional framework underscores separation of service delivery and regulation to ensure fair play among the various actors and sectors"[18].

The National Water Sector Development Strategy is, therefore, a blueprint for prioritised timely and appropriate interventions to address the Water Sector challenges in the process of achieving all the targets narrated in the national strategy for growth and reduction of poverty by 2010, the MDGs by 2015, and contribute towards achieving the Tanzania development vision targets by 2025. Furthermore, the strategy leads to reshaping and increasing sector financing through a smooth and manageable institutional arrangement[19].

Tanzania is now in the process of preparing new pieces of legislation that will govern the Management of water resources as well as rural water supply and sanitation. The process of preparing new pieces of legislation was preceded by the adoption of a new NWP. The GoT in 2002 adopted the policy recommendations contained in NWP which has a whole part dealing with rural water supply and sanitation. Tanzania has since 1974 been governed by the water utilization (Control and Regulation) Act, 1974. Since then new concepts and approaches to governance and utilization of water resources have emerged that need to be taken on board. NWP replaces the Water Sector Policy of 1991 which addressed sources, use of water in the urban and rural areas, planning and quantity of water supply, financing and maintenance of water operations, authorities responsible for water, and enforcement and coordination policies of the water sector (Kabudi, 2005: 31).

Furthermore the regulatory and institutional framework for water resources management is provided for under the water utilization (Control and Regulation) Act. No.42 of 1974 as amended by the Water Laws (Control and Regulation) Act of 1997 and the Water Laws (Miscellaneous amendments) Act of 1999. They stipulate that all water issues in Tanzania is vested on GOT and the Minister responsible for water development is empowered to regulate the use of water from any source in any area of the country on a national basis, to declare such a source to be a national water supply for the purpose of the Act. The Law sets conditions on the use of water and appoints the Principal Water Officer, to be responsible for setting policy and allocation of water rights at the national level. The Water Act is currently under review. The new Act is expected to establish a mechanism for a more participatory management of water resources. With irrigation an important economic activity in most if not

all of the river basins of the United Republic of Tanzania, a more balanced approach will probably be adopted[20].

## 3.5 Stakeholder's Analysis

As argued by Allen W. and M. Kilvington (accessed at www.landcareresearch.co.nz/research/sustainablesoc/social/stakeholder.asp), Stakeholder analysis for the purpose of this study is to identify project key stakeholders, assessing their interests and the way in which those interests affect project riskiness and viability. The way stakeholders contribute to the project design by identifying the goals and roles of different groups and by helping to formulate appropriate forms of engagements of the targeted population.

Further stakeholders are communities or institutions with interests in a policy, programme or project. Primary stakeholders for this study are immediate communities. Secondary stakeholders are the intermediaries in the process which for this study includes local government, central government (Ministry responsible for water), TASAF, World Bank, DAWASA and many others[21].

**Table 2: Stakeholder Analysis**

| Stakehoder | Responsibility to the Project | Expectations from the project | Potential resources | Assessment of impact |
|---|---|---|---|---|
| Community Members | Implementing, managing and guiding the project. | Improved water supply. | Local skills and knowledge | **A** |
| Women | Identification of water priority. | Improved water supply. | Water points allocations | **A** |
| Local government | Setting up rules and regulations, and/or by law | Sustainability of water project | Finance and Manpower | **A** |
| Ministry of water | Setting up policies. | Implementation of policies. | Policies, strategies, funds. | **B** |
| TASAF | Funding agency for GoT. | The money expenditures are properly adhered to the set standards. | Manpower and Finance | **B** |
| WB | Funding sources | Improve the living standard of the people. | Finance | **A** |
| Private sector(NGOs, CBOs, Universities, and Research Institutions) | Collaboration with the government in resources mobilization. | Improved water services. | Finance, Skills, expertise etc. | **B** |

A = extremely important, B = important: Source: Researcher's self analysis

Source: Personal Design (2008).

# Chapter 4
# Findings and Analysis

## 4.1 Introduction

This chapter presents data analysis and discussion of the findings. The study links community participation and sustainability of water and sanitation service projects. A comparative approach was used to compare data obtained from two TASAF community supported water projects. The chapter is organized in themes, based on research objectives and questions which were used to guide the investigation.

## 4.2 Clarification of Analysis

For the purpose of analysis of this research CP is conceptualized as the process of community participation to be achieved when the community has participated in the planning and decision making of the water project and has revealed basic features that increase its potential to sustain the project's in terms proper functioning after the project it has handed to the community. The activities mentioned below are in line with the concept of participation in rural water supply and sanitation services.

### *4.2.1 CP in Planning and Decision Making*

According to this research paper, this entails consultation with the community before the water projects are implemented and also concern participation by the community in decision making in terms of designing the project, location of water standpoints and so on.

### *4.2.2 Water Committee (WC)*

WC is the most common form of rural water systems through which beneficiaries are supposed to contribute to the costs of the project and share the benefit. According to TASAF the function of WC, in principle are to represent the community in contact with the development partners, organize community contribution in term of both labour and cash, Keeping project records of expenditure and payment, Collecting water tariffs, Convening WC meetings to discuss and decide on issues and problems, and informing the community on regular basis on the decisions reached (TASAF projects handbook, 2005: 7).

### *4.2.3 Community Contribution*

"Many writers on rural CP and the area of water resource consider monetary contributions as amounting to CP" (Claud, 1998). On this study considered any contribution by community members such as cash, labour, ideas

contribution in meetings, planning, materials support and many other forms of community involvement also amounts to CP.

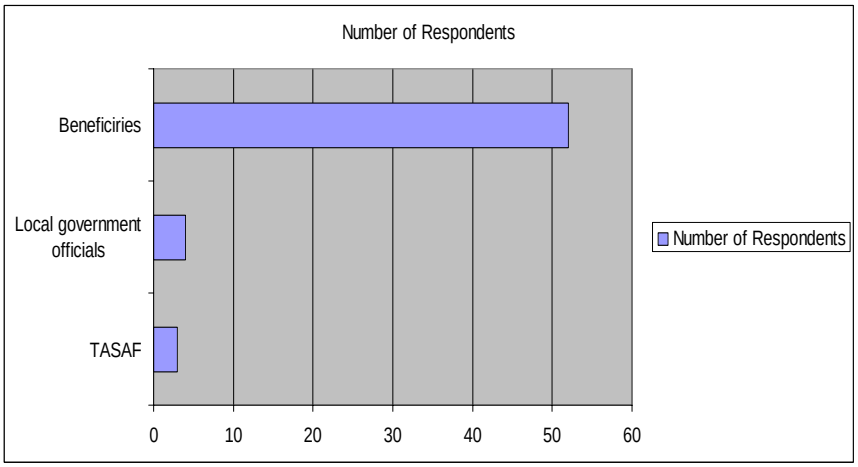
### *4.2.4 Water User Charges*

It means whether the community is paying anything for the water consumed by it. This aspect is not only associated with the operation and maintenance aspect of water project, but also to its sustainability point of view in the sense that the community has enough funds available to carry out the required operation and maintenance costs. "The community which pays charges to the water services gives a good signal that the water supply project will operate for long period of time" (TASAF projects handbook, 2008: 11).

## 4.3 General Respondents

Total of 52 participants responded to the questionnaires of which 45 were beneficiaries from two village's water projects and the remaining local government and project leaders. In addition, 7 officials dealing with the water project from TASAF and Temeke municipality who were interviewed. Likewise, some beneficiaries were also interviewed after filling in questionnaires, particularly when a researcher felt that some respondents might have further useful information. Hence, a total of 59 respondents were involved in this study. The data from the respondents in this study were presented in description and charts and table form. However, charts contain only the findings from project beneficiaries' totalling 52 respondents. The information obtained from officials' respondents was presented in descriptive form to clarify issues.

**Figure 3: Number of Respondents**



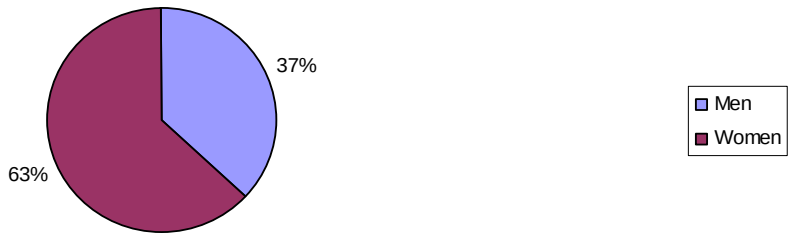

Source: Data through questionnaires, Collected in July, 2008.

Figure 3 above shows that 52 respondents responded through questionnaires from both water projects, 3 TASAF officials as well as 4 local authorities' leaders were interviewed. The number of beneficiary's respondents

was a bit higher than those interviewed at TASAF and LG authority; this is because the purpose of the study was to assess CP and therefore, it was more rational to get more response from the beneficiaries than funding facilities officials, as they could not provide the real picture on the ground.

In terms of gender the study indicates that the number of women were a bit higher than men. This was due to the fact that women were easily found at home during the data collection period. The researcher was interested in dealing directly with victims of the water shortage problem. Mbugua et al, (1993) affirms that under normal circumstances women are the main stakeholders in water projects and are victimised whenever water shortage occurs in their areas of residence. However, men were not left out as were key stakeholders in the sector. Figure 4 below show men and women who responded to the study. A total of 32 out of 52 women responded as well 20 men were interviewed. 4 local government officials and 3 from TASAF were interviewed and 4 of them were women. Therefore a total of 36 out of 67 respondents were women which account 63%, and the number of men which responded was 21 which is 37%.

**Figure 4: Number of respondents in terms of sex**




Source: Data through questionnaires, Collected in July, 2008.

## 4.4 Analysis and Discussion of Major Findings

In establishing a linkage between the participation approach and the sustainability of water project services, the researcher examined planning procedure as well as management and implementation strategies applied by TASAF in two projects. More specifically this entailed examining methodologies used for people's participation, respondents' knowledge about the projects, rationale for prioritizing water projects, and the extent of people's participation. Other issues examined were, the existing WC, people's participation in public meetings, procurement of project materials and finally, people's participation in covering operational and maintenance costs

### *4.4.1 Community Mobilization at Initial Stage of Water Project*

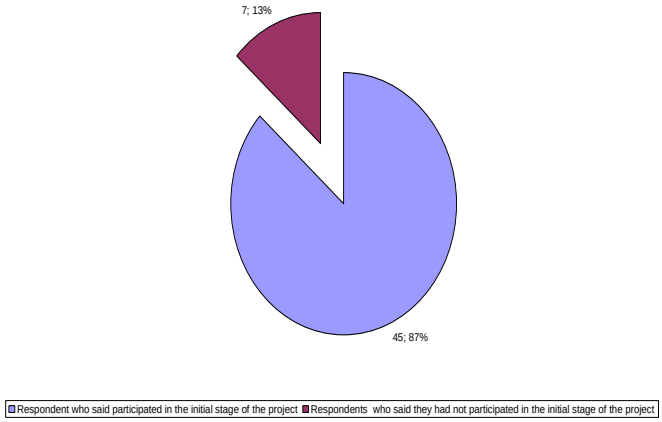
***Public Meeting at Initial Stage of the Project***

TASAF applied participatory methodologies to enhance people's participation. The approach was used in both projects. As the researcher posed a question to a TASAF official representative at the Municipal level on what procedures were followed by TASAF in enhancing and mobilizing people's participation in projects[22].

Moreover, to eliminate the mistrust that existed in government and other development agencies, the TASAF Officer pointed out that TASAF ensured that they implemented the community's needs on time. In an interview with village leaders, it was leant that PRA team from the Municipal stayed with Villagers for about four days.

From the above, it can be seen that TASAF's supported projects in these two villages, participation started at the identification stage of the projects and employed a number of participatory methodologies among them being Rural Appraisal (RUA), Community Mapping as well as Participatory Hygiene and Sanitation Transformation (PHAST).

**Figure 5: Community Priority (initial CP in the project planning)**




Source: Data collected through questionnaire, July 2008

45 out of 52 respondents agreed that there was participation at the initial planning of the water projects as presented on the figure 5 above. This indicates that people were involved in the initial stage of the project. However, 7 out of 52 respondents said they had not participated, and also argued that TASAF and Temeke LG officials were using them as label stamp to get funds. Consequently, they were arguing that there was ineffective participation.

### *Issues Discussed During the Initial Meeting of the Project*

During the initial meeting, people discussed various issues that face their community, and water was given high priority among other social problems[23]. In the meeting they discussed issues such as; location of water points, community contribution and the election of WC, constitutional affairs, and project management after implementation and so on[24].

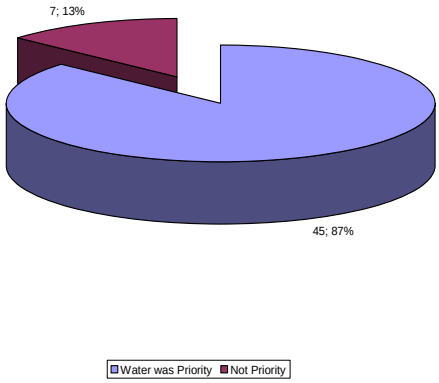
### *Knowledge of Projects and Rationale for Prioritising Projects*

One area of interest that the researcher wanted to establish was people's knowledge about water projects. On this aspect it was clearly spelt out through evidence collected from questionnaires and interviews held that the majority of respondents were aware that water projects did exist in their areas of residence. They also revealed that the people were aware TASAF financing the water projects.

Moreover, Beneficiaries who responded through questionnaires, pointed out that despite the fact that they participated in identifying and prioritizing the water project, they were not consulted to locate the positions of new water wells; the decision was done by LG leaders instead hence their requirements were not taken into consideration. They further pointed out that new water wells were located far from their residence leading to only a few households utilizing the service. This shows clearly that the interest of vulnerable groups especially women were not taken on board during project implementation and management.

According to Kimberly (1998) sustainable rural livelihood is an appropriate approach to any development project. He further insisted that the approach is inherently responsive to people's own priorities, which makes participatory analysis inevitable. This study investigated how communities came to choose water project as their first priority. As far as prioritisation of projects was concerned, it was found that water projects were given first priority in both cases, due to severity of the problem. Many respondents had the opinion that water in their area, was a major problem thus, making it a first priority to all respondents who filled questionnaires and of those interviewed, LG and TASAF officials. 45 out of 52 respondents who were water beneficiaries said that water was their priority among other social problems as elaborated on the figure 4 below. However, only 6 community members who were interviewed said that water was not their first priority. Those who responded against other respondents argued that their societies had other problems which could also be given priority. It has learnt that water was the priority of the community among other problems. This is due to the fact that Temeke district is among of the areas within the country where there is water shortage.

**Figure 6: Demand Driven Project**




Source: Data collected through questionnaire, July 2008

Moreover, TASAF coordinator for Temeke municipality confirmed that the district experienced severe water shortage, and that this made the government seek donor's assistance from World Bank in 2002. Temeke Municipality and DAWASA engaged TASAF to develop community managed

It was observed through questionnaires as well different reports available on Temeke website[25], that before TASAF, the area had no Public water supply put up by DAWASA. This forced community members to draw water from a privately owned borehole. A similar point was made by the TASAF Project leaders for Yombo Dovya and Barabara ya Mwinyi who confirmed that a major water problem had existed before TASAF`s intervention. TASAF used pair wise ranking technique of PRA to confirm this and thus the community priority area.

**Figure 7: Water availability situation before projects implemented**

Villagers in Yombo Dovya in 2001 before the TASAF water supported project implemented. Villagers and mostly women were spending much time queuing for water (Source: TASAF, 20005).

### *4.4.2 How Sustainability was Addressed During the Initial Stage of Water Projects*

Claud (1998) suggests that the design of projects should include elements of sustainability at initial stages, to ensure their sustainability. The study sought to verify whether sustainability issues were addressed at the initial stages, and sustainability involved three strategies.

1. Community contribution inform of labour and cash,
2. CP in operation and maintenance costs; and
3. Enhance locally based administrative structures (ibid).

The three strategies have been discussed below.

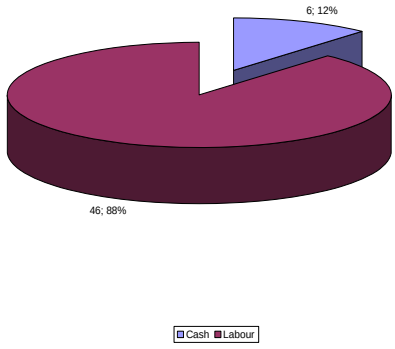
### *Forms of Community Contribution as a Commitment*

"Developing a sustainable water projects required adequate financial resources. Donor and government dependency as the sole provider for most water services has led to poor sustainability of water projects. Although the Government and donors like WB can provide support whenever possible, the communities are encouraged to demonstrate efforts in sustaining their water schemes" (URT, 2002). In this context, the community was required to contribute a portion of capital to water schemes. Water project coordinators revealed that community members contributed both in cash and labour. Cash contributions were required for the initial opening of bank accounts, as well as a way of demonstrating the community's commitment. This was done in both villages where TASAF supported water projects.

According to the LG leaders interviewed, in order make sure everybody contributed manual labour house-to-house visits made at times by the WC leaders to mobilize people to come forward and participate in the project activities. In such situations each ten-cell leader was required to mobilize his/her people to work on the nearby water points.

Each household contributed a flat rate of Tsh.1, 000. As can be seen from respondents on figure 9, 46 out of 52 respondents contributed labour while 6 contributed cash; this is an additional cash contribution apart from flat rate contribution per household. Nevertheless, labour contribution in water projects covered some of the project cost, according to the respondents the main contribution of the community members were in the form of labour. The project activities done by communities for the two projects were the same. In both cases, the activities included preparation of ditches for laying pipes, fetching water for construction, carrying building blocks and other building materials, painting well housing, and cleaning areas for drilling boreholes. Procurement of building materials was an activity done by the communities. This study revealed that community members contributed to the project implementation in both cash and labour. Labour contribution was specifically during construction phase.

**Figure 8: Forms of Community Contribution**




Source: Data collected through questionnaire, July 2008.

Nevertheless, labour contribution in water projects covered some of the project cost. In both Yombo Dovya and Barabara ya Mwinyi water projects, community members were required to contribute 5% of the project cost. The project activities done by communities for the two projects were the same. In both cases, the activities included preparation of ditches for laying pipes, fetching water for construction, carrying building blocks and other building materials, painting well housing, and cleaning areas for drilling boreholes.

### *Operations and Maintenance Cost*

To achieve sustainability of water projects, the communities were required to pay fully the operational and maintenance costs (NWP, 2002). "The plans to

cover operation and maintenance should be discussed during the project formulation stage, to enables communities to choose appropriate technology that corresponds to their ability to operate, maintain and manage the water projects effectively''(NWP, 2002).

Findings from both Yombo Dovya and Barabara ya Mwinyi water projects, indicates that operation and maintenance strategies were pre-determined factors before the projects took off. This commitment was an important condition before TASAF approves the project's implementation.

Amount of money collected in each project to cover operational and maintenance costs. Communities in both Yombo Dovya and Barabara ya Mwinyi projects paid Tsh.10.00 per 20-litre bucket of water drawn. However, not all people, especially the old and marginalized groups were able to pay the agreed amount.

The study found that although water committees had started collecting money for water service charges, the amount collected was small. Only a few people paid the charges as most Villagers draw water from the traditional water sources in the river. This was the source they used before the project implementation. Some community members interviewed in Yombo Dovya argued that they did not see the relevance of paying for water services since they had offered free labour during the project construction. Others wanted to know why they should pay for the water service now as opposed to previous days when water services were offered free. However, it was stated clearly in NWP that water users had to pay for water services to cover operation and maintenance costs. It can be assumed that people were not willing to pay the water service charges simply because they were not told right from the beginning of the project. Issues of water user charges were introduced just after the completion of the project coordinators. This approach contradicted with the TASAF's principles, which required sustainability issues to be addressed at the appraisal stages of the project development. This includes the commitment from the relevant department (for this case Temeke, Municipal Water Department) to show how operational and maintenance costs would be addressed (TASAF, 2002).

Generally, it was clear that lack of strategies to address sustainability on one hand, and free water policy on the other hand, lowered the moral of people paying for the water services. Previous water policies had encouraged free access to safe water. After the government introduced cost sharing in social services people was to pay for water services. Some people had adjusted to cope with these changes especially those living in urban areas. However, people in rural areas still thought that the government is responsible for the provision of social services. Similarly Brikke (1995) asserts that people may be unwillingly to pay for something that they feel should be freely provided.

It was learnt that the community were not aware that they were supposed to pay for water user charges. For example, some were not aware of who was supposed to cover the operation and maintenance costs, others suggested that there was a need to convene public meetings to discuss how to cover the operational and maintenance cost. Yet others suggested that the available VCF may perhaps be used for that purposes. Some villagers thought that TASAF

should cover those costs since they receive free money from WB[26], others wanted to wait until the projects started failing.

This implies that these projects had not shown signs of sustainability, efforts needed in community sensitisation towards collecting water service charges to cover operation and maintenance cost. Even if few villagers pay user charge of Tsh.10.00 per bucket, this amount is insufficient to meet operations and maintenance costs. It is high time now that GOT to sensitize people on issues of cost sharing due to their long time syndrome of free services.

### *Strategies to Enhance Local Based Administrative Structures*

Building of appropriate institutional structures for administration of water services is yet another crucial aspect to achieve water projects sustainability (Pickford *et al.* 1994; Claud, 1998). These may be in the form of either water committees, community-based organizations (CBOs) or water user groups (ibid). For the purpose of this study, the administrative structure was viewed in terms of WC as discussed in the next section.

### *Water Committee (WC)*

WC is essential in strengthening and sustaining established water structures and service. WC is important to enable detailed monitoring and finding solutions to various problems confronting proper functioning of the installed water infrastructures. In this perspective WC members are elected to manage projects on behalf of the whole community. WC deals with issues such as preparing necessary budgets, procurement of goods and services, and developing necessary action plans. Such activities normally are best done by a small group of people who then are able to give necessary feedback to the entire community (Claud, 1998: 41).

Interviews with TASAF officials revealed that TASAF operated through WC. The members of WC were democratically elected in the village general assembly attended by over 70% of eligible voters, and WC handover of completed project to VC, which in turn appointed WC to oversee the functioning of the project. Data obtained from officials revealed that they operated directly from the beginning with the village level based water committees, and this was confirmed by the projects coordinators. The study further showed that with the presence of community water committee community participation merely remained at the level of providing un- skilled labour and cash contributions when required. For this matter, the WC dealt with technical issues and became accountable to their community through feedback meetings. Through interviews however, one of the beneficiaries of the water project complained that: "As far as feedback to the community is concerned, rarely meetings were held. The reason for not convening public meetings was because WC members did not want to be questioned, so meetings were often postponed. That is, once there was an embezzlement of project funds, no meetings would be convened regardless of whether they were scheduled or not".

It was observed (through questionnaires) that among the criteria used to select committee members were education (basic education), residence, gender,

and job accountability, and age, participation in project activities, trustfulness, and willingness to volunteer. This is because most work was done on voluntary basis. Payments were only made when members travelled and it was in form of allowances and transport assistance. Though the mentioned criteria were observed the right candidates were obtained by voting in the public meeting.

As stated above, while Yombo Dovya project worked with WC first, Barabara ya Mwinyi worked with WC, right from the beginning. This implied that Barabara ya Mwinyi were the advantaged project, since it involved the WC during the implementation phase, in WC members shared their experiences, knowledge and skills on water project management as opposed to that of Yombo Dovya project.

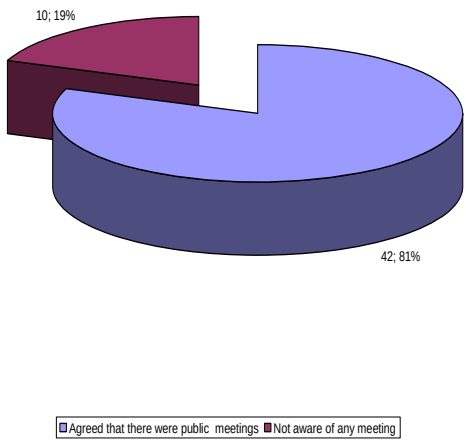
### *4.4.3 CP during Project Implementation*

#### *Public Meeting*

In both water projects, public meetings were held to enable community members identify major problems facing them. This can be evidenced by available meeting minutes for both water projects i.e. Yombo Dovya and Barabara ya Mwinyi. One of the pre-conditions for TASAF support was that project beneficiaries should hold public meetings to be attended by more than 70% of eligible voters. In these meetings communities were facilitated to identify major problems. The first four problems were ranked using pair-wise ranking methodology to prioritize the most pressing needs. In an interview with Temeke Municipal Council project coordinator, Participatory Rural Appraisal (PRA) was carried out for four days in each street. In an interview with local government leaders, they pointed out that after the communities prioritized water being the most need, they were facilitated to elect project management committee, who oversees the implementation of the project to completion. The committee comprised of six to ten members, with a 50% representation of women. The leaders further explained that sector experts from Municipal Council facilitated communities to undertake detailed planning, budgeting, filling application forms, training on project management and simple book keeping.

Respondents who provided extra explanations about the public meeting said that they had no final say in decision making in every meeting. In other words they attended the meeting but they had no authority to affect decisions. TASAF coordinator for Temeke and local government leaders told the researcher that low levels of education of some community members attributed TASAF and Temeke municipal to opt expertise advice than just agreeing with local people concerns. Figure 9 below shows that 45 out of 52 respondents said that there meeting convened and 10 out of 52 disagreed that there were any public meeting. This may be their belief that the meetings were not effective in the sense that they had no authority in those meetings.

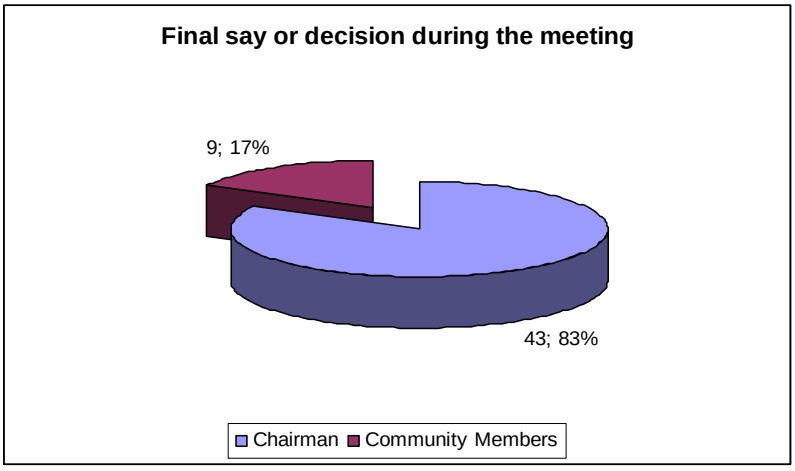
**Figure 9: Public Meetings**




Source: Data collected through questionnaire, July 2008.

The figure 10 below gives evidence that the community members had no decision making authority, and the chairperson had a final say during the meeting. 43 out of 52 respondents said the chairman had the final say in the meting. However, most LG leaders pointed out that the decision was made by the community members which may not be the case.

**Figure 10: Meeting decisions**



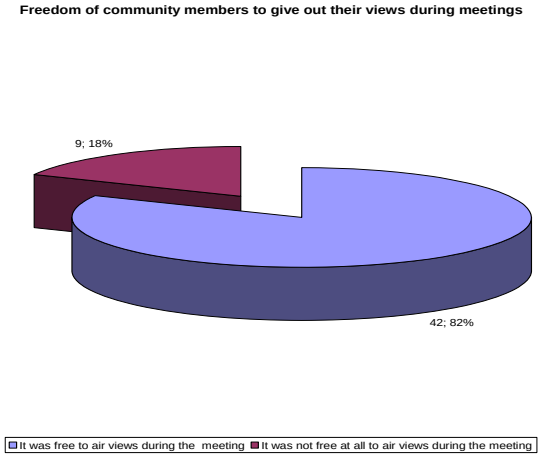

Source: Data collected through questionnaire, July 2008.

## *Contribution to Public Discussions*

"The level of effective participation in public meetings depends on the extent to which the people have been empowered to contribute to discussions"

(Kabukwa, 2001: 38). In TASAF water projects, the study found that individual contributions in public meetings indicated that community members contributed to public discussions. Findings from the TASAF supported water projects in both projects indicated to have contributed ideas in the public meetings, while some respondents said they had no courage to contribute in public meetings although they attended. The figure 11 below indicates that 42 out of 52 respondents said that they were free to air their views during public discussion. This was also confirmed by the meeting minutes and both TASAF coordinators and local government leaders. However, 10 respondents said there was no freedom of airing views, 6 said they attended the meetings but had no courage to contribute towards the discussion. Since not all people can air their views orally, it could be better for the project leaders to introduce a form of written contribution.

**Figure 11: Freedom of airing out views**




Source: Data collected through questionnaire, July 2008.

## *Follow up of Agreed Actions from Public Meetings*

Investigation was made to see whether actions were taken on the agreed points and recommendations during the public meetings. The study revealed that the majority of respondents were not satisfied with their recommendations and proposed actions. This implied that participatory approach took place especially during the implementation for both projects. This was revealed by the minutes found at Temeke Municipal councils as well as through interviews conducted for selected beneficiaries. However, issues which were raised by the community members during meetings were not adequately attended by the responsible authorities. When the researcher asked TASAF officials said that low levels of knowledge for local people was a contributing factor for not taking some of their concerns into consideration.

## *Local Government (LG) Participation*

LG involvement in the process of project implementation is crucial to sustain established structures. Leaders being part and parcel of water project

stakeholders should know what took place at every stage of project. LG leaders had the capacity to mobilize resources, coordinate and support people's initiatives for social and economic development. Moreover, it was these leaders who were authorized to convene community public meetings as scheduled. In this context, WC had no power to do this without the involvement of LG leaders. At the Municipal level, the participation of LG was to provide technical support in project implementation (Buckles 1999: 112).

The study's findings showed that the LG participated through its leaders and Municipal departments to the specific community development and water department. While LG leaders took the organizing role, community mobilization, and physical participation in the project implementation, the Municipal departments were responsible for the provision of technical experts including designing the projects.

### *4.4.4 Community Capacity Building*

"Beneficiaries' capacity building, especially on technical, financial and management aspects is important for the sustainability of water projects" (NWP, 2002: 21). The community should be empowered with technical and managerial skills to enable them to own and manage their water project through establishing water user groups (URT, 2002). In this context, the study examined whether training was offered to villages to build up their capacities, and to identify the groups involved as discussed below.

#### *Training for WC Members, LG Leaders and Water Attendants*

The study found that WC received training including the LG leaders, and water attendants. This training was conducted during the implementation phase to prepare them to carry out the projects once completed. On the other hand, training for the TASAF supported water projects also included VC members. This was done before the implementation of the projects to prepare the WC and VC members to manage the projects. The subjects covered during the training for the TASAF supported projects included simple book-keeping, report writing and management of project resources. In both projects the training covered area including report writing, simple bookkeeping, health, hygiene, and management of water projects[27].

In both cases, training lasted for one week. More focus was on health, hygiene, and sustainability issues. However, ordinary community members did not receive any training at all in both cases, which contradicts with the NWP(2002), which emphasizes that training is to be given to community members for the project management (NWP, 2002).

#### *Training for Water Attendants*

Service training to water project attendants is an equally an important component to achieve project sustainability (Claud, 1998). Water attendants should be selected among community members for convenience of providing water services to the communities (ibid). Hence, they need to be equipped with basic knowledge and skills on how to operate the water system in case of breakdown.

The study for both projects revealed that training of water attendants was done and the training focused on how to operate the system, and how to do minor repairs in case of breakdown. They were however advised that for the major repairs an expert from DAWASA should be sought. However, it was observed that the water attendants were not equipped with enough training as when there was water breakdown, technicians brought from Temeke and DAWASA if there were major system breakdown.

According to TASAF officials, there were two water attendants for both water projects who were each paid Tshs. 20,000.00 (about Euro20.00) per month. It was learnt that, despite inadequate training, low payment water attendants receives made them being not committed to the business of water projects. They also received inadequacy training of just less than a month, while water engineers from Temeke and DAWASA were graduates and receive good salaries.

### *Training Challenges for WC Members and Water Attendants*

It was revealed from the study that WC members and water attendants were not adequately trained. There is a need to increase training of water attendants from one month training to more, than that as well as provide regular and relevant trainings. It was observed that moat water attendants were not committed due to inadequate training on basics of water operations.

## *4.4.5 How the Community Participate in the Management*

Both communities, studied participated in the various forms of managing the water projects. Other forms like WC, Meetings, community contribution as a commitment and other forms already been discussed in previous sessions. To avoid repetitions, only funds management is discussed on this section.

### *Funds Management*

For effective operations and maintenance of water projects, it is important that financial management be in the hands of community members by opening bank accounts (Brike, 1997). In this regard, the study examined how funds were managed after the project implementation phase to cover operation and maintenance cost. The study revealed that financial management was in the hands of community members. Money collected from user charge fees used to cover operation and maintenance cost.

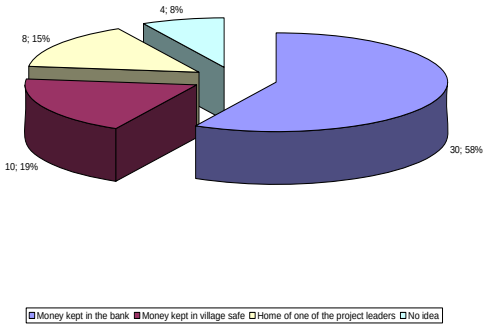
Barabara ya Mwinyi project, the money obtained from water user fee charges were under the control of the community through WC. However, the WC was not holding regular meetings with the rest of community members to disclose the financial matters to the community members. Many respondents said that information was known only by WC members and LG leaders. In both projects it was learnt that money had been kept in the bank.

However many respondents said that they were not involved in financial matters, income and expenditure were not disclosed to them during the public meetings. Figure 12 below shows that 30 out of 52 respondents knew that money were kept in bank, 4 had no idea as well as 10 of them while 8 respondents thought that may be the money were kept in the village safe. This

was also confirmed by TASAF projects coordinator through interview, that one of the conditions of this funding facility to provide money for the project was for the community project to have bank account

**Figure 12: Financial Matters (Community knowledge on Financial Matters)**

Source: Data collected through questionnaire, July 2008.




### *4.4.6 Quantity and Quality of Water Services*

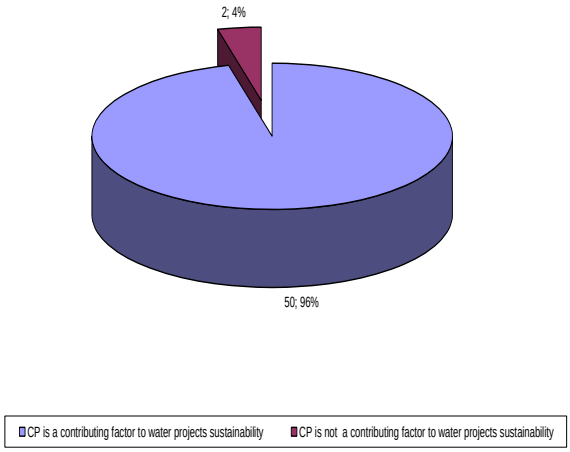
In this subsection the study established the linkage between participatory approach and sustainability of water projects. In so doing, different views from project beneficiaries, TASAF officials and LG leaders were examined. The respondents from both water projects pointed out that, when people participate in planning, they understand the project well. Hence, it becomes even easier to make follow-up on the whole process and progress of the project. Further, they said that the process brings people closer to experts and in case of water system breakdown; it becomes easier to repair because already people understand the procedures. Moreover, people value their efforts therefore; they become careful in operating the system. People will be crazy to destroy the facilities. Whenever breakdown of the system occurs, people feel a sense of ownership of the project and therefore, become part and parcel of the project. Hence, its sustainability is here assured.

When people participate, it is easier to contribute cash willingly for procurement of project equipments, operation and maintenance cost. Also, they will be accountable on income and expenditures of the project. Moreover, they will be careful in operating the system and willingly convene to discuss on project activities when needed. Furthermore people become creative and plan for effective operational and maintenance of the system. More importantly, people feel to own the project and therefore, became part and parcel of the water project. Hence, its sustainability is here assured.

The study therefore confirmed these views that participatory planning lead to sustainability of project services. However, it is sometimes not easy to achieve sustainability of water projects without proper plans on how to operate and maintain the systems when left under the control of the community.

The figure 13 below shows the respondents' views on question 'is effective community participation leads to sustainability of water project?" 50 out of 52 respondents agreed with the statement while only 2 out of 52 women respondents disagreed. Also when TASAF supported projects coordinator interviewed agreed with the statement as well as LG leaders.

**Figure 13: Relations of CP and water sustainability**




Source: Data collected through questionnaire, July 2008.

Functioning of water infrastructure is a sign of achieving sustainability of water projects, proved by the availability of physical water infrastructures and the volume of water flow (NWP, 2002: 32).

### *Functioning and Quality of Water Infrastructures*

The study found that, most water infrastructures were available and functioned properly; this was revealed through interview with water project coordinators and beneficiaries. However it was learnt that the infrastructure was of very low quality.

The major problem learnt from both villages as far as participatory approach concern is low level of knowledge among the people involved in procurement of materials. Most community members were sometimes cheated by the businessmen. Hence, they end up purchasing low quality construction materials. Generally the qualities of infrastructure were poor as can be evidenced on picture below.

**Figure 14: Water infrastructure**

Low quality infrastructure can make the water points being destroyed or equipment be stolen, this water point was captured in Yombo Dovya TASAF supported water project (Source: TASAF, 2008)

### *Technology Used and Communities' Ability to Maintain Water Services*

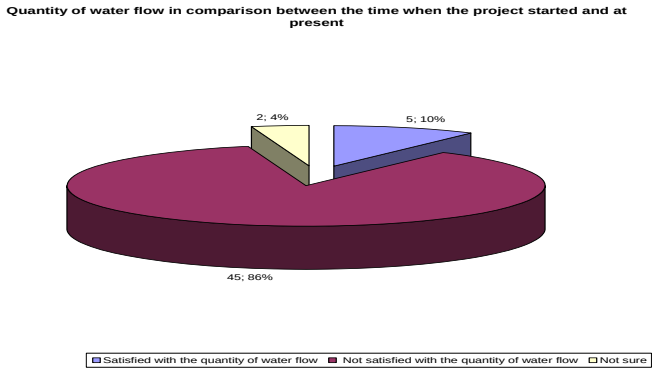
The researcher in assessing whether or not technology used corresponded to the ability of the community to operate and maintain the installed water infrastructure found that in TASAF water projects, there was appropriate and friendly technology used. Regardless the technology used in water projects still some respondents claimed that there were such abilities while the others were not sure if they could maintain the water facilities. The study indicated that the technology used in water projects was appropriate. However, power cuts were a common problem in rural Tanzania.

### *Quantity of Water Flow*

From the figure 15 below shows that 45 out of 52 respondents were not satisfied with the volume of water flow from the hand pump shallow wells both in Yombo Dovya and Barabara ya Mwinyi. However, 5 out of 52

respondents claimed that the number of installed hand pump shallow wells were enough compared to the demand of community members, so the quantity was enough, 2 respondents were uncertain. Another problem was water accessibility and distance, women and children had to go a long distance just to fetch water. It was learnt that unreliable electricity supply was one of the causes that affected the quantity of water flow.

**Figure 15: Water quantity**




Source: Data collected through questionnaire, July 2008.

## *Quality of Water*

It was learnt through the interviews with some beneficiaries that the quality of water was of good quality, it was not salty. This was further evidenced by TASAF coordinator that usually they sent water experts so as to test the quality of water before they start implementing the project. Usually the quality of water is tested through minerals content. According to DAWASA, Yombo Dovya and Barabara ya Mwinyi sources of water are not yet contaminated, but there is that danger in future. From that point of view, the water sustainability can not be guaranteed, and the government should be prepared in terms of resources if the water will no longer be used for human consumption.

# Chapter 5
# Observations, Recommendations and Conclusion

## 5.1 Introduction

This chapter presents observation, conclusion basing on research questions and finally presents recommendations. The purpose of this study was to assess the CP management approach in relation to sustainability of TASAF community supported water projects.

## 5.2 Observations

The case study villages looked CP, especially after the project began to be implemented. Finance was the area which had critical problems of participation. There was no transparency about income and expenditure which were not disclosed by relevant authorities during community public meetings. It was observed that there were misuse and embezzlement of water project funds. Also it was observed that sustainability was at risks due to the fact it was not well addressed at the initial stages of water projects.

## 5.3 Conclusions

Literature review and case studies revealed that the failure of many development projects including that of water were due to ineffective participation of key stakeholders, low capacity of the communities in operation and maintenance of water system and management of water resources. Moreover the literature revealed that demand responsive projects were more sustained than supply driven projects.

Similarly NWP (2002) emphasizes demand responsive elements in order to realize sustainability of water projects. Additionally, NWP insists on hygiene education and environmental sanitation in the implementation of water projects and that in order for the community to function as legal owners of water projects, should form legal entities to manage the water resources was necessary(NWP,2002:31).

Participation must take place in all stages of implementation of the water scheme, from the initiation to planning stage, to implementation, management and monitoring. "Suggested, that all programmes should demonstrate a highly proficient modus operandi concerning people participation. That would be unrealistic. Rather what is needed is to ensure that water supply programmes are seriously feeling their way towards such participation" (Colin and Mog Ball, 1991:1)

CP contributes to all important enabling environments that community requires in order to function. Eventually, the responsibilities of the community should be present at every stage of the project implementation. In this way the

community assumes **responsibility, authority** and **control** over its own development (McCommon et al, 1990: 7).

This research set out to answer research questions, aiming at assessing CP as management approach which attempts to improve the water supply. In order to answer the research questions the researcher came up with some parameters of CP which helped the research to arrive at the following conclusion:

From this study it can be concluded that little attention was given to the community involvement at different stages of projects implementation. Hence there was ineffective CP in both villages as discussed below basing on sub research questions.

### *5.3.1 How Communities Mobilization at Initial Stage of the Project*

Study indicates partial involvement of the community. The communities were only involved at project identification stage. During the subsequent stages, they were not consulted resulting into finished water projects which were not accessible to them. For example, the final decision on where to locate the infrastructure and what form of the infrastructure to be fitted was made by the local authorities' leaders without consulting targeted beneficiaries especially women and other vulnerable groups of water supply shortage. Diversified analysis based on the different stakeholders should be central to any rural water plans. So the communities were not mobilized enough.

### *5.3.2 Communities Capacity Building*

The mechanism used in insuring community empowerment was training of WC members, water attendants and LG leaders. It can be concluded that they were not given adequate training and when they trainings were given, the study duration was too short.

### *5.3.3 Sustainability Issue During the Initial Design Stage*

Study indicates that sustainability was inadequately addressed during initial stage of project identification. Although there were some improvements in water and sanitary services still its sustainability was not at promising conditions, due to regular water systems breakdown, which were caused by inappropriate technology used in construction of water systems. Water projects in both case study projects indicate that are not sustainable and will stop to operate within short period of time.

"It is considered that for water supply systems to be sustainable three actions from the LG have to be rightly in place: instilling a sense of ownership, promoting participation and sharing costs" (Carias, 2007, ISS RP: 42). All these three actions were not adequately addressed well in advance and hence sustainability was at risk. Due to low level of income, communities will have no capacity to maintain the water systems and also there were no sense of ownership. Local people still have a syndrome of treating water projects as belongs to the government as it was in the past.

### *5.3.4 Quantity and Quality of Water*

It has been established that there were no reliable data available on the magnitude and extent of the quantity and quality of water required due to partial involvement of the communities which was done deliberately in order to please donors. From the findings it can be concluded that both quantity and quality of water were not improved even after the implementation of water projects. The objective of the government to provide clean and safe water for rural population by year 2015 as stipulated in NSGRP might be difficult to be achieved if immediate interventions are not taken right now.

### *5.3.5 Extent CP in Projects*

Communities participated through public meeting, WC and contribution in forms of labour and cash as well as other forms of CP. CP in meeting was ineffective while the other side the communities contributed cash and labour as their commitment to the water project was so effective. Since the chairman and other leaders dictated the decisions in the meeting, it can be concluded that there was ineffective CP.

### *5.3.6 CP in Management of Water Projects*

Findings show that the communities were participating in management of implemented water projects. However there were some partial involvements in funds management. The community members were not involved in financial matters. Although people were at least involved in management of water projects, financial matters were not disclosed to them which indicate a sign of money embezzlements.

## 5.4 Recommendations

The following recommendations were drawn from the findings of the study:

Little attention was not given to the community involvement in different stages of projects implementation. Hence CP management approach was ineffective in both case study water projects. Dissemination of information, community member's involvement in all stages of water project implementation and use of local knowledge in implementation of water projects could be taken into considerations, as this would make the projects more sustainable.

**Concert Efforts to be initiated during the planning stage** to collect information on the magnitude and extent of water shortage and number of beneficiaries; this will help to sort out the low level of water supply. Sufficient information should be used in formulating policies and also in measuring progress towards the achievements of set targets and objectives.

**Legal measures** should be taken against project and grassroots local leaders who swindle project funds; this will serve as precedence to other future corrupt and dishonest leaders. The study conducted shows that there was no transparency on the expenditure of project funds which gave an indication of embezzlements which is a critical problem for many development projects in

developing countries. In order of water projects to be sustainable needs strong financial sources to cover operation and maintenance costs.

**Capacity Building**. Proper training and technical support at all levels and for all groups engaging in water project implementation and management should given priority. Water attendants should be given basic technical training which serves a purpose for minor repairs in case of system breakdowns.

**Mobilization.** People should be mobilized so as to build interest in sustaining the initiated project services. Mobilization should start at the initial stage of project implementation. Community members should be well briefed at the beginning of water project about cost sharing.

**Cooperation among the key stakeholders** is important especially among the LG leaders and WC, and between WC and the community, as well as technical experts at the municipal and institutional level.

**Monitoring**. Frequent facilitation, support and monitoring from relevant institutions at different levels of project implementation are important and highly recommended so as to guarantee project sustainability.

**Each CP aspect (WC, public meeting, election of WC member, water tariffs etc)** should be looked on it's individually and a suitable pro-poor, affordable and sustainable solution should be found to fit the community needs. The decision making processes should be transparent and consultative, involving all key stakeholders, to determine how these services will be provided and managed to the standards expected. Similarly NWP (2002) emphasizes on this point in order to realize sustainability of community managed water projects.

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# Notes

[1] http://www.gwpforum.org/servlet/PSP?iNodeID=1345 accessed on 23 August, 2008

[2] http://www.un-documents.net/h2o-dub.htm accessed on 20 September, 2008.

[3] This research paper answers this main question supported by other three sub questions.

[4] http://www.maji.go.tz/policy_acts/index.php accessed on 21 July, 2008.

[5] www.maji.go.tz accessed on 12 July 2008, show that before the NWP came into implementation government had a total control over rural water service delivery.

[6] http://www.worldbank.org/html/fpd/water/rural.html accessed on 11 September, 2008

[7] http://www.worldbank.org/html/fpd/water/rural.html accessed on 12 August, 2008

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[14] http://www.tasaf.org accessed on 9 October, 2008

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[16]http://www.tasaf.org/index.php?option=com_content&task=view&id=13&Itemid=42 accessed on 9 October, 2008

[17]http://www.tasaf.org/index.php?option=com_content&task=view&id=13&Itemid=42 accessed on 9 October, 2008.

[18]http://www.maji.go.tz/documents_storage/Water%20Sector%20Development%20Strategy.pdf accessed on 26 August, 2008

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[22] Information available at www.tasaf.org accessed on 12 September, 2008.

[23] This information was obtained from the meeting minutes.

[24] This was observed from the meeting minutes.

[25] http://www.cja.co.tz/temeke.html accessed on 21 July, 2008.

[26] In reality funds from WB are not free; TASAF receives funds from WB as a loan on behalf of GoT.

[27] This information is available at www.tasaf.org accessed on 10 October, 2008.

# Appendix 1:

Questionnaire

**Yombo Dovya and Barabara ya Mwinyi, Temeke District, Tanzania Social Action Fund (TASAF) Supported Rural Water and Sanitation Project.**

**Introduction**

My name is William Mwakila and I am a Master's student at Institute of Social Studies, The Hague, The Netherlands, pursuing MA in Public Policy and Management.

The Research general title `Community Based Participation` focusing on TASAF supported water and sanitation projects.

I am writing to invite you to participate in research in the form of a questionnaire. A question on this questionnaire is only for academic purposes.

The one asking you questions is a Research Assistant. The questions herewith can be responded by TASAF water project(s) and local authorities' leaders as well as beneficiaries.

Thanking you in advance for your cooperation.

**William M.**

**A. Personal Particulars**

Name……

Sex……..……..……

Ward……..……

Mtaa/Village……..……

Education level……..……..

Occupation……...……..

Position in the project……..……

Phone and/or Mobile…….

Email…….

**B. General Questions**

Do you know that TASAF supported and/or supporting water project?

Yes ( )

No ( )

To what extent water was the problem in this area?.....

Was water a first priority among other social problems?

Yes ( )

No ( )

What do you think motivated TASAF to implement this water and/or sanitation service project in your area?.....

**B. Community Participation in the Project**

5. Did you participate in the initial stages of project planning?

(a)Yes ( )

(b) No ( )

6. Forced to participate?

(a)Yes ( )

(b) No ( )

**C. Community Contribution**

7. What was the community contribution in the project implementation?

(a) Labour ( )

(b) Cash ( )

(c) Both ( )

8. If cash how much per household?

(a) 500/= ( )

(b) 1,000/= ( )

(c) 5,000/= ( ), if more State……

**D. Community Project Committees**

9. Is there an water project committee?

(a) Yes ( )

(b) No ( )

10. How many members in terms of sex?

Women[ ]

Men [ ]

11. Which ways and/or method used to choose the committee members?

(a) Through democratic election ( )

(b) Nominated and/or appointed ( )

(c) None of the above ( )

12. What were the responsibilities of the Community water Project Committee?.....

13. Does the Committee still working effectively?

(a) Yes ( )

(b) No ( )

(c) No idea ( )

**E. Financial and Physical Resources Management.**

14. Who were responsible in handling project resources (money, tapes, channels, dams etc)

(a) Donor ( )

(b) Community ( )

(c) Mtaa/Village government/water committee leaders ( )

15. Where the project money kept?

(a) Bank ( )

(b) In the Village safe ( )

(d) Home of one of the project leader ( )

(e) No idea ( )

16. Do you know the cost of the project?

(a) Yes ( )

(b) No ( )

17. Are you aware of the project budget?

(a)Yes ( )

(b) No ( )

18. Who was responsible with the project budget?

(a) TASAF ( )

(b) Community ( )

(c) Water committee ( )

(d) None of the above ( ), Please mention……

19. Who did the procurement of project required materials?

(a) Water committee ( )

(b) TASAF and/or other donors ( )

(c) Established procurement unit ( )

(d) No idea ( ), any remarks on this?……

**F. Community Meetings**

20. Were there any community meetings?

(a) Yes ( )

(b) No ( )

21. What were discussed in those meetings?

(a) Water Project issues ( )

(b) Non Water issue ( ), Please mention……

22. Are you still participating in such meetings?

(a) Yes ( )

(b) No ( )

23. Is every one free air his/her views in the meeting?

(a) Yes ( )

(b) No ( )

24. Is every one in the community contributing to the public meetings discussion?

(a) Yes ( )

(b) No ( )

25. Are opinions of every one heard and respected?

(a) Yes ( )

(b) No ( )

26. Who had the final say in the public meeting……

**G. Sustainability Issues**

27. Is the quantity of water the same as the time project started?

(a) Yes ( )

(b) No ( )

28. Who is monitoring the project after the donor phase out?

(a) The community ( )

(b) Mtaa/ Village government ( )

(c) Municipal/District/town councils ( )

(d) Central government ( )

29. Do you have the capacity to maintain this project especially after sponsors or donors phase out?

(a) Yes ( )

(b) No ( )

30. If you do not have the capacity where do you get assistance in case there is break down of the system……

31. (i ) Does the community contribute any user fees to cover operations and maintenance services?

a) Yes ( )

b) No ( )

If yes how much ……

(ii) Do all people contribute the same amount?

(a) Yes ( )

(b) No ( )

32. Is the amount collected enough to cover the operations and maintenance services?

(a) Yes ( )

(b) No ( )

33. If not where do you get extra money to cover the operations and maintenance of the system ……..

**H. Problems in Participation of Beneficiaries**

34. Are there any problems encountered in participation of the community?

(a) Yes ( )

(b) No ( )

If yes what are those problems?.....

35. Do you think community participation in planning, implementation and management of water project leads to the effective and sustainable of water and sanitation services?

(a) Yes ( )

(b) No ( )

**Thank you.**

**Interview Question guideline for TASAF and Local government officials**

**INTERVIEW QUESTIONS**

**An overview about the project.**

1) How many water projects in Yombo Dovya and Barabara ya Mwinyi?
2) Out of these projects how many are completed?
3) How the communities did came about selecting a water project to be supported by TASAF?
4) What is the role of the community in planning stage at the village level?

**Participation in project activities.**

5) To your understanding what does it mean by community participation?
6) What steps have been taken by the funding agency to make sure that the project is understood, accepted and institutionalized, given the experiences of people about mistrust of some government and other development agencies officials?
7) What communication methodologies are employed to communicate with the people during all stages of the project implementation
8) How do community participate in the planning processes?
9) Are there enough resources to facilitate participatory planning? Explain.
10) How long does it take to put the people into discussion given their low level of understanding?
11) Are there any problems associated with community participatory planning? If any, mention them.

**Management of Project Funds**

12) Who manage the project funds?
13) Is there any Bank account?

14) Who are the Bank signatories? Who select them and what are the Selection criteria?

**Sustainability of the project**

15) Was sustainability of the project adequately addressed during the designing stage of the project? How?

16) What strategies in place to ensure sustainability of the project?

17) Do you think participatory approach alone leads to sustainability of water project? Give reasons.

18) What do you think are the other important factors to achieve Sustainability of project?

19) Are there any resources set aside to monitor the project Performance after the expiry of funding period?

**Capacity building**

20) Is there any capacity building /training done to the community/project leaders to enable them sustains project interventions? What kind of training and who were involved?

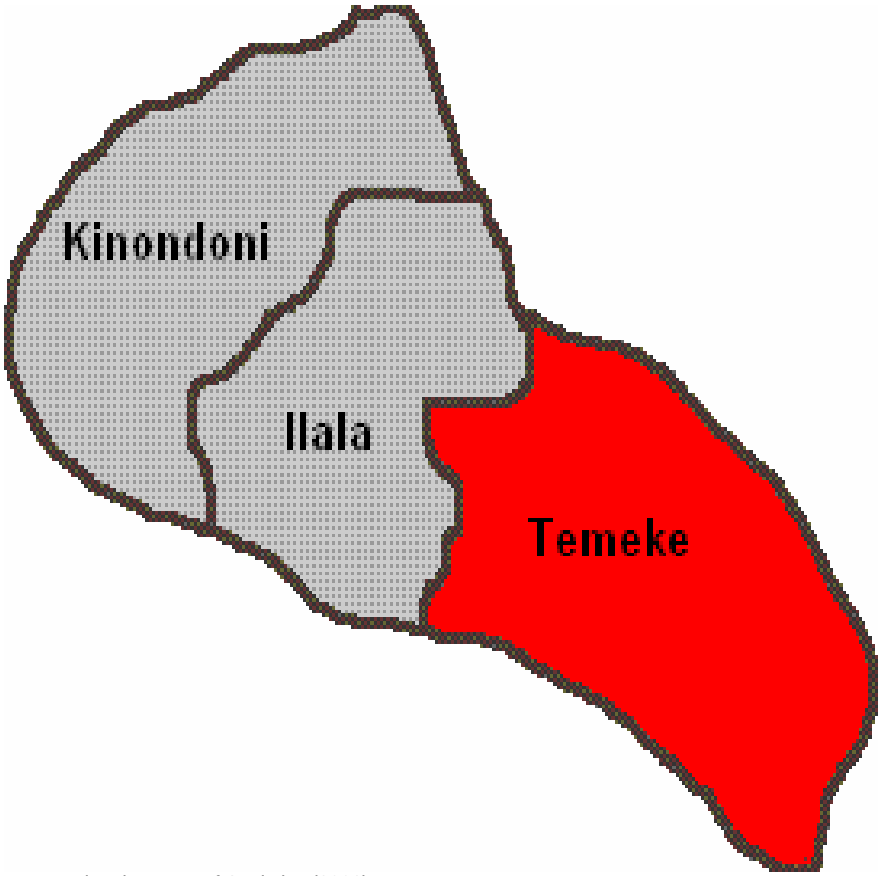
21) Do you think the community have been empowered enough to carry on the project activities? Give reasons.

22) Why some of the development projects fail after the expiry period of funding?

**Thank you.**

# Appendix 2:

**Location of Temeke in a map of Dar es Salaam.**




Source: National Bureau of Statistics (2008)