

**EVALUATING THE EFFECTIVENESS OF WATER USERS ASSOCIATIONS IN
PROMOTING ACTIVE COMMUNITY PARTICIPATION IN OPERATION AND
MAINTENANCE OF RURAL GRAVITY-FED WATER SUPPLY SCHEMES IN
ZOMBA DISTRICT, MALAWI**

MASTER OF SCIENCE IN WATER RESOURCES AND SUPPLY MANAGEMENT

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**UNIVERSITY OF MALAWI
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MASTER OF SCIENCE IN WATER RESOURCES AND SUPPLY MANAGEMENT

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Thesis submitted to the Department of Physics and Bio-chemical Sciences, Faculty of Applied Sciences in partial fulfilment of the requirements for the degree of Master of Science in Water Resources and Supply Management

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December, 2016

DECLARATION

I, Davis Tayanjana Bonga, hereby declare that: Evaluating the effectiveness of Water Users Associations in promoting active community participation in operation and maintenance of rural gravity-fed water supply schemes in Zomba district, Malawi, is my own work and that all sources that I have used or quoted by name have been indicated and acknowledged by means of references. This work has not been submitted before for examination of any degree in any other University.

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CERTIFICATE OF APPROVAL

We, the undersigned, certify that we have read and hereby recommend for acceptance by the University of Malawi, Polytechnic, a thesis entitled *‘Evaluating the effectiveness of Water Users Associations in promoting active community participation in operation and maintenance of rural gravity-fed piped water supply schemes in Zomba District, Malawi’*.

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Date:

DEDICATION

I would like to dedicate this dissertation to my dear wife Ruth and children; Mzati, Mthambi and Cholinga for long standing love and support during the long period of my study.

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ABSTRACT

Water Users Associations (WUAs) have been perceived to be effective in promoting participation in operation and maintenance of rural gravity-fed piped water supply schemes in Malawi (Prisca Kutengule, Community Participation Specialist-NWDP, Personal Communication, 2015). There has been no known evaluation of the extent of community participation in rural gravity-fed schemes managed by WUAs in Zomba district and no analysis of their effectiveness. This study aims to evaluate the effectiveness of WUAs in promoting active community participation in the operation and maintenance of rural gravity-fed piped water supply schemes in Zomba District.

The methodology included literature and documentary review and participatory methods such as household survey questionnaire, Focus Group Discussions (FGDs) and key informant interviews. The effectiveness of community participation in WUAs was analyzed based on the Yorkshire Forward (2000) framework for benchmarking community participation. Household questionnaires were analyzed using IBM-SPSS while the thematic approach was used to analyze qualitative data from key informant interviews and FGDs.

The findings indicate that communities are not playing an active part and have no significant degree of power and influence. The findings also revealed that WUAs are not inclusive and do not provide equal opportunities to disadvantaged groups in the community to participate. The findings further indicate that WUAs have no two-way information strategies and procedures are not clear and easily accessible by community members. Furthermore, the findings have revealed that there is limited support from external agencies to enable communities effectively take control over assets and decision making processes. In summary, the findings suggest that WUAs have not been effective in promoting active community participation in operation and maintenance of rural gravity-fed schemes in Zomba district.

Taking into account the above concerns it is therefore recommended that when establishing WUAs, Government and other partners should ensure that community led sustainability strategies are developed at an early stage to allow for skills and confidence building and planned transfer of assets and decision making processes. It is apparent that community management of rural water supply schemes without external support is not an ideal solution for achieving sustainability. So it is recommended that the District Council and other partners

should ensure that regular monitoring and support programmes are conducted taking into account community capacity needs.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBM	Community Based Management
CDD	Community Driven Demand
DSIP	District Strategic Investment Plan
DWDO	District Water Development Office
FGD	Focus Group Discussions
GFS	Gravity Fed System
GoM	Government of Malawi
GVH	Group Village Headman
ICWE	International Conference on Water and Environment
IDWSS	International Drinking Water Supply and Sanitation
MoIWD	Ministry of Irrigation and Water Development
NSO	National Statistical Office
NWDP	National Water Development Programme
NWP	National Water Policy
O&M	Operation and Maintenance
SEP	Socio-Economic Profile
VDC	Village Development Committee
WATSAN	Water Supply and Sanitation
WASH	Water, Sanitation and Hygiene
WSP	Water and Sanitation Programme
WUA	Water Users Association

DEFINITION OF KEY TERMS

Community	All households and other institutions that use water, contribute to the project cost, and participate in operating and maintaining the water supply system (Sitolo, 2007).
Community Participation	Refers (in this document) to active involvement of community members in developing initiatives, where specified groups, sharing the same Interests or living in a defined geographical location, actively pursue the identification of their needs and establish mechanisms to make their choices effective (Dulani, 2003). It signifies the playing of an active part in a process along with a degree of power and influence.
Community Involvement	Encompasses a commitment to engaging people. People can be involved in A variety of ways and there should be methods of ensuring that everyone has an opportunity to be involved (Yorkshire Forward, 2000).
Demand-Driven Approach	Strategy through which communities are empowered to operate and Manage their water supply services including aspects of water related hygiene during the course of project implantation (NWP, 2005)
Demand-Responsive Approach	A strategy that empowers a community to participate to initiate, choose and implement a water project that it is willing and able to sustain and that Which elite the appropriate response from the sector actors and Stakeholders (NWP, 2005)
Evaluation	Process through which pre-agreed quantitative and qualitative measures are used to gauge performance. For example, in this document the benchmarks constitute the means by which the effectiveness of community participation can be measured.
Partnership	Refers to the formal arrangements established to forward, implement and oversee the implementation of a programme (Yorkshire Forward, 2000).

Sustainability The maintenance of level of services throughout the design life of the water supply system.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter provides background information on the evolution of the rural water supply services management since the International Drinking Water Supply and Sanitation Decade [(IDWSSD) (1980-1990)]. It presents a policy shift by Malawi Government from supply oriented service delivery to demand oriented and community driven approaches to rural water supply service delivery and management. Finally, the chapter presents the motivation of this study, its objectives, research question, significance and limitations/constraints.

1.2 Background

In Malawi, the International Drinking Water Supply and Sanitation Decade witnessed a lot of investments in the rural water supply and sanitation sub-sector. Despite these efforts in providing improved water and sanitation, the facilities provided were not sustainable (Government of Malawi hereafter GoM, 1999). In an effort to coordinate and improve the situation the Government of Malawi carried out a Water Services Sector Study in 1994 which highlighted the factors that affected the sustainability of water services. Lack of community involvement and ownership were noted as paramount problems in the sector (GoM, 1999).

In the early 1990s, the Government through Ministry of Irrigation and Water Development adopted the Community Based Management (CBM) approach to rural water supply services in order to promote community involvement and ownership of water supply facilities (Matamula, 2008). This policy direction of the government is based on the premise that users are the best managers of the resources upon which their lives depend (Kafakoma and Silungwe, 2003). The process involved the development of tools (guidelines, training packages and manuals), capacity building activities at different levels and regular follow ups, participatory monitoring and evaluation activities (Matamula, 2008).

The shift to community driven approaches in the rural water supply sub-sector led to formation of community based Scheme Management Committees (SMC) in rural Gravity Fed schemes (GFS). These structures comprised community volunteers democratically elected from Village Development Committees to discharge operation and maintenance responsibilities of the systems. However, this was being done without any legal mandate and

professional approach (National Water Development Programme [NWDP], 2013). This challenge resulted in the failure of a number of GFS in the country (NWDP, 2013). Realizing the importance of having local institutions with a legal mandate, the concept of Water Users Association (WUA) was adopted as new management model in rural piped water schemes in Malawi. The concept is a shift from the traditional scheme committee approach to creation of ‘mini water boards’ at community level (NWDP, 2013). The WUAs are registered in the Laws of Malawi to acquire legal mandate and also to engage skilled Utility Operators to manage the schemes professionally. These associations are mandated to carry out the following functions (Ministry of Irrigation and Water Development hereafter MoIWD, 2009):

- i. To promote and enforce community ownership of rural water supply schemes to ensure sustainability;
- ii. To raise revenue for O&M of the scheme;
- iii. To safeguard and protect the assets and infrastructure of the scheme from damage and dilapidation through timely and frequent maintenance;
- iv. To supply adequate potable water and improved sanitation services to households within the supply area of the scheme on principles of equity and cost recovery;
- v. To resolve and mediate disputes which may arise amongst members of the scheme in relation to access, usage, distribution of water;
- vi. Cooperate with GoM in running and managing the schemes in accordance with sound business, social and environmental management practices.

1.2.1 Overview of Water Users Association structure

Water Users Associations are responsible for running rural piped water supply schemes. Each WUA has a General Assembly as the apex body. In principle the General Assembly is composed of each and every water user, but in practice there is a committee that is chosen by users themselves within the communities. The representatives are chosen at the Group Village Headman level (collection of several villages). Each village nominates an individual from the village to compete as a General Assembly representative. Any member from the villages under Group Village Headman who wishes attends and partakes in the elections to select two representatives, one male and the other female who will become their General Assembly representative from the pool of nominees running. Running for office and voting in the elections is open to everyone.

Underneath the General Assembly is the WUA Board. General Assembly representatives choose members of the Board from their own ranks. However once chosen as member of the Board, the individual ceases to be member of the Assembly and his position has to be replaced.

Underneath the WUA Board is the secretariat. This is composed of employed management and technical personnel who are responsible for day to day running of the scheme. Ideally the secretariat is composed of a Scheme Manager sometimes referred to as Local Utility Operator (LUO), Cashier, Revenue Collectors, Plumbers and Security Guards (Watchmen).

Each village that is supplied with water has a village water point(s) committee. Members of these committees are chosen by members of such village, ideally through an election. Thus the Water Users Association structure comprises the General Assembly, the WUA Board, Local Utility Operator (secretariat) and water users under the overall responsibility of the District Council as shown in Figure 1.

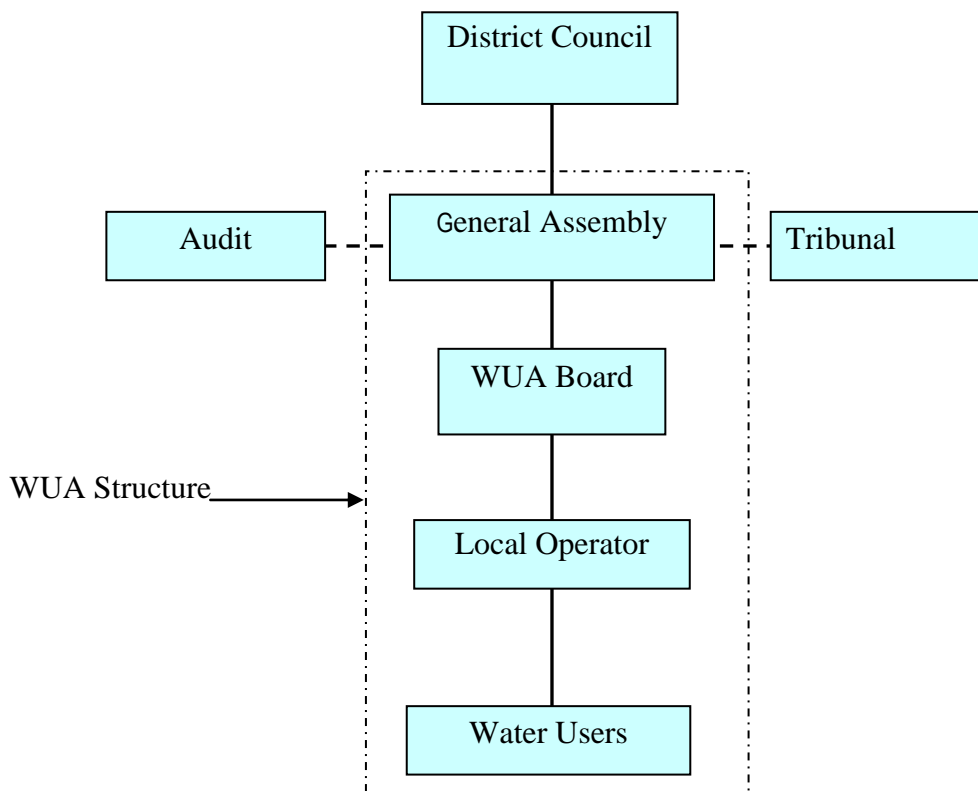


Figure 1: Structure of Water Users Association (Source: *Water Users Association Training Manual, Ministry of Irrigation and Water Development*)

In Figure 1, the dotted lines represent institutions that may not form part of the permanent structure. They are required when needed.

1.2.2 Institutional arrangements for operation and maintenance of piped water schemes in Zomba district

Zomba district is well endowed with surface water resources some of which have been developed into rural piped water supply schemes. In 1980s, the Government through the rural water supply scheme programme constructed 5 gravity fed rural piped water schemes in the district namely; Zomba West, Zomba East, Makwawa North, Makwawa South, and Lifani in order to provide drinking water supply needed by the community (District Water Development Office [DWDO], 2010). During this period, the communities participated through provision of labour (for trench excavation and pipe laying) and provision of locally available materials for construction of communal water points such as river sand, burnt bricks and quarry stones (G. Makasu, personal communication, November, 17, 2014).

For each scheme, a main committee, branch and village committees were elected to organize various parts of the work during the construction. After the construction, the number of committees was reduced to a main committee, tap committees and repair teams. All these committees worked on a voluntary basis (H. Ngaiyaye, personal Communication November, 20, 2014).

The government appreciated that volunteers alone would not maintain the schemes at an acceptable level. Therefore it employed water monitoring assistants and supervisors stationed in the rural areas, backed by engineers at the regional and central level as needed. This system worked reasonably well for some years. However, due to democratic transition and change of government that took place in 1994 the budget allocation to operation of the schemes was substantially reduced leading to gradual decline in functionality of the schemes (Water and Sanitation Programme hereafter WSP, 2002). Apart from this, the previous government promised the communities that in return for their work in construction, they would not have to contribute any cash for operation and maintenance other than for replacing and repairing taps, tap stands and cleaning intakes (H. Ngaiyaye, Personal Communication, November, 20,

2014). So the government retained responsibility for meeting operation and maintenance costs. The post-1994 democratic government has also been reluctant to put into practice its stated principle of charging the users for their water.

In 2008, most taps in the schemes were not functioning consequently the Government with assistance from external support agencies (World Bank and African Development Bank) under NWDP II started rehabilitation of all the schemes in the district (DWDO, 2014). To avoid the repeat of the problems which led to the deterioration of the Schemes, the government decided to devolve management and operations of the rehabilitated schemes to the community. Consequent upon this, the District Council decided to form and incorporate Water Users Associations (WUAs) under the Trustees Incorporation Act to take over the management and operations of rural water supply schemes in the district.

1.3 Research problem

Assessing and improving the performance of rural Water Users Associations in Zomba District has become more and more important as the government through the Decentralisation and National Water Policy, transferred huge responsibilities in terms of operation and maintenance of rural piped water schemes to rural communities. In the past, community involvement meant the local people providing local labour to dig trenches, laying pipes and providing local materials for piped water supply schemes without taking part in decision making processes (Glennie, 1983).

Apparently, no known comprehensive study has been done in the district to assess rural Water Users Associations on how the problem of inadequate community involvement and ownership of water supply infrastructure in the district (Zomba District Council, 2012) is being addressed. As community based water supply management structures, these institutions are mandated by policy to: (i) promote and enforce community ownership of rural water supply schemes to ensure sustainability (ii) safeguard and protect the assets and infrastructure of the scheme from damage and dilapidation (iii) raise revenue for community led operation and maintenance of the schemes.

Therefore, without independent systematic and objective evaluation, it is not possible to identify and consolidate or strengthen good practices, discontinue or modify poor tools and

deal with challenges. Furthermore, without such an evaluation, it is difficult to justify continuous expenditure by the District Council on community based water services institutions such as Water Users Associations.

1.4 Research objectives

1.4.1 Broad objective

To evaluate the effectiveness of Water Users Associations (WUAs) in promoting active community participation in operation and maintenance of rural gravity fed piped water supply schemes in Zomba district.

1.4.2 Specific objectives

The specific objectives of the study were:

- i. To determine involvement of community in shaping plans/activities and all decision making processes.
- ii. To assess participation of all groups and interests in the community and how issues of inequality are addressed.
- iii. To establish whether or not community has access to information for making informed decisions.
- iv. To determine local capacity over control of assets and decision making processes.

1.5 Research question

Within the specific objectives outlined above, the study ought to answer the following question:

Do Water Users Associations in Zomba District promote active community participation in operation and maintenance of rural gravity fed piped water supply schemes?

1.6 Significance of the study

The findings of this study will inform the Government of the Republic of Malawi, the District Councils and the Community on the specific capacity problems of Water Users Associations and the community with respect to planning, implementation and management of rural water supply services. This will help Government and the Councils to design specific capacity building programmes that will help improve the effectiveness of Water Users Associations thereby producing greater user' responsibility in operation and maintenance of public water and sanitation infrastructure .

The local communities, through their Water Users Associations will be able to participate effectively in scheme activities in the district as the government and other stakeholders will know their specific capacity problems and improve on them.

In this study it is assumed that Water Users Associations enhances active community participation in operation and maintenance of rural piped water supply schemes. The most cited benefit of community participation is that it enhances the likelihood of sustainability (Sitolo, 2007). Community participation means that the communities are playing an active part and have a significant degree of power and influence.

1.7 Limitations of the study

Firstly due to time and resource constraints the study only covered two rural water supply schemes in Zomba District such that the results may not be generalised to other schemes in the country. As such a comparative study of similar nature involving for instance schemes from two to three districts in the country would provide a general picture of whether Water Users Associations promote active community participation in operation and maintenance of rural piped water schemes in Malawi as a whole. This would be one way to offset the lack of breadth in a single case study.

Secondly, the tool used in this evaluation was originally developed to assess community participation in regeneration schemes where the institutional mandate and set up is different from Water Users Associations and this necessitated modification or prioritization of indicators. The study therefore did not involve assessment of all the indicators proposed by the Active Partners framework to arrive at its conclusions and recommendations.

Lastly, a limitation of purposive sampling that was used in this study is that, it is the responsibility of the researcher to choose participants and there's a possibility that the researcher could be wrong in choosing suitable participants for the study. However, despite these limitations the study was worth undertaking because it is not what is recorded in the first instance that is important in the evaluation process. Rather it is the conversation that it opens up. The level of detail that the framework offer is necessary in order to hold institutions to account and to be meaningful. Therefore, the study brings to the fore an audit tool that can be used for continuous evaluation and monitoring of how various community based rural water supply institutions are promoting community participation.

1.8 Organization of the dissertation

This thesis is divided into six chapters. *Chapter one* presents background information on the evolution of the rural water supply services management since the IDWSS decade. The chapter further presents the problem that has motivated the study, objectives, research question, the study significance and lastly limitations of the study.

Chapter two presents literature on the nature and concept of participation including definitions. Further, the chapter presents an overview of participation in general and in water services management, then the chapter presents the conclusion highlighting research gap that has motivated the study.

Chapter three presents the description of the study area, rationale for choosing this area then the study design and data collection methods. Lastly the chapter presents how data was analysed and presented including all ethical considerations made.

Chapter four presents the findings of the study. Firstly, the chapter presents an assessment of social economic characteristics of respondents. Secondly, the chapter presents findings on an assessment of the involvement of communities in shaping plans or activities and all decision making in Water Users Associations. Thirdly, the chapter presents findings on how Water Users Associations ensure that all groups and interests in the community can participate and the way in which inequality is addressed. The Chapter further presents findings on an assessment on how Water Users Associations develop ways of sharing information with communities and clear procedures that maximize community participation. Lastly the chapter presents findings on an assessment of the development of the understanding, skills, knowledge and the organizational capacities of the communities.

Chapter five presents a discussion of the socio-economic characteristics of the respondents and findings based on evidence collected on four core dimensions of community participation proposed by Yorkshire Forward (2000) framework.

Chapter six presents the conclusions and recommendations of the study. The chapter seek to answer whether the two Water Users Associations in Zomba district have met the baseline benchmarks of community participation that were used during the evaluation. Lastly,the chapter recommends on how to improve Water Users Associations so as to make them more effective in promoting active community participation.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will discuss the nature and concept of participation, participation in development projects, participation in rural water supply management, characteristics of participation and evaluation of community participation. This includes definitions and a discussion on participation in practice. The discussion on participation is followed by a brief conclusion highlighting the research gap that this study attempts to address.

2.2 The nature and concept of participation

2.2.1 Definition of participation

Much literature on community participation does not clarify what is meant by participation (Hoddinott, Adato & Besley, 2001). Participation is a multidimensional and complex concept (Vos, 2005). According to Karl (2000) the concept of participation has many forms and can take place in different stages of a project cycle and at different levels of society along a continuum from; contribution of inputs to a predetermined project; to information sharing; consultation; decision-making; and empowerment. The concept of participation according to Khanye (2005) can also differ in meaning from one area to another based on cultural norms, amongst institutions based on the institution's particular interest. Hence, participation should not be explained with a single definition or interpretation (Oakley, 1991).

Despite the complexity in definition of the concept, for this research the concept could be understood or defined as the active involvement of local communities in development initiatives where specified groups, sharing the same interests or living in the same geographical location, actively pursue the identification of their needs and establish mechanisms to make their choice effective (Dulani, 2003). The ideals of participation as indicated in the definition are an expression that beneficiaries other than being viewed as passive recipients of development benefits should be looked at as assets and partners in development. It signifies the playing of an active part in a process along with a degree of power and influence.

2.2.2 Typology of participation

In order to understand the various types of participation and to assess its quality and impact over time, participation can be analyzed based on the nature and extent of participation in

development projects or programmes. Arnstein (1969) developed the earliest typology of participation to analyze the nature and extent of participation of citizens in a country. According to this typology, citizen’s participation was divided into eight levels which were arranged in a ladder from manipulation and therapy participation, partnership, delegated power and citizen control.



Figure 2: Arnstein’s Ladder of Participation (*Adapted from: Arnstein, 1969*)

At the ‘manipulation and therapy’ end (Non-participation), the powerful authorities instruct and ‘educate’ the participants. In ‘the informing, consultation, placation’ part (Degrees of tokenism), the powerless are being consulted and informed but the power holders do not act based on views expressed. At the other end ‘partnership, delegated power, and citizen control’ (Degrees of citizen control) the citizen are only able to negotiate with power holders but do not obtain full decision making power (Arnstein, 1969).

The use of ladder also implies that more control is always better than less control. However, increased control may not always be desirable by the community and increased control without the necessary support may result in failure (CAG consultants, n.d). Alternatively, Oakley (1991) distinguishes participation in three broad categories: (a) participation as contribution (b) participation as organization (c) participation as empowerment. Pretty (1995)

typifies participation according to ranges from manipulative participation, information giving to consultative, functional, interactive and self-mobilization as the highest level of participation. While Arnstein ladder of participation is from the perspective of those on the receiving end, Pretty's (1995) typology of participation speaks more to the user of the participatory approach. His typology is equally normative; going from 'bad' forms of participation to 'better' forms of participation.

Table 1: Pretty's typology of participation (1995)

Typology	Characteristics
Manipulative participation	Participation is simply a pretense, with 'people's' representatives on official boards, but who are un-elected and have no power
Passive participation	People participate by being told what has been decided or has already happened. It involves unilateral announcements and administration or project management without any listening to people's responses. The information being shared belongs only to external professionals.
Participation by consultation	People participate by being consulted or by answering questions. External agents define problems and information-gathering processes, and so control analysis. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to take on board people's views.
Participation for material Incentives	People participate by contributing resources; for example, labor, in return for food, cash or other material incentives. Farmers may provide the fields and labor, but are involved in neither experimentation nor the process of learning. It is very common to see this 'called' participation, yet people have no stake in prolonging technologies or practices when the incentives end.
Functional participation	Participation seen by external agencies as a means to achieve project goals, especially reduced costs. People may participate by forming groups to meet predetermined objectives related to the project. Such involvement may be interactive and involve shared decision-making, but tends to arise only after major decisions have been made already by external agents. At worst local people may still only be co-opted to serve external goals.

Interactive participation	People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right, not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. As groups take control over local decisions and determine how available resources are used, so they have a stake in maintaining structures or practices.
Self-mobilization	People participate by taking initiatives independently of external institutions to change systems. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Self-mobilization can spread if government and NGOs provide an enabling framework of support.

Overall, the nature of participation can be simplified into two ends to one continuum: passive participation at the lower level and active participation at the highest level (Scheyvens, 2002). Passive participation implies participation as a contribution to the implementation of a project without control over the resources and decision-making. The participants assume there is to be receptive and attentive to the suggestions of the proponents (Gonzalez, 1998). Oakley (1991) also categorizes passive participation as a means. This implies that participation is only used as a tool to achieve better project outcomes and equity or to improve project sustainability by developing a sense of ownership of the people concerned (Vos, 2005). However, Oakley (1991) argues that participation as a means is only a short term exercise that will not lead to sustainability of participation after project is completed.

In contrast, active participation means people concerned have access to information necessary for improving their livelihoods and are directly involved in the process of decision making (Scheyvens, 2002). According to Gonzalez (1998), in this type of participation participants and external agents have consistent interaction, involvement and collaboration in discussion and decision making and hence the ideas and suggestions of both participants and external agents are given equal consideration after a process of compromise and consensus. Oakley (1991) categorizes this type of participation as an end. Participation as an end is an active and dynamic form of participation that leads to increasing role of local people in decision making at every development activity (Oakley, 1991). In other word participation as an end can be

seen as empowerment (Cleaver, 1999). Brett (2003) defines this type of participation as: ‘a way of expanding people’s capabilities, increase their self-esteem, and improve performance by obliging agencies to involve users in decision making through participatory research, and subjecting their activities to direct popular control’.

2.3 Characteristics of community participation

Based on the literature reviewed in this study a general picture of standard features of community participation that will lead to greater likelihood of project sustainability are:

Initial meetings- These will give opportunity to the community to exchange information about what the intended participants actually need and forum of learning and listening for the external agents. The first meeting is needed in order to explain the project’s objective before it begins and also an opportunity to the community to refuse or accept the project (Kleemeir, 2000).

Decision making- The community should have a say in decisions about actions that affect their lives. They should be included in the decision making process such as in initiation, planning, implementation and evaluation of the projects.

Planning- Participation offers new opportunities for creative thinking and innovative planning and development. Participation is understood as giving a few influential people a voice in local decision-making and planning, whereas the most needy and deprived, who may be the majority of the community, are not even consulted, let alone given part in the process (Johnston, 1982).The community should therefore be involved in the planning stage of the development project.

Implementation- The most important aspect of community involvement at the implementation stage is to develop a sense of ownership for long term sustainability.

Empowerment- Empowerment increases the capabilities of the poor and holds accountable the institutions that provide them. Empowerment is usually seen as a key for good life, increases human dignity, good governance, project effectiveness and improved service delivery (Narayan, 2002). It entails building capacity of the community so that they can make rational decisions and undertake meaningful input for natural benefits (Meshack, 2004).

Mobilization- Participation entails self-mobilization, self-reliance and empowerment of the development process. Mobilization promotes community participation in control and decision making of all actions affecting community as a whole.

Evaluation- It has been recognized that participation in evaluation is important but rarely carried out (Cohen & Uphoff, 1980). If direct methods of evaluation are not available,

communities will invariably evaluate projects indirectly through using patterns of facilities provided (Cohen & Uphoff 1980).

Effectiveness- According to Breuer (1999), participation helps target the resources more effectively and efficiently. Hence involving communities in decision making will lead to better decisions being made, which are more appropriate and more sustainable because they are owned by people themselves (Breuer, 1999).

Skills and knowledge- By participating, the community gains skills and knowledge and thus sustain the project. Community participation teaches communities how to solve conflicts and allows for different perspectives to be heard, enhances rural people's learning potential and the ability to access and handle information.

2.4 Evaluating community participation

In recent years, a number of attempts have been made to develop tools to assess the effectiveness of community participation. One such attempt was made by Burns and Taylor (2000). These authors provide tools and appraisal exercises which can be used to measure:

- i. The history and patterns of participation;
- ii. The quality of participation strategies adopted by partners and partnerships;
- iii. The capacity within partner organizations to support community participation;
- iv. The capacity within communities to participate effectively; and
- v. The quality of participation and its outcomes.

Similarly, Yorkshire Forward (2000) provides a benchmarking system for measuring the effectiveness of community involvement. Although developed within a regeneration context, the principles behind the benchmarks have general relevance to community participation and can be used to develop an understanding of community participation. It helps to focus attention on what still needs to be done to maximize community participation. Wilson and Wilde (2003) describe the starting point for the research which generated the benchmarks as being recognition of the heterogeneity and elaborate nature of communities and the need for qualitative analysis that measures progress from diverse perspectives'. The resulting framework is based on four themes/dimensions of community participation, broken down into 12 benchmarks (see Table 2);

- i. Influence: how institutions involve communities in the shaping of plans/activities and in all decision making.

- ii. Inclusivity: how institutions ensure all groups and interests in the community can participate, and ways in which equality is addressed
- iii. Communication: how institutions develop effective ways of sharing information with communities and clear procedures that maximize community participation
- iv. Capacity: how institutions provide resources required by communities to participate and support both local people to develop their understanding, knowledge and skills

Such frameworks provide a useful means of understanding and appraising community participation, particularly since, to a degree, they take into account some of complexities associated with categorization such as inclusivity and heterogeneity of community, different power and issues of process and capacity. However, some would question the premise on which they appear to be founded: those higher levels of community participation are always appropriate, desirable and beneficial (CAG Consultants n.d).

2.5 Community participation in development projects

Community-driven development as adopted by the UNDP-World Bank Water and Sanitation programme and the World Bank respectively are derived from the participatory discourse (UNDP-World Bank Water and Sanitation programme, 1999:6-8). Case studies on development projects emphasize that it is important that communities have control over project initiatives, decisions, (financial) resources and upstream planning (World Bank, 1996). Often, so-called participatory projects do not actively involve stakeholders (especially primary stakeholders) in decision-making and project implementation. This can lead to unsuccessful development projects. Blackman (2003) argues that stakeholder participation in decision-making throughout the whole project cycle (project planning, implementation, monitoring and evaluation) is likely to result in:

- i. Improved effectiveness as participation increases the sense of ownership of the project by beneficiaries, which increases the likelihood of project objectives being achieved.
- ii. Enhanced responsiveness because if people participate at the planning stage, the project is more likely going to target effort and inputs at perceived needs.
- iii. Improved efficiency because if local knowledge and skills are drawn on, the project is more likely going to be of good quality, stay within budget and finish on time. Mistakes can be avoided and disagreements minimised.

- iv. Improved sustainability and sustainable impact as more people are committed to carrying on the activity after outside support has stopped.
- v. Empowerment and increased self-reliance as active participation helps to develop skills and confidence amongst beneficiaries.
- vi. Improved transparency and accountability, because stakeholders are given information and decision-making power.
- vii. Improved equity if the needs, interests and abilities of all stakeholders are taken into account.

Many studies including the ones that this paper cites assume that projects that adopt a participatory approach ensure that everyone in the community participates. In practice that may not be true. In a study of community forestry in India and Nepal, it is reported that women were systematically excluded from the participatory process because of weak 'bargaining' (Mansuri and Rao 2004, World Bank 2002 as cited in Sitolo, 2007). Furthermore, in other studies by Mansuri and Rao (2004) as cited in Sitolo (2007) such as the evaluation of social funds in Jamaica, Nicaragua, Zambia and Malawi, wealthier and better net worked individuals or what the World Bank call 'prime movers' dominate the decision making process. However, elite domination of development projects decision making is known to be inevitable particularly in rural areas, where the elite are often leaders who can embody moral and political authority (Sitolo, 2007). In the end elite domination may, however, be in conflict with the broad-based democratic participation that the Demand Responsive Approach (DRA) or Community Driven Development (CDD) envision (Sitolo, 2007). Therefore wider community awareness that the elite dominate and form project rules to which the beneficiaries have to abide may discourage other people's participation in the project (Mansuri and Rao, 2004 as cited in Sitolo, 2007). Further studies present empirical evidence that show that while increased community participation is beneficial in decisions that require relatively more local inputs/knowledge, it is detrimental to project success in decisions requiring investments that the community is at a disadvantage at providing (Khwaja, 2004).

However participation in setting the development agenda and participating in and overseeing its implementation, which takes into account the needs and aspirations of diverse groups is critical in development. This increases the probability of equity among the different groups in how the development processes benefit them.

2.6 Community participation in rural water supply management

Water supply management is pivotal to ensuring sufficient quality water for communities. As a result, water management has emerged as an essential part of community life (Kamruzzaman, Said & Osman, 2013). Roark, Hodgkin and Watt (1993), defined water supply management as marshaling of resources to plan, direct, monitor and evaluate the operation and maintenance of a water supply and sanitation systems.

Water supply management models vary with technological options used and geographical location (Kamruzzaman et al, 2013). In the rural water supply sector the most prominent model is the community management service (Water, Engineering and Development Centre [WEDC], 2003). Community management service as a demand driven community-led approach incorporates participatory method and decentralization strategy to successfully deliver rural water supply services better than supply- driven Government-led models (Lockwood and Smits, 2011). A study by Misra (2011) in the Swajal project in Uttar Khan, India proved that the replacement of supply driven approach to demand driven approach with community involvement at the helm is not only applicable but replicable as it led to improvement in drinking facilities and empowerment of women in the villages. Other research based findings show that given changes and increasing diversity in the management of rural water supply and sanitation (WATSAN) schemes, it is apparent that community management of rural water supply schemes without external support is not an ideal solution for achieving sustainability (Mtinda, 2006). The study further revealed that community management of rural WATSAN schemes is a good idea if implemented where there is demand-driven community involvement right from the beginning and that with the right capacity building, community management can deliver reliable and sustainable water and sanitation services. Other studies on the concept reveal that participation approach leads to water project sustainability only when elements of project sustainability are considered at the early stages. Such elements include operation and maintenance costs and willingness of people to contribute. Also capacity building is considered to be significant, which include training of community groups to carry over project activities (Mwakila, 2008).

The second principle of the agreement stemming from the International Conference on Water and Environment (ICWE) states that: Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels. The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate

level, with full public consultation and involvement of users in the planning and implementation of water projects (McGarry, Mugisha, Hoang-Gia, Unhelm, & Myles n.d).

Participation and inclusion go hand in hand. Participation of different individuals who have a stake and are in one way or another affected in relation to water resources is critical to make sure that their interests are taken on board. However participation only becomes worthwhile if it is inclusive thus includes as many people as possible from divergent groups. If participation is not inclusive it defeats the whole purpose as it ends up being cosmetic and goes against the principle of equity. Noteworthy participation and inclusiveness should span the whole range of the water sector intervention starting from needs assessment and situation analysis, planning, implementation, management, monitoring and oversight but also evaluation and more importantly decision making. In many instances participation is done cosmetically so as to have a semblance of participation in line with donor or project requirements or just to be politically correct. This in turn affects project outcomes and ability of the intervention to bring about improvement in livelihoods thus development (Wilde et al, n.d). Effective and inclusive participation requires that project leaders should recognize the different constituencies within society and should strive to ensure that all are involved in the progressive development of their communities and neighborhoods.

As part of participation there is also need to include beneficiary communities in management structures and systems of local community affairs including those within the water sector. Other than ensuring management efficiency it also contributes to capacity building within the community. Capacity building is in turn a critical element in ensuring sustainability. Furthermore if people are not given the opportunity to participate, some of them engage in withdrawal and this in turn affect efficiency. Lack of participation also affects the ability of the interventions to be responsive to people's interests but also challenges.

There is also need for improvement of communication systems so that people are well aware of what is happening at any stage and can suggest alternatives if they notice or face challenges. This communication has to be continuous and deliberate. Information including major decisions that are pending should be communicated to the people so that they can participate in the decision making process. On the other hand decisions made also have to be communicated to the people so that they own them to minimize conflicts. Furthermore, records should be made publicly available but also communicated in simple and understandable forms. This helps minimize suspicions, speculations and conflicts, improve

efficiency, accountability and ensure transparency. If communication is poor problems arise as it leaves room for suspicions and speculation. It also leads to conflicts as people do not own to decisions made. Furthermore it may make certain sections engage in self-exclusion as they feel they are not part of the wider intervention.

Thus it can be observed that good and effective governance systems in the water sector are critical to ensure proper functioning of the water sector, improve access to and benefit from water services by all for improvement of livelihoods but also to ensure sustainability of the water resources. Further to that the way the water resources are planned for and how such plans are implemented and resources managed and the systems put in place for such will reflect the needs and interests of different sections of society thus being inclusive

It is evident that the central theme is increment in inclusion and participation by the public and their representatives which aim at ensuring improved efficiency in delivery of public goods including services such as water in the present case, for the good of the public. It is proper that local people should be offered a platform to participate in management of social services, among themselves with external players helping through the provision of necessary resources both technical and material so as to improve their livelihood and ensure development. Such an enabling environment and continued interaction would lead to improvement in efficiency and effectiveness of local governance and management of development interventions including water supply. The importance of participation is that it ensures the involvement of the public in development activities by making sure that they set their own development agenda according to their needs and aspirations but also make their own decisions and become responsible over their own resources, water supply in the recent case.

2.7 Conclusion

It is often argued by rural water experts that community participation is fundamental to success of water supply in rural areas particularly developing countries (Schouten and Moriarty, 2003:8, as cited in Mwakila, 2008). However, as pointed out in earlier sections, community participation leads to success of water projects only when elements of sustainability are considered at the early stages. A report by Madulu (2003) as cited in Mtinda (2006) emphasizes that there must be common features for success of the water supply services under a community management approach as identified by Doe and Khan (2004) as cited in Mtinda (2006):

- i. The communities are usually rural with a small proportion and rudimentary occupation such as farming
- ii. Communities participate in decision making, planning and service establishment
- iii. There is a strong presence of social pressure which is expressed in the ownership of the development project

It is however noted that communities cannot do all this by themselves without support; they need to be empowered on how to manage the water projects in terms of governance and management skills.

Thus far, the focus of research has been on the institutional aspect of rural water supply management in the developing world. However, limited attention has been given to research on effectiveness of specific community water supply management models such as Water Users Associations in fostering user participation.

CHAPTER 3

METHODOLOGY

3.1 Study design

A case study evaluation design was employed to evaluate the effectiveness of WUAs in promoting active community participation in the operation and maintenance of rural gravity-fed piped water supply schemes in the study area. Case studies are an excellent way to collect anecdotal evidence of programme effectiveness, to increase understanding of how an intervention is working in a particular setting, and to inform a larger, more rigorous study to be conducted later (Paulsen and Dailey, 2002). A case study of this nature helped the researcher to investigate the expected outcome of a programme by looking at two cases where an intervention (Water Users Associations) of similar nature was implemented. This comparison was done in order to offset the lack of breadth in a single case study.

The case study employed both qualitative and quantitative methods of approaches. The quantitative approach focused mainly on quantifiable data in terms of numbers and measures that can be analyzed statistically. Qualitative approach was generally interpretive (Creswell, 2000). The research made an interpretation of data by developing a description of an individual or setting, analyzing data themes or categories and making an interpretation or drawing meanings personally or theoretically.

In order to evaluate community participation in operation and maintenance of rural piped water schemes, the study employed an evaluation framework adapted from the Yorkshire Forward (2000) which is a benchmarking system for evaluating community participation. The framework is based on its four themes/dimensions of community participation broken down into 12 benchmarks each with own measurable indicators. The indicators suggested by the framework might not necessarily represent the best possible indicator for a selected dimension. This is because they also use the criterion of availability of information of the indicator for selection of the indicator. So the study prioritized indicators that were deemed appropriate for the task. However, although developed within a regeneration context, the principles behind the benchmarks have general relevance to community participation (CAG Consultants, n.d). The purpose of the framework was to provide evidence that the study need to collect in order to gain some understanding about the nature of community participation in

rural water supply schemes in Zomba District, compare the different views of different stakeholders on these issues and assess whether baseline benchmarks have been met.

During the initial implementation stages (including community events and workshops) of the benchmarks, the speedometer indicator model was employed as a tool for scoring each benchmark whereby a Speedo indicator on a dial anywhere between 0= 'not doing anything to achieve aim' to 100 ='fully achieved aim' (Burns and Taylor, 2004). For example, with the speedometer indicator in terms of community consultations during formation of WUAs the community members may judge that there has been very little in which case they are likely to draw the speedometer line between 0 and 20 km/h but where they feel the aim was fully achieved may draw the line between 70 and 100km/h. However, in this study scoring was done using percentages where 0% meant 'not doing anything to achieve aim' and 100% meant 'fully achieved aim'. In addition to this, a score of 50% was regarded as meaning 'at least something was done to achieve aim' hence the minimum score to arrive at the conclusion that something was done to achieve aim.

Table 2: Yorkshire Forward Community Participation evaluation framework

Core dimension 1: Influence -how institutions involve communities in the shaping of plans/activities and in all decision making processes.				
	Benchmark	Indicator		Data collection method(s)
1	Community is recognised and valued as an equal partner in all activities	i)	Community members are involved in the identification, evidencing and interpretation of community needs	Household interviews & Focus Group Discussions
		ii)	The involvement and ideas of community members are an integral part of the WUA plans	Household interviews
		iii)	The existing capacity within communities to deliver projects is recognised	Household interviews
2	There's a meaningful community representation on all decision making bodies	i)	Community representatives are elected by, and accountable to the wider community	Household interviews
		ii)	Community representatives reflect the diversity of local community	Household interviews
		iii)	Decision making is open and participative	Household interviews & Focus Group Discussion

3	All community members have opportunity to participate	i)	A range of creative approaches are taken to engage community members and include those who are more isolated and/or active in groups or networks	Focus Group Discussions
		ii)	Community members understand the scope of their influence and are informed of their outcomes	Household interviews Focus Group Discussions
		iii)	Barriers to participation are recognised and addressed	Focus Group Discussions
		iv)	An increasing number of community members participate in a meaningful way	Household interviews & Focus Group Discussions
4	Communities have access to and control over resources.	i)	Community members can easily access decision makers and scheme workers	Household interviews
		ii)	An agreed percentage of scheme revenue is committed to community led projects	Focus Group Discussions
		iii)	Community members control scheme funds	Household interviews & Focus Group Discussions

Core dimension 2: Inclusiveness-how institutions ensure all groups and interests in the community can participate and the way in which Inequality is addressed.

	Benchmark	Indicator		Data collection method(s)
1	The diversity of local communities and interests are reflected at all levels of the WUA structure	i)	An increasing range of people from within all communities feel involved and that their needs are being met	Household interviews
		ii)	Scheme funds are directed at the needs of the most marginalized communities	Focus Group Discussions
2	Equal opportunity policies are in place and implemented	i)	An equal opportunities policy is developed, acted upon and monitored at scheme level	Focus Group Discussions
		ii)	Training and support around equal opportunities and anti-discriminatory practices and the development of appropriate policies is provided.	Key informant interviews & Focus Group Discussions

Core dimension 3:Communication -how institutions develop effective ways of sharing information with communities and clear procedures that maximize community participation				
	Benchmark	Indicator		Data Collection Method(s)
1	A two-way information strategy is developed and implemented	i)	Information is provided in plain and relevant languages and in a variety of forms	Household interviews & Focus Group Discussions
		ii)	Information is circulated from, to and within the community	Focus Group Discussions
		iii)	Communities are informed in advance of WUA planning processes and activities to enable participation	Household Interviews

2	Scheme/WUA procedures are clear and accessible	i)	Bureaucracy is kept to minimum	Focus Group Discussions
		ii)	The terms of reference of WUA structures is known by the communities	Household interviews & Focus Group Discussions
		iii)	Briefing sessions are provided for community members new to the scheme/WUA	Focus Group Discussions

Core dimension 4: Capacity- this is about developing the understanding, skills, knowledge and the organizational capacity of communities.

	Benchmark	Indicator	Data collection method(s)
1	Communities are well resourced to participate	i) Support and training are provided to enable communities to take control over assets and decision making	Household interviews & Focus Group Discussions
		ii) Secretariat services are provided for community representatives	Key Informant Interviews
		iii) A pool of resources including technical advice and support is provided for use by WUAs	Focus Group Discussions

Adapted from: Yorkshire forward, 2000

3.2 Study area

The Study was conducted in Zomba District, one of the 13 administrative districts in the Southern Region of Malawi. The district share boundaries with the districts of Chiladzulu, Phalombe and Machinga. The district covers about 2,580km² equivalent to 3% of the total land area of Malawi. The National Physical Development Plan of 1998, classifies Zomba as a sub-regional centre in terms of its proximity to the other surrounding districts (Zomba District Council-DSIP, 2012)

The district has a total population of 583,167 resulting in a population density of 230 persons per km², more than half (52.6%) of whom are 18 years or younger. The annual population growth rate over the last decade was 2% .The main ethnic groups are Mang'anja, Yao and Lomwe.Chichewa is the native language spoken by most of the inhabitants, although other languages like Manga'anja, Chiyao and Chilomwe are also spoken. The two dominant religions are Christianity (78%) and Islam (20%) (Zomba District Council, 2012).

3.2.1 Rationale for choosing the area

Zomba was chosen as a study area unlike other districts in the country for two reasons. Firstly, it is well endowed with surface water resources some of which have been developed into at least five (5) rural piped water schemes. Secondly, the District Council devolved the management of all five (5) schemes to communities and is being operated by registered Water Users Associations.

Makwawa North and Makwawa South gravity fed piped water supply schemes (GFS) were purposively selected for a number of reasons. Firstly, they have Water Users Associations that are operational therefore, provided an opportunity to the researcher to evaluate how the institutions are promoting active community participation as per mandate. Secondly, the pre-evaluation visit to the WUAs showed that the management has up-dated information of population and scheme functionality that could be used during the study. Thirdly, the schemes are located in the same Traditional Authority (Traditional Authority Malemia), therefore could save research costs in terms of travelling.

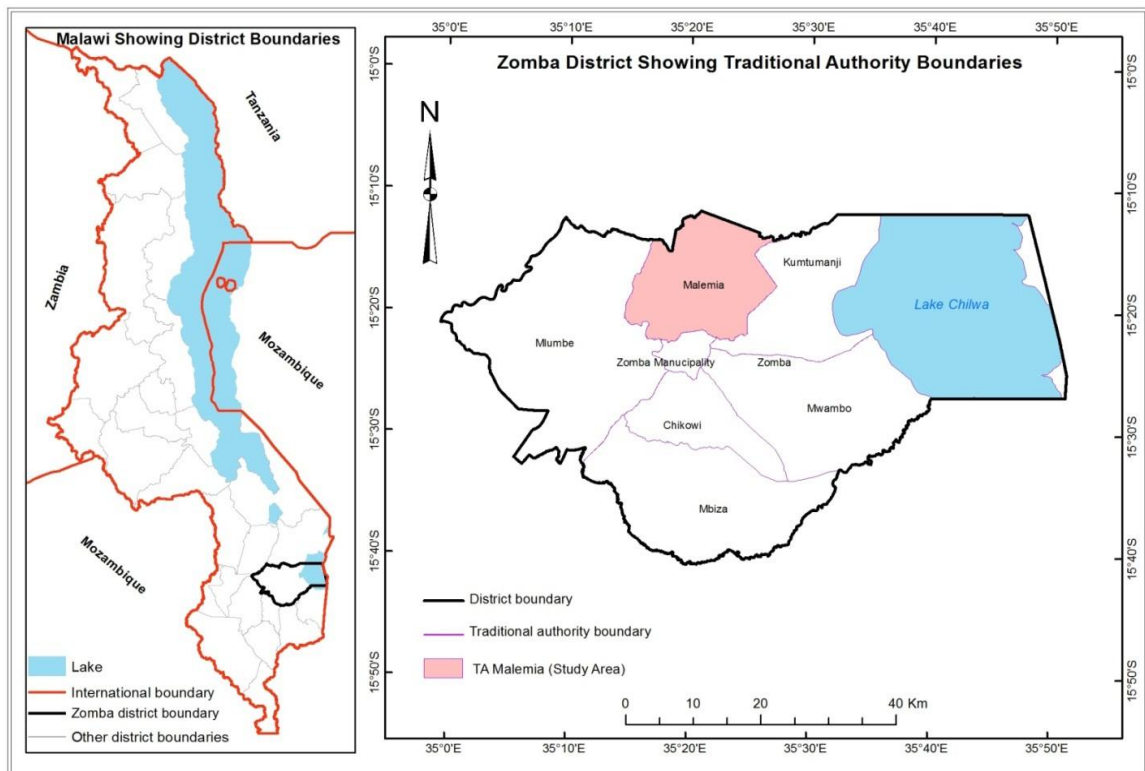


Figure 3: Map of Zomba District showing the study area

(Source: Map library, Chancellor College, Zomba)

The Makwawa North GFS was constructed in the 1980s and has a current user population of 5,563 and Makwawa South GFS also constructed in the same period with current user population of 6,345 (DWDO, 2010). The two water supply schemes underwent rehabilitation between 2010 and 2013 where major works were done by an external service provider (contractor) under the National Water Development Programme with financing from African Development Bank. The works involved rehabilitation of intakes, replacing and upgrading of pipe networks, construction of treatment works, rehabilitation of existing tanks, construction of new tanks and construction of Water Users Association offices (MoIWD, 2012).

3.3 Data collection methods

Secondary data for this research was obtained through desk reviews. Primary data was obtained through administration of a structured household questionnaire, interviews with key informants (at national, district levels); and focus group discussions with selected groups such as tap committees, WUA board and General Assembly members. Physical observation on condition of water infrastructure in the two schemes was conducted by the researcher using a checklist to aid in ascertaining user satisfaction with service level.

3.4 Sample size and sampling procedure

The district has five (5) rural gravity-fed schemes with registered WUAs which constitute the sampling frame from which two (2) have been purposively selected. The two schemes constitute a combined population of 11,908 consumers or approximately 2,381 households (assuming 5 people per household: W. Chirwa, 2015, personal communication). In the two (2) selected schemes, 60 villages in close proximity with a water supply system were identified and ten (10) villages were purposively selected per water supply system. In each village, five (5) household respondents who reside in the village were purposively selected from the village register for the survey (household interviews).

Purposive sampling was also used in identifying focus groups and key informants that provided insightful information and documents regarding this study. Case study evaluations almost always use purposive sampling. Purposive samples are used when the evaluator is studying a particular phenomenon and wants to ensure examples of it show up in the study (Yin, 1994). The concept of theoretical saturation (Bryman, 2008) informed the sample size for Focus Group Discussions at community level, which states that the number of groups to be interviewed is not specified at the beginning of the research but the interviewer continues to collect data until a point is reached that no new information is emerging. A total of 7 key informants and 12 focus groups were interviewed.

Household questionnaire generation involved asking people at village level a series of structured questions, writing down their responses and subsequently analyzing them. The questionnaire was pre-tested on 10 households (5 from each scheme under study) to remove all sources of error. The questionnaire was designed to get information concerning social economic background of respondents, accessibility of water supply services, involvement and influence on decisions, inclusiveness, communication and capacity of the community. According to the purpose of the study, population size and resources available, the sample size of 100 households was adopted for household interviews. Merriam (1988), states that the selection of a purposive sample is not based on the number of respondents but rather on the potential for each person to contribute to the development of insights and understanding of the phenomenon. The researcher chose households that have been living in their village from 1990 to 2013 because it was considered that the period was long enough to gain an understanding of water users' attitudes and practices regarding participation in the operation and maintenance of water supply services. In addition it was felt that people would remember

the role that they played before WUAs were established and their current roles after the new interventions were introduced.

3.5 Data analysis and presentation

Data collected was both qualitative and quantitative. Analysis of qualitative data from key informants and Focus Group Discussions (FGDs) was analyzed manually under specific themes. Quantitative data was analyzed using the IBM Statistical Package for Social Scientists (SPSS) software programme, to come up with descriptive statistics. The study used these statistics to describe the characteristics of the sample population and peoples' participation in the scheme supply areas.

3.6 Ethical considerations

Ethical issues in research are concerned mainly with balancing the right of people for privacy, safety, confidentiality and protection from deceit with the pursuit of scientific endeavor (Pilot and Hungler, 1998 as cited in Ncube, 2011). Consent to carry out this study was obtained from the District Commissioner for Zomba. In addition, a letter introducing the researcher and the research was obtained from the University of Malawi, the Polytechnic. Consent was also sought from each household before interview and rewards were not used to entice people in the research process.

CHAPTER 4

RESULTS

4.1 Introduction

This chapter presents the results of the study that intended to answer the following research question: Do Water Users Associations in Zomba District promote active community participation in operation and maintenance of rural gravity piped water supply schemes?

The chapter is basically providing the records of dialogue that the research opened with water users in the two schemes and gives the level of detail that the evaluation framework offers which could be used or improved in future.

The chapter is divided into five sections. The first section presents the socio-economic characteristics of the study respondents. The other sections present the detailed research findings based on the four core dimensions of community participation proposed by the Yorkshire forward framework (2000).

4.2 Socio-economic characteristics of respondents

The data presented in Table 3 below shows high frequencies of social economic variables that were assessed by the study.

Table 3: Socio-Economic characteristics of respondents

Variable	Makwawa North (N=38)	Makwawa South (N=44)
Gender	84% Female	84% Female
Marital Status	74% Married	70% Married
Age of respondents	45% 24-34 years	48 % 35-45years
Literacy (Highest Qualification)	66% Primary School level	57% Primary School level
Occupation	63% Farming	68% Farming

4.3 Dimension of influence

This is one of the core dimensions of community participation proposed by Yorkshire Forward (2000) and adapted by the study in order to assess the involvement of communities in shaping plans or activities and all decision making in Water Users Associations.

4.3.1 Benchmark 1: Recognition and valuing the community as equal partners in all scheme activities

For the purposes of this study three indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) Involvement of communities in the identification, evidencing and interpretation of community needs.
- (ii) Involvement and ideas of communities members forming an integral part of the WUA plans.
- (iii) The existing capacity within the communities to deliver projects is recognized.

Regarding *indicator (i), Involvement of communities in the identification, evidencing and interpretation of community needs*; the respondents in the household interviews were asked about who was responsible for planning water supply activities in their village before the WUA was established. The results in figure 4 show that Scheme Committee was responsible for water supply planning in Makwawa North gravity fed scheme before WUA was established.

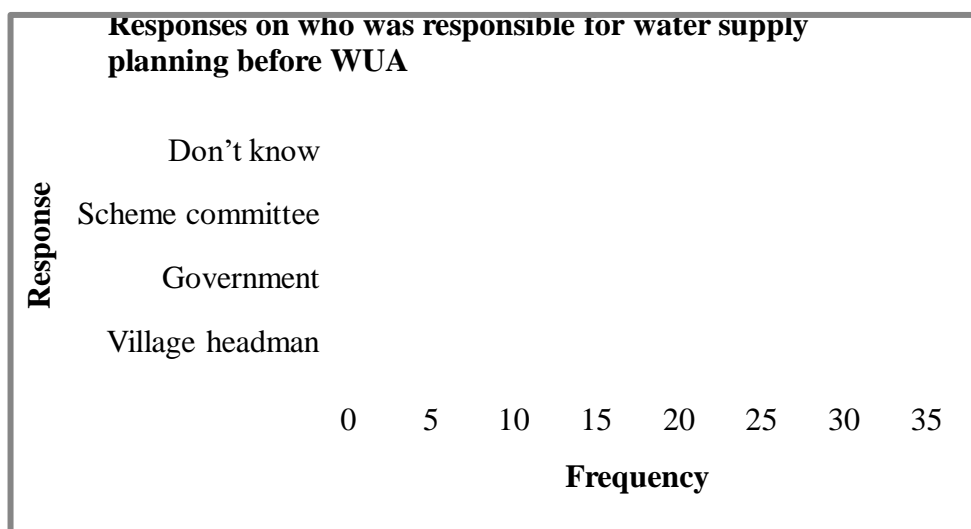


Figure 4: Water supply planning in Makwawa North before WUA

Similarly majority of respondents in Makwawa North gravity fed scheme responded that the Scheme committee was also responsible for water supply planning in the scheme.

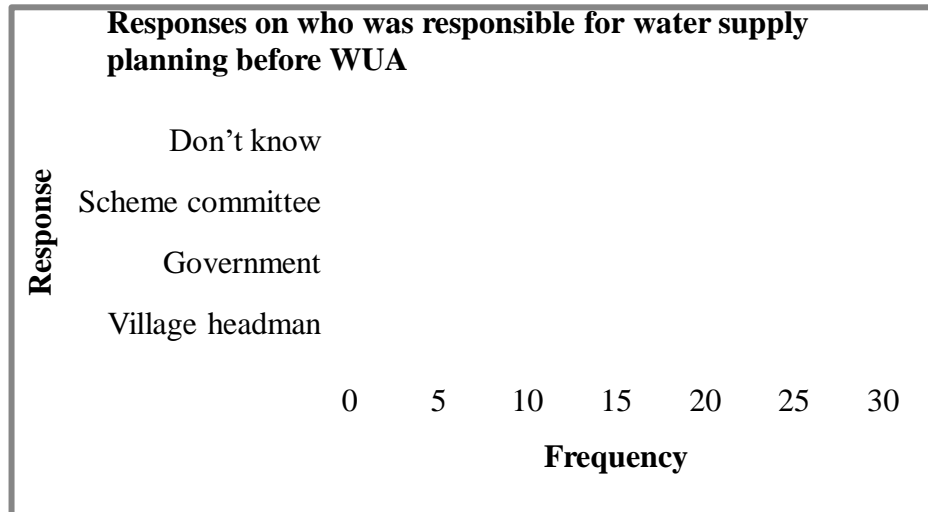


Figure 5: Water supply planning in Makwawa South before WUA

Further analysis of the results indicated that some of the respondents from Makwawa North and Makwawa South respectively responded that it was the Government and village heads that were responsible for planning water supply activities in their village.

The respondents were further asked if during this time whoever was responsible for planning water supply activities in the village consulted them when decisions were being made. The results in figure 6, indicates that 63% of the respondents in Makwawa North were not being consulted by the people responsible at the time.

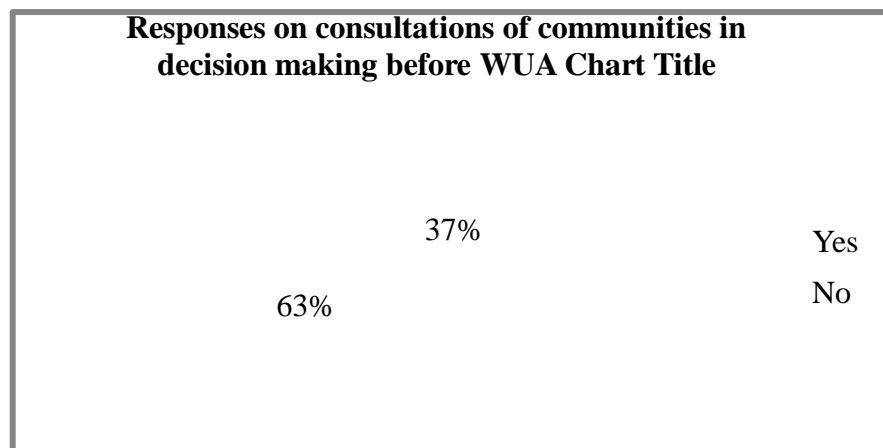


Figure 6: Decision making consultations in Makwawa North before WUA

The results in figure 7 indicate that 70% of respondents in Makwawa South were also not being consulted by the scheme committee members when making decisions.

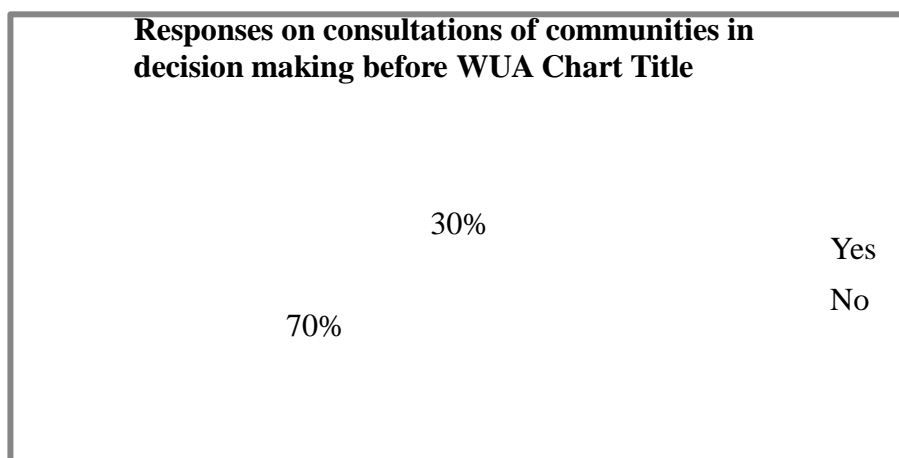


Figure 7: Decision making consultations in Makwawa South before WUA

The respondents were further asked if they are now involved in developing plans on how water resources will be managed and operated at the village level. The results in Table 4, indicates that 100% and 77% of the respondents from Makwawa North and Makwawa South respectively responded that they are currently not involved in developing plans of how water resources will be managed at the village level.

Table 4: Current involvement of communities in water resources planning

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	0	0%	10	23%	10
No	38	100%	34	77%	72
Total	38	100%	44	100%	82

Regarding involvement of communities in developing plans for the Water Users Associations, the findings in figure 8 shows that 97% of respondents in Makwawa North indicated that they are not involved in development of WUA plans at the moment.

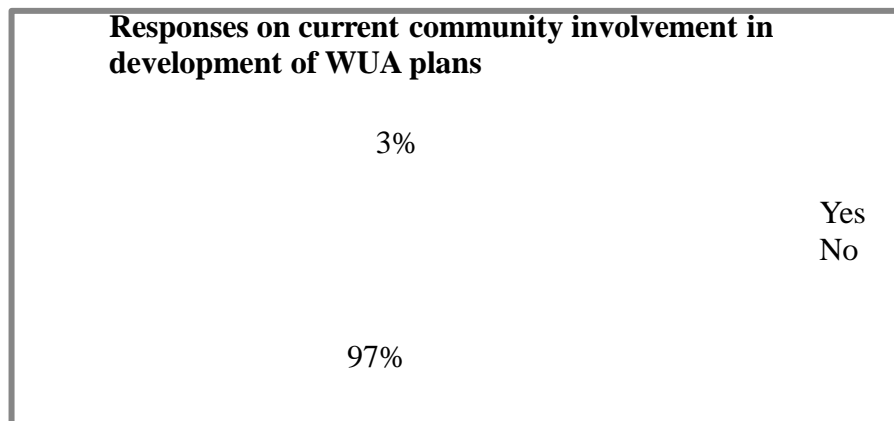


Figure 8: Current community involvement in WUA planning in Makwawa North

The findings in figure 9 indicate that 77% of respondents in Makwawa South are also not involved in the development of WUA plans at the moment.

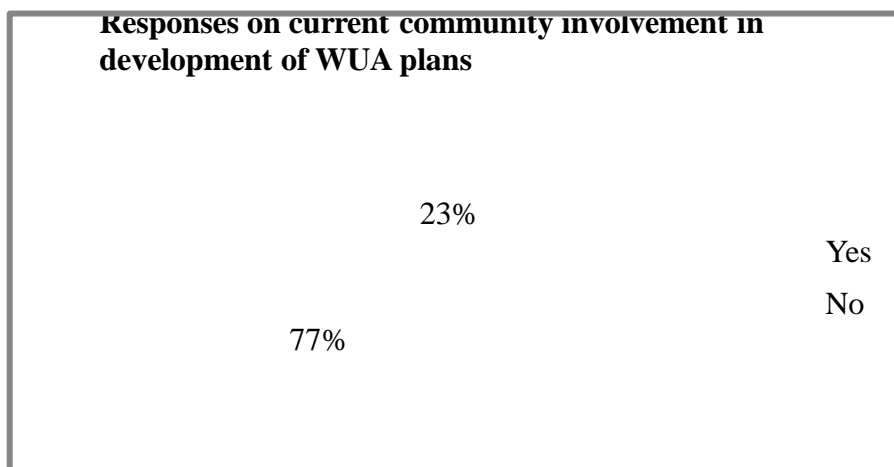


Figure 9: Current community involvement in WUA planning in Makwawa South

Regarding indicator (ii), *the involvement of community members as an integral part of WUA plans*; respondents were asked whether during the initial stages of WUA formulation anyone consulted them. The results are presented in figure 10 show that 79% of respondents in Makwawa North indicated that they were consulted during the initial stages of WUA establishment.

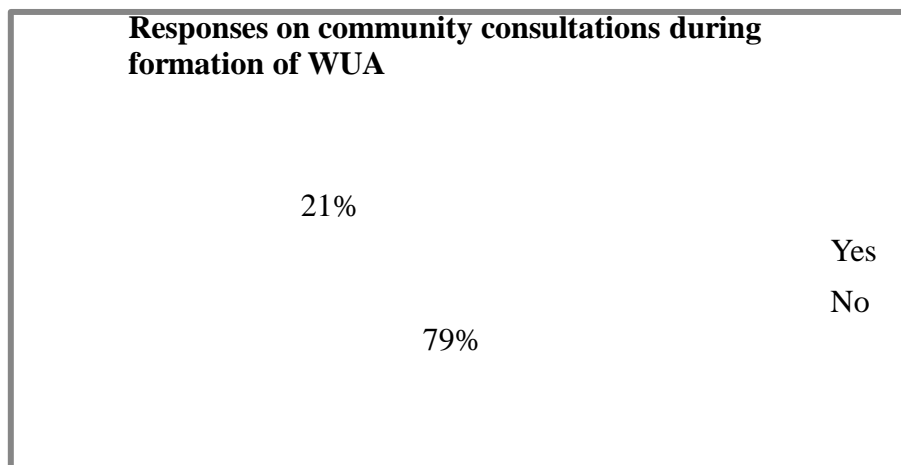


Figure 10: Community consultations during WUA formation in Makwawa North

The results in Figure 11 show that 59% of respondents in Makwawa South indicated that they were not consulted during the initial stages of WUA establishment.

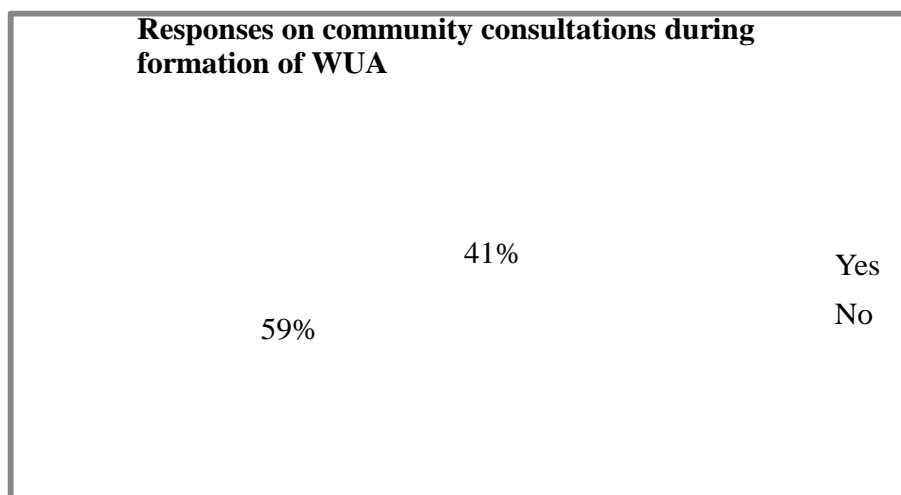


Figure 11: Community consultations during WUA formation in Makwawa South

Initial interviews with officials at the District Water Development Office on the background of the Makwawa South WUA indicated that it comprises two schemes. The other scheme formerly called Zomba South was amalgamated to the Makwawa South scheme after formation of the WUA in Makwawa South which at the time was undergoing rehabilitation under NWDP II (H. Ngaiyaye, personal communication, 2015). This implies that a certain section of water users in the Makwawa South WUA was not consulted because were not part of the scheme at the time of WUA formation.

The respondents, who indicated that consultations occurred, were further asked to mention the people who came for consultations. The results are presented in figures 12 and 13 shows that Government officials from the local Council conducted the community consultations.

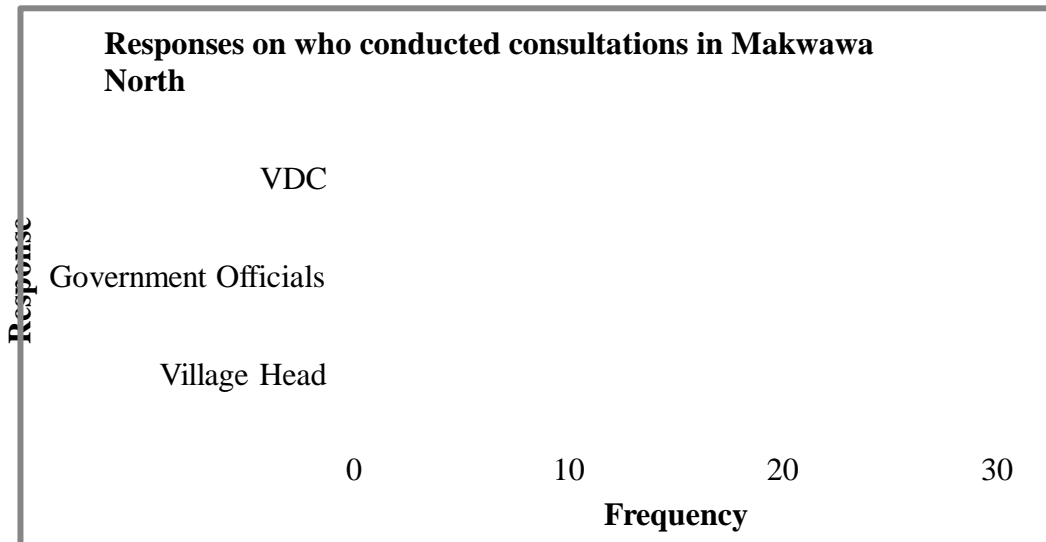


Figure 12: Community consultations in Makwawa North

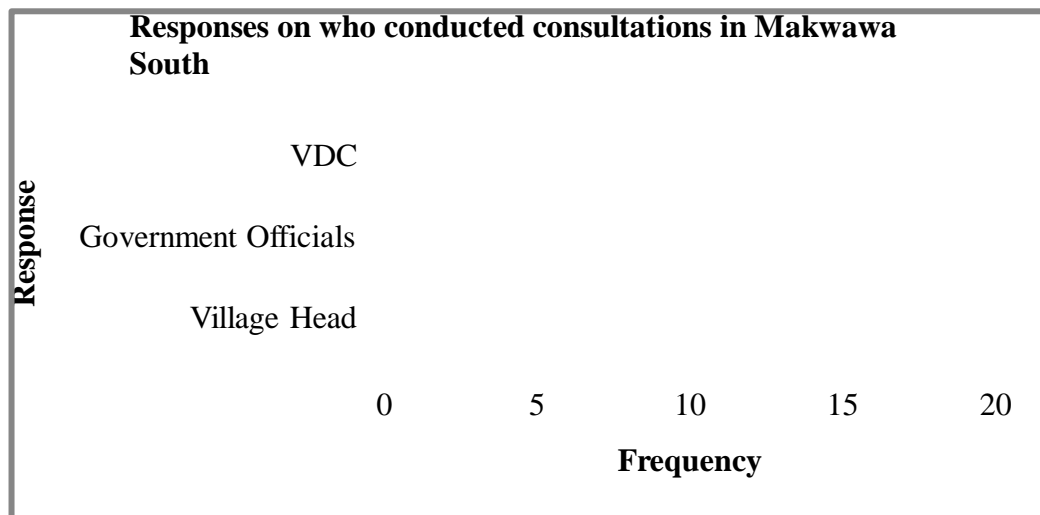


Figure 13: Community consultations in Makwawa South

The respondents were further asked whether an opportunity was provided to give their inputs /ideas as part of this consultation process. The results presented in figure 14 show that 58% of respondents in Makwawa North indicated that during the consultations community members were not given an opportunity to give their inputs or ideas.

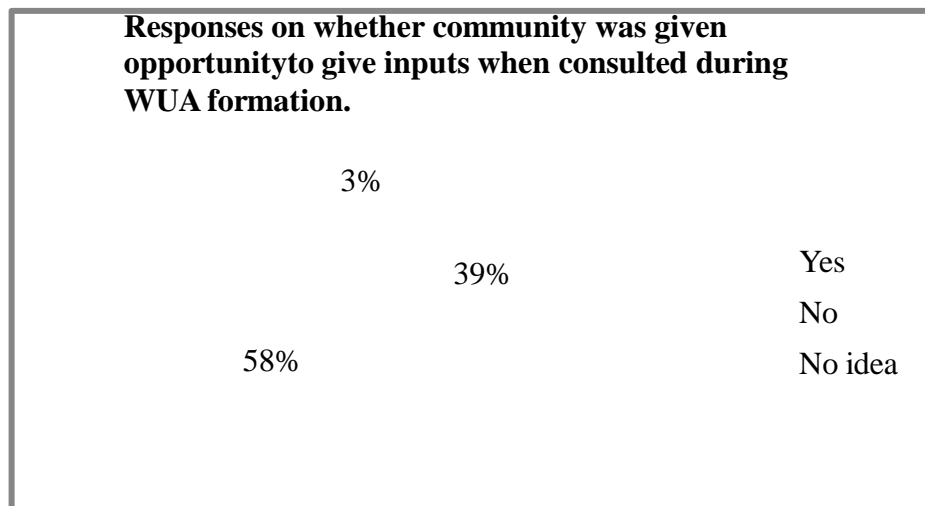


Figure 14: Opportunity to give ideas/inputs during WUA consultation process in Makwawa North

In Makwawa South the results in figure 15 show that 56% of respondents indicated that they were not given an opportunity to give inputs or ideas during the consultation process.

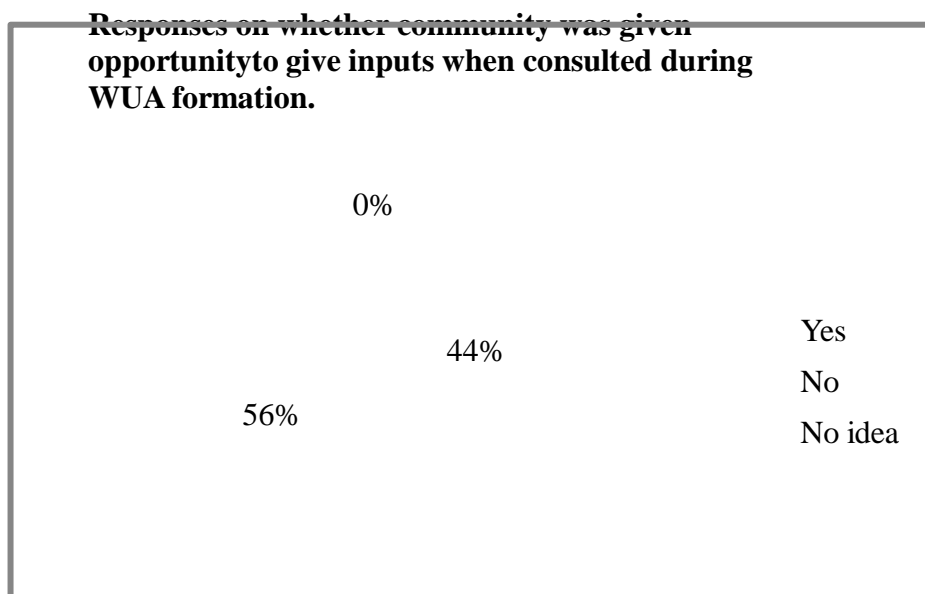


Figure 15: Opportunity to give ideas/inputs during WUA consultation process in Makwawa South

The study further enquired from the respondents as to whether community members are informed about decisions that have been made by the tap committee or WUA Board? The results presented in figure 16 shows that 92% of respondents from Makwawa North indicated that communities are informed about decisions made by elected community representatives in the WUA.

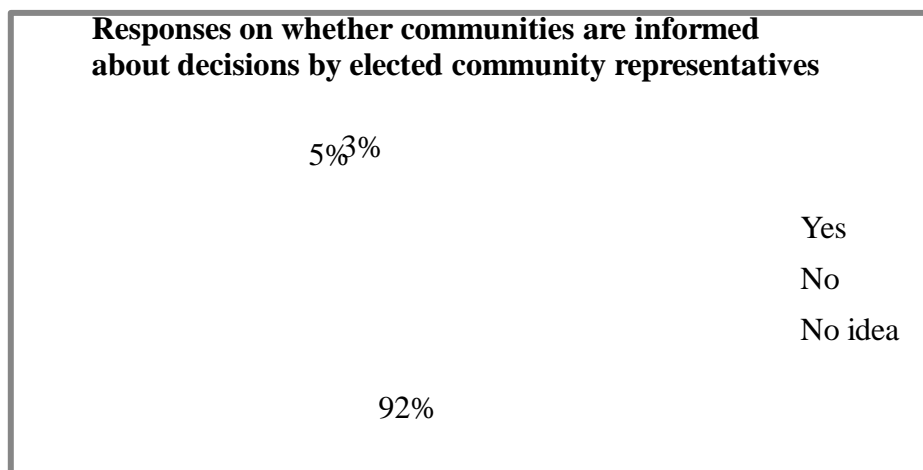


Figure 16: Proportion of community members informed about decisions by elected community representatives in Makwawa North

The result in figure 17 shows that community members in Makwawa South are also informed about decisions by elected community representatives.

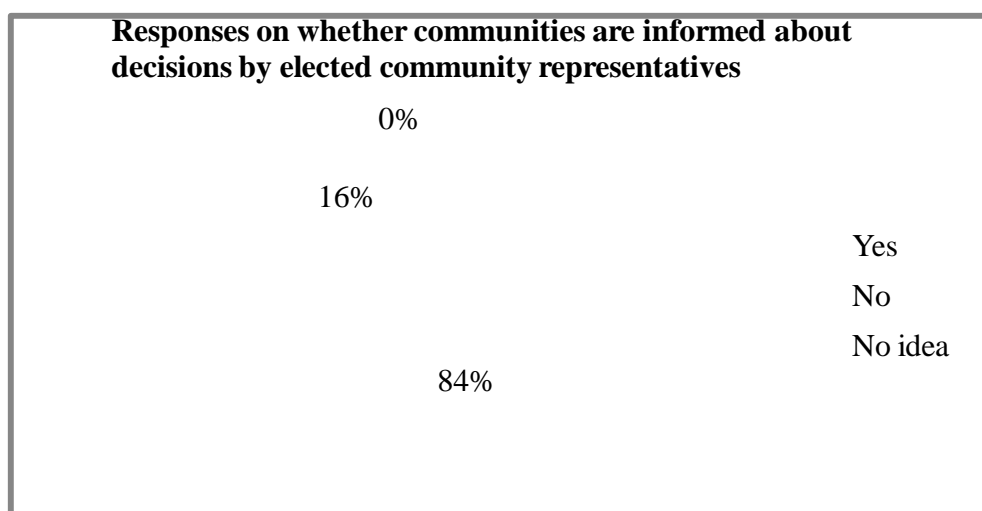


Figure 17: Proportion of community members informed about decisions by elected community representatives in Makwawa South

The respondents at household level were then asked whether people can suggest alternatives to their community representatives if they notice or face challenges with what is being proposed or done. The results are presented in figure 18 shows that 53% of respondents in Makwawa North indicated that community members cannot offer alternative ideas on decisions made by the community representatives.

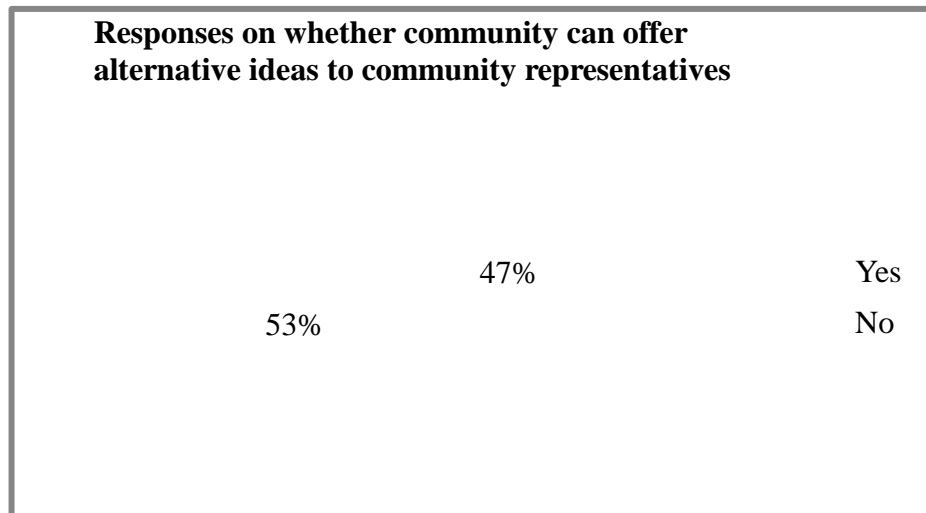


Figure 18: Whether community members in Makwawa North can offer alternative ideas to community representatives

The results in figure 19 shows that community members in Makwawa South also do not offer alternative ideas on decisions by the community representatives.

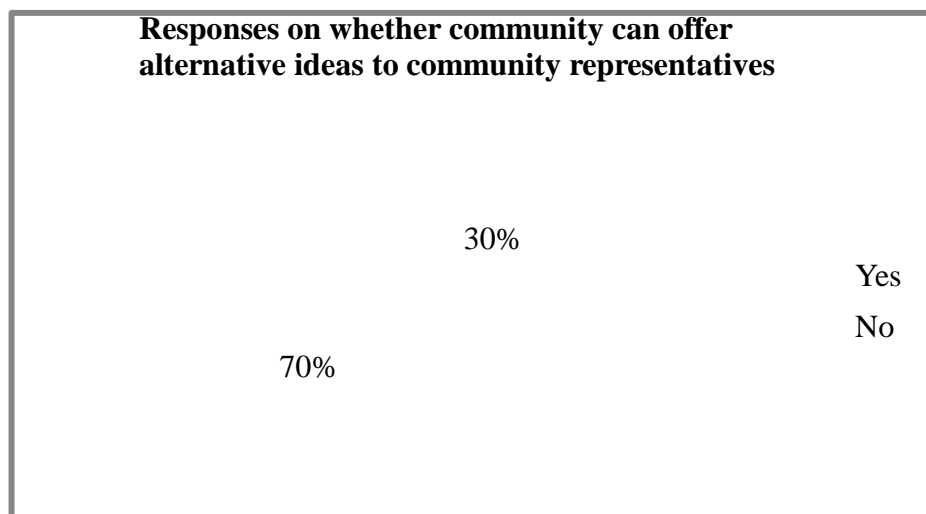


Figure 19: Whether community members in Makwawa North can offer alternative ideas to community representatives

Regarding *indicator (iii), recognition of existing capacity within the communities to deliver projects*; the respondents at household level were asked about the role played by them or other members of the village for water supply to reach their village. The results are presented in figure 20 shows that most people in Makwawa North participate in scheme projects through trench excavation and pipe laying as part of community contribution.

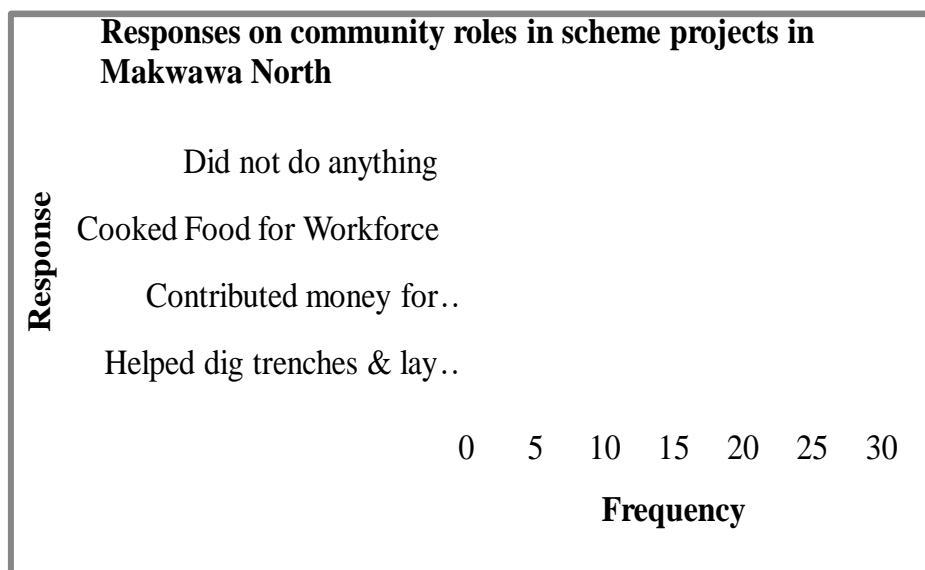


Figure 20: Community contributions for water supply to reach villages in Makwawa North

Similarly, figure 21 indicate that community members contribute labour in scheme projects in Makwawa South gravity fed scheme.

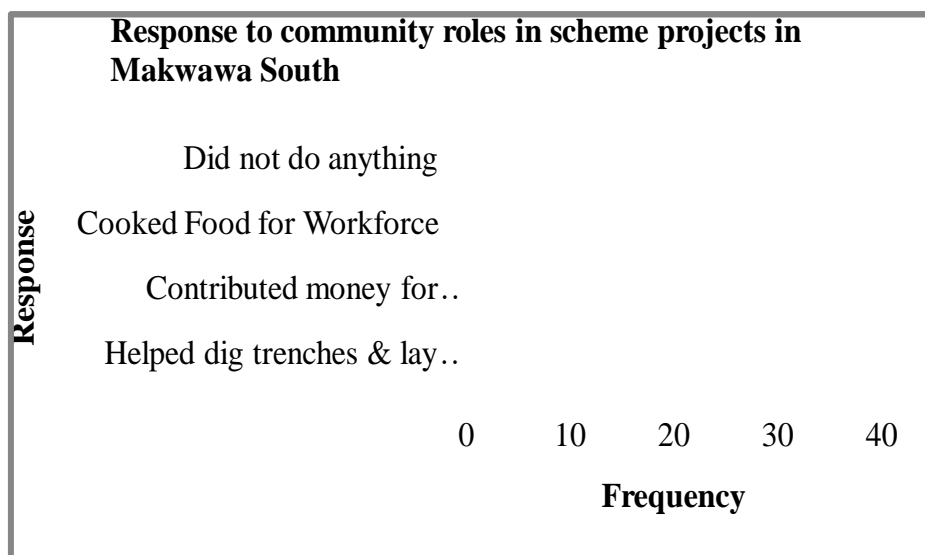


Figure 21: Community contributions for water supply to reach villages in Makwawa South

Plate 1 confirms these findings where it shows women digging pipe trenches in Makwawa North gravity fed scheme as part of community contribution to a scheme project.

Plate 1: Community members contributing labour during construction of pipe lines in Kili Village, Makwawa North



Source: Field survey (2013)

4.3.2 Benchmark 2: Meaningful community representation on all decision making bodies

For purposes of this study three indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) Community representatives are elected by, and accountable to wider community.
- (ii) Community representatives reflect the diversity of local community.
- (iii) Decision making is open and participative.

Regarding *indicator (i), Community representatives are elected by, and accountable to wider community*; Results in Table 5 show that 100% of respondents in both schemes indicated that community representatives in the WUA are elected by the community.

Table 5: Responses on who elects community representatives

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	38	100%	44	100%	82
No	0	0%	0	0%	0
Total	38	100%	44	100%	82

With respect to accountability, the result in figure 22 shows that tap committees in Makwawa North are accountable to WUA Board chairman.

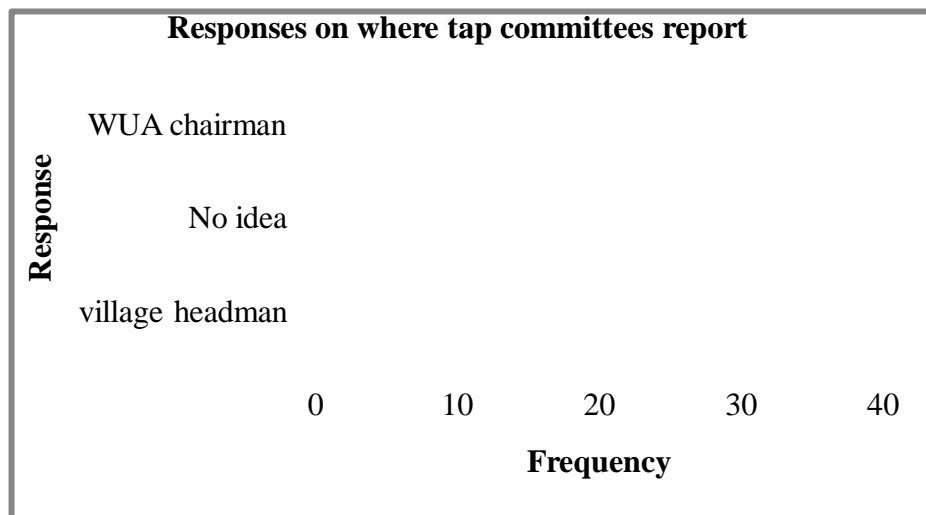


Figure 22: Accountability of tap committees in Makwawa North

Similarly, the result in figure 23 indicates that tap committees in Makwawa South are also accountable to the WUA Board Chairman.

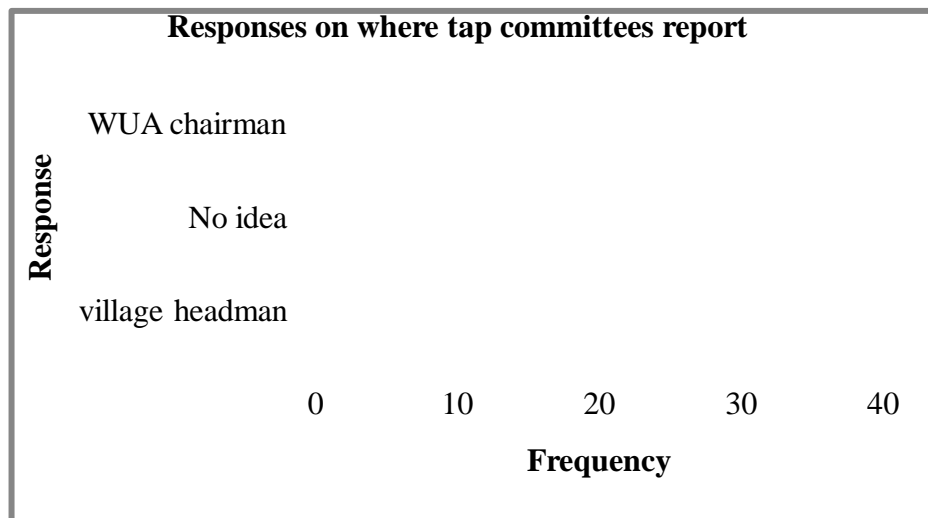


Figure 23: Accountability of Tap committees in Makwawa South

The results in figures 23 and 24 further indicate that some committees report to village headman. This finding is confirmed by the following quote:

'komiti yathu ya pampope imapereka report kwa mfumu a m'mudzi mwathu osati ku WUA' meaning *'our tap committee reports to the village headman not WUA.'*

On communication of information other than decisions from the top (WUA) to the bottom (Water User), the results in figure 24 shows that 84% of respondents from both schemes reported that WUA representatives do not communicate information from the top to other users in the community.

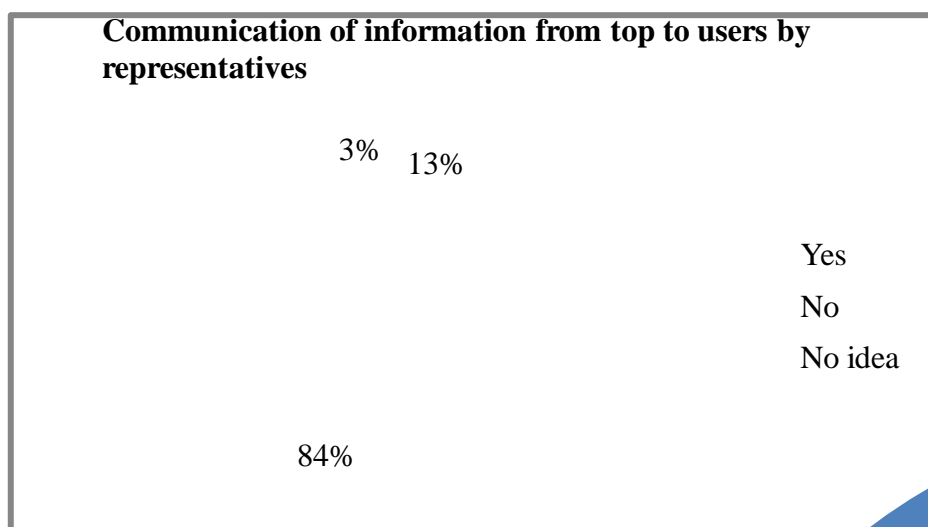


Figure 24: Responses on communication of information from top to users by representatives in Makwawa North

Similarly, results on figure 25 also confirms that community representatives in Makwawa South do not communicate information from top to water users in the community/scheme.

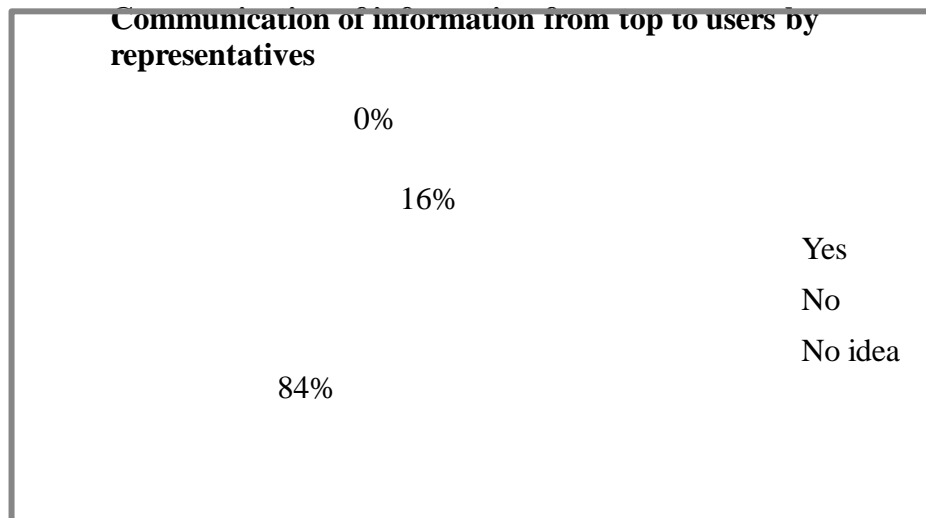


Figure 25: Responses on communication of information from top to users by representatives in Makwawa South

With respect to who assesses or appraises the performance of community representatives in the WUA, findings in Figure 26 shows that in Makwawa North respondents reported that the District Council is responsible for performance appraisals.

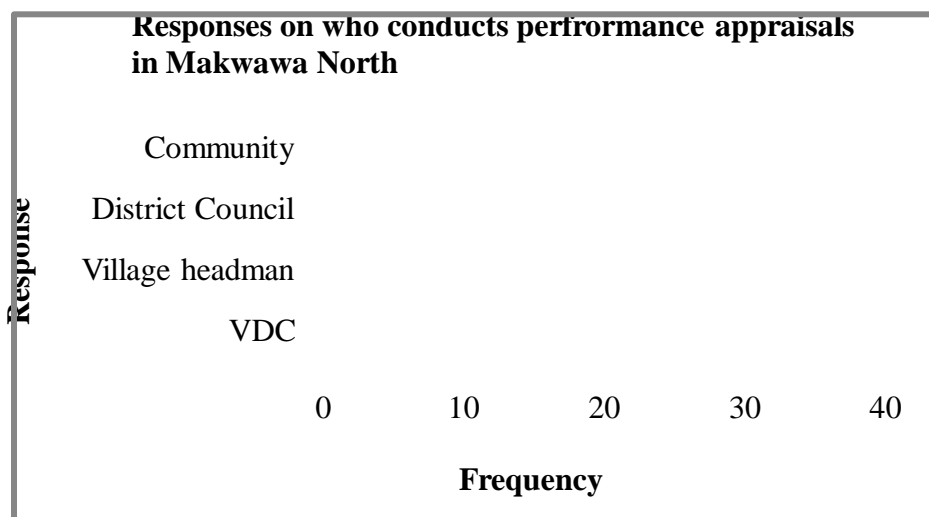


Figure 26: Performance appraisals for community representatives in Makwawa North

Similarly, results in figure 27 shows that in Makwawa South community members are not responsible for appraising performance of elected community representatives in the WUA.

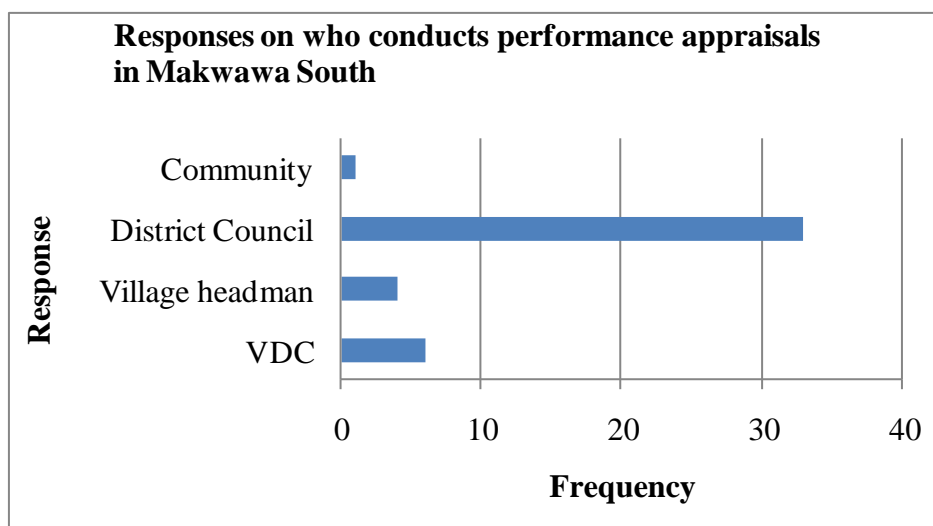


Figure 27: Performance appraisals for community representatives in Makwawa South

The respondents were further asked if the Government officials from the district council involve them when conducting performance appraisals of Water Users Association structures. The results are in Table 6.

Table 6: Involvement of community members during the performance appraisals

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	0	0%	0	0%	0
No	38	100%	44	100%	82
No idea	0	0%	0	0%	0
Total	38	100%	44	100%	82

Regarding indicator (ii), Community representatives reflect the diversity of local community; Results in Table 7 indicate Gender distribution in six randomly selected villages in the two schemes.

Table 7: Gender distribution in selected water point committees

Traditional Authority	GVH	Village	Scheme	Gender		Total
				Male	Female	
Malemia	Mtogolo	Chisumu	Makwawa South	0	6	6
		Kaphinda	Makwawa South	3	3	6
		Binali	Makwawa South	0	6	6
		Kamwaza	Makwawa South	1	5	6
		Ngalango	Makwawa South	0	6	6
	Mtwiche	Kili	Makwawa North	0	6	6
		Sani	Makwawa North	2	4	6
		Liwasa	Makwawa North	2	4	6
		Magomero	Makwawa North	1	5	6
		Taulo	Makwawa North	0	6	6
Total				9	51	60

With respect to tap committee membership in the schemes, the results in Table 7 indicate that tap committees are dominated by women.

With respect to positions of influence at WUA board level, results presented in Table 8 indicate that female membership in both WUA Boards is 43%.

Table 8: Gender composition of Makwawa North and Makwawa South WUA Boards

	WUA	
	Makwawa North	Makwawa South
Position	Gender	Gender
Chairperson	Male	Male
Vice-Chair person	Male	Male
Secretary	Female	Female
Vice-Secretary	Male	Male
Treasurer	Male	Male
Members	Male	Male
	Female	Female

The study also collected information on age and gender of community representatives elected into the WUA Boards at Makwawa North and Makwawa South schemes.

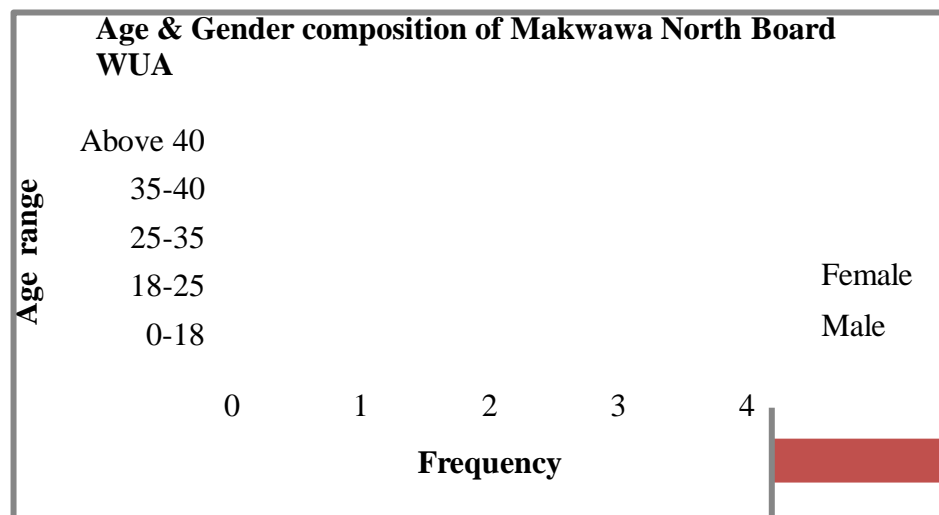


Figure 28: Age and gender composition of Makwawa North WUA Board

With respect to age distribution, results in Figures 28 and 29 shows that majority of Board members in the two WUAs fall within the age bracket of 25-40 years and there are no members within the age bracket of 18 and below as at June, 2015. In addition to this the WUA registers did not indicate representation from the physically disadvantaged groups in neither the Boards nor General Assemblies.

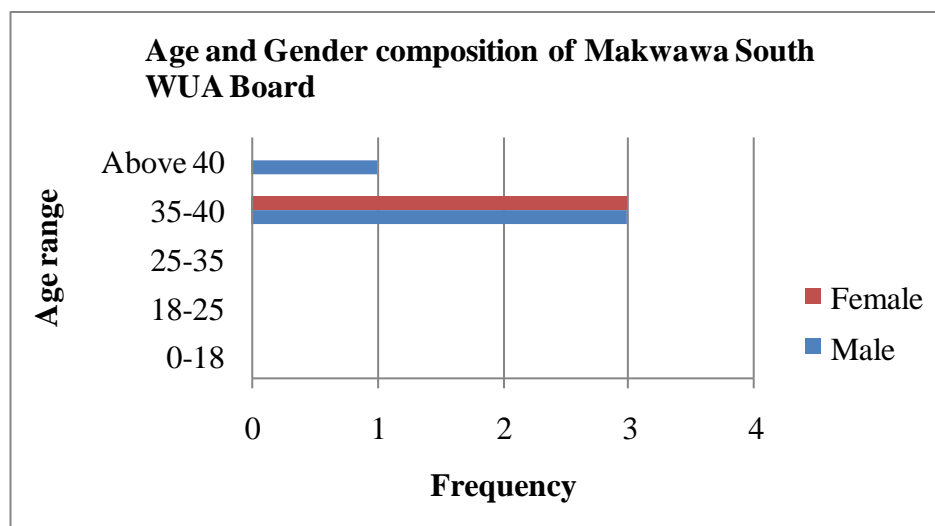


Figure 29: Age and gender composition of Makwawa North WUA Board

Regarding *indicator (iii), decision making is open and participative*; results in figure 30 shows that majority of respondents in Makwawa North indicated that only community representatives in the WUA are involved in decision making.

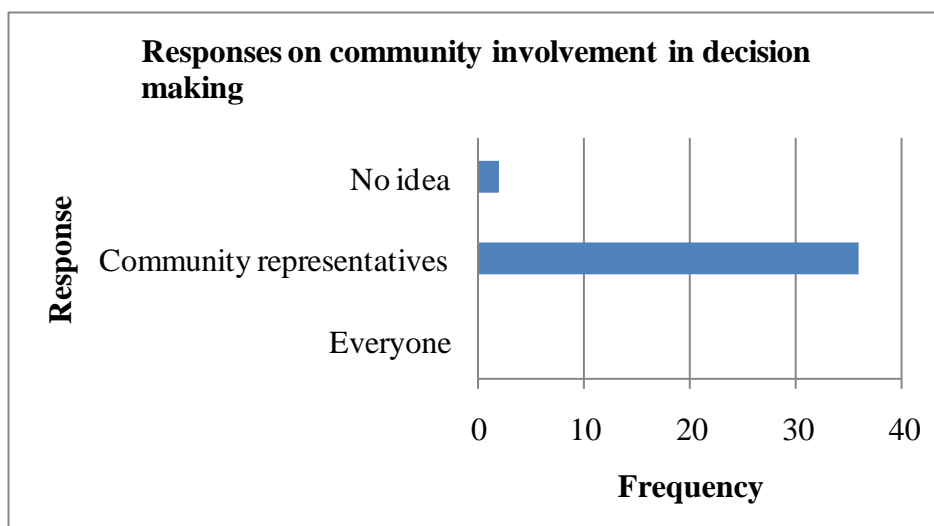


Figure 30: Decision making in Makwawa North

Similarly, the results in figure 31 indicate that only community representatives in Makwawa South are involved in decision making.

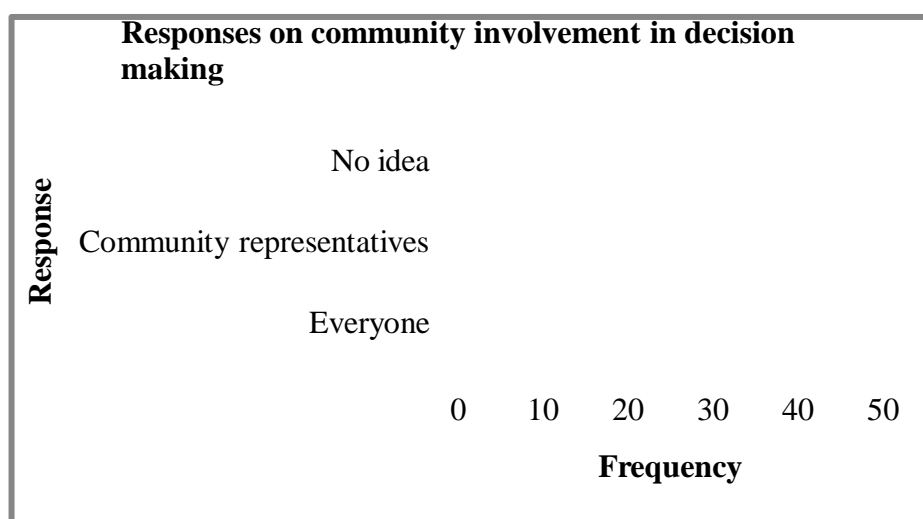


Figure 31: Decision making in Makwawa South

Regarding issues of scheme revenue utilization, the respondents were asked about who makes the decision on how collected revenue from water tariffs should be used. Results presented in figure 32 shows that respondents from Makwawa North indicated that WUA Boards make decisions on how scheme revenue should be used.

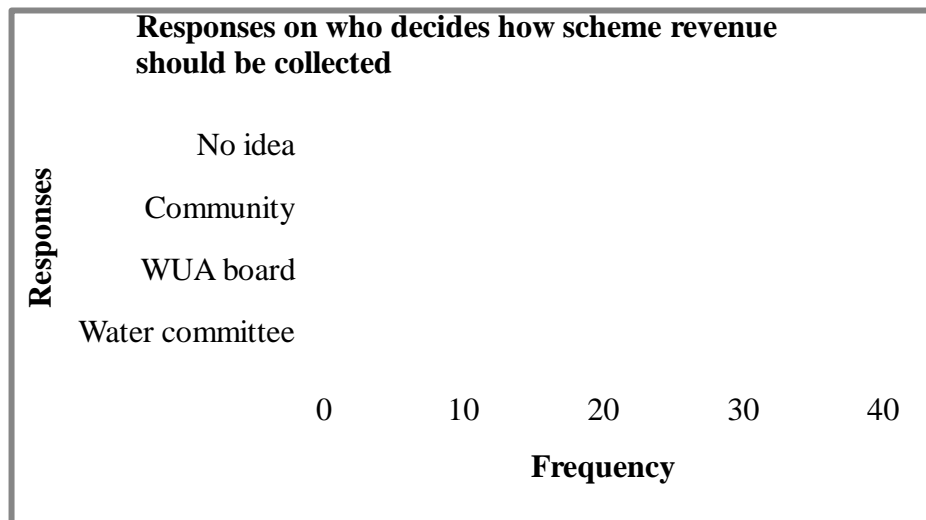


Figure 32: Decision making on utilization of scheme revenue in Makwawa North

Similarly, results in figure 33 shows that the WUA Board for Makwawa South is responsible for deciding on how scheme revenue is utilized.

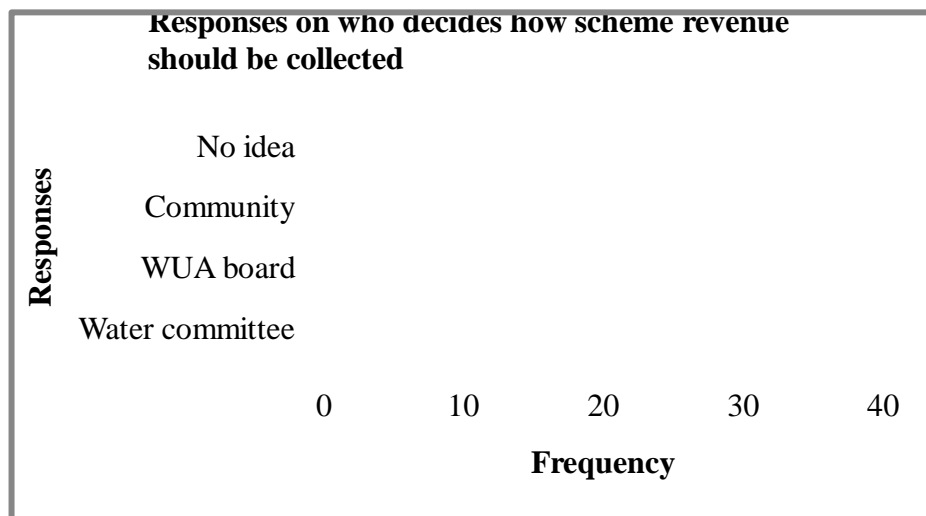


Figure 33: Decision making on utilization of scheme revenue in Makwawa South

The respondents were further asked reasons they do not participate in making decisions on how scheme revenue should be used (see results in Table 9).

Table 9: Reason given by respondents for not participating in decision making on use of revenue

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
WUA Board only interacts with chiefs only	4	11%	6	14%	10
No community meetings	34	89%	37	84%	71
Don't know	0	0%	1	2%	1
Total	38	100%	44	100%	82

The results in table 9 shows that 89% and 84% of respondents from Makwawa North and Makwawa South respectively indicated that lack of community meetings are the main reason they do not participate in making of decisions on how scheme revenue should be used.

4.3.3 Benchmark 3: All community members have opportunity to participate.

For purposes of this study four indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) A range of creative approaches are taken to engage community members and include those who are more isolated and/or active in groups or networks.
- (ii) Community members understand the scope of their influence and are informed of their outcomes.
- (iii) Barriers to participation are recognized and addressed.
- (iv) An increasing number of community members participate in a meaningful way.

Regarding *indicator (i)*, a range of creative approaches are taken to engage community members and include those who are more isolated and/or active in groups or networks; community representatives in the WUAs were asked to mention approaches that they can use to engage community members including those that are more isolated. Results in table 10 show responses made by some key informants during FGDs.

Table 10: Responses on creative approaches that are taken to engage community including those who are isolated/ inactive

Respondent	Creative approach
General Assembly members	-Engaging Water Users at funeral services -Engaging communities in open forum
Water point committee members	-Introducing water supply issues at Church gatherings in the village
WUA board members	-Introducing community radio listening Clubs in order to initiate dialog on issues affecting every day access to water supply. -Engaging parents at Parent Teacher Association forum

Further inquiries on whether these creative approaches of engaging water users are put into practice revealed that none of these ideas are either experimented or fully implemented. To put this into perspective, some community representatives commented that;

‘Kumakhala kovuta kuwafikira anthu osiyanasiyana musikimu yathu chifukwa cha nthawi poti ngati mavolontiya timakhala bize ndi zinthu zathu pathomo zomwe sitingazisiye ndikumakapanga za WUA pokha pokha patakhalala kangachepe.’

Meaning *‘it is difficult for us to commit ourselves to activities we have suggested because as volunteers we would rather focus on things that would uplift our families than voluntary WUA activities where we get nothing at the end of the day.’*

Regarding indicator (ii), *Community members understand the scope of their influence and are informed of their outcomes*; results in table 11 shows that 84% and 95% of respondents from Makwawa North and Makwawa South respectively know that they have a right to demand information from representatives in the committee or WUA board.

Table 11: Responses on communities' knowledge about their rights to demand information

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	32	84%	42	95%	74
No	5	13%	2	5%	7
No Idea	1	3%	0	0%	1
Total	38	100%	44	100%	82

Respondents were further asked if people have a chance to ask the committee or WUA Board to communicate information when they feel they need any information. Results presented in table 11 shows that 66% of respondents from Makwawa South indicated that they have a chance to access information from the top while 76% of respondents from Makwawa North do not have any chance.

Table 12: Responses on chance to access information from committees or WUA Board

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	9	24%	29	66%	38
No	29	76%	15	34%	44
Total	38	100%	44	100%	82

Respondents who replied that they have a chance to ask for any information from committees or WUA Board were the asked if indeed they request for such information in practice.

Results presented in table 13 shows that 78% and 66% of respondents from Makwawa North and Makwawa South respectively do not request for such information from the committee or WUA board in practice in spite having a chance to do so.

Table 13: Responses on whether communities in practice request for information

WUA					
	Makwawa North		Makwawa South		
Response	Number (N=9)	Percent (%)	Number (N=29)	Percent (%)	Total
Yes	2	22%	10	34%	12
No	7	78%	19	66%	26
Total	9	100%	29	100%	38

Regarding *indicator (iii)*, *barriers to participation are recognized and addressed*; representatives of communities in the WUA and other key informants were engaged in FGDs with an aim of identifying barriers to community participation in the schemes and ways of addressing them. Results in table 14 summarize the barriers that were recognized and ways of addressing them.

Table 14: Summary of barriers to community participation and how to address them

Respondents	Factor hindering community Participation	How to address
Community members,	-Poor community leadership in some villages	-Actively engage such leaders in order to induce interest and commitment
Government Staff	-Lack of transparency and accountability among community representatives in the WUA structures	-Promote and main stream Community Based Monitoring and (CBM&E) in order to encourage Social accountability and transparency among service providers
	-Lack of respect for community knowledge by employed scheme works	-Recognize community knowledge
	-Local Utility Operators tend to have a mind-set that local communities do not have the necessary know how on operation and management of GFS, this tend to isolate the WUA institution from the local community	-Recognize community partnership.
	-Limited understanding of the WUA concept and what it entails by Local communities including some representatives in the WUA structures.	-Sensitization of communities on their roles as well as responsibilities of the various organs of the WUA structure.

The interviewees were further asked if the measures to address these barriers are implemented in practice. The participants indicated that nothing suggested is put into practice because some of the challenges require financial investment in community awareness and currently there are no deliberate programmes at District Council for such activities.

Regarding *indicator (iv), an increasing number of community members participate in a meaningful way*; results presented in table 14 shows that 53% and 55% of respondents made contributions whether financial material or physical for the water supply to reach their village.

Table 15: Proportion of respondents who made various contributions for water to reach their village

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	20	53%	24	55%	40
No	18	47%	20	45%	42
Total	38	100%	44	100%	82

The respondents in the study area were further asked if they pay anything to access water from this source. Results presented in table 15 shows that 100% of respondents in both schemes pay monthly tariffs. Therefore the study has revealed that community members pay to access water services.

Table 16: Proportion of respondents paying for water supply services in the schemes

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	38	100%	44	100%	82
No	0	0%	0	0%	0
Total	38	100%	44	100%	82

In relation to deciding how the collected funds should be used, results in Table 17 indicate that 100% and 86% of respondents from Makwawa North and Makwawa South are not involved in the decision making process.

Table 17: Proportion of respondents involved in decisions about utilization of collected funds

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	0	0%	6	14%	6
No	38	100%	38	86%	76
Total	38	100%	44	100%	82

Plate 2: Functional tap in Chopi village



Source: Field Survey, 2013

4.3.4 Benchmark 4: Communities have access to and control over resources.

For purposes of this study three indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) Community members can easily access decision makers and scheme workers.
- (ii) Community members control scheme funds.
- (iii) An agreed percentage of scheme revenue is committed to community led projects.

Regarding indicator (i), community members can easily access decision makers and scheme workers; results presented in table 18 indicate frequency of meetings between communities and General Assembly representatives between months of June and August, 2015.

Table 18: Frequency of meetings between representatives and communities

WUA			
	Makwawa North	Makwawa South	
Month	Frequency	Frequency	Total
June	1	0	1
July	1	0	1
August	0	2	2
Total	2	2	4

Results in table 18, show that over a period of 90 days the two WUAs only conducted 2 meetings each with local community members.

The FGD participants were further asked about key issues discussed at these meetings. Results presented in table 19 shows that issue of scheme finances was not discussed at these meetings.

Table 19: Ranking of issues discussed in community meetings

Issue	Rank (1, 2, 3)	1=Dominated meeting 2=Was discussed in brief 3=Not discussed at all.
Vandalism of pipes	1	
Non-payment of water tariffs	1	
General scheme maintenance	2	
Report on Scheme finances and future plans	3	

The participants were further asked to give reasons for not discussing issues of scheme finances at these meetings. Results in figure 34, shows that most the of community representatives in Makwawa North gave reason that the communities did not demand financial information while others gave reason that such information is not available for public consumption.

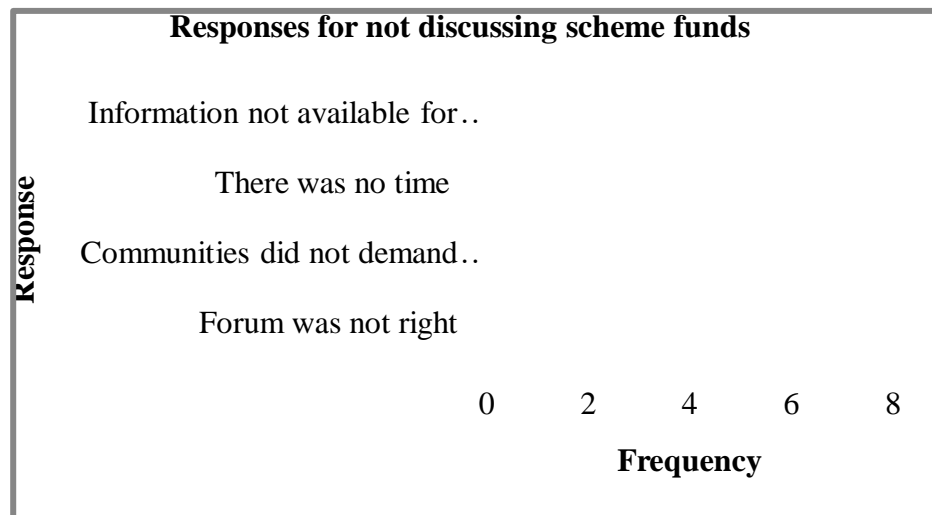


Figure 34: Reasons for not discussing scheme funds in meetings in Makwawa North

Similarly, results from Makwawa South indicate that most community representatives gave reason that information is not available for public consumption while others gave reason that communities did not demand such information.

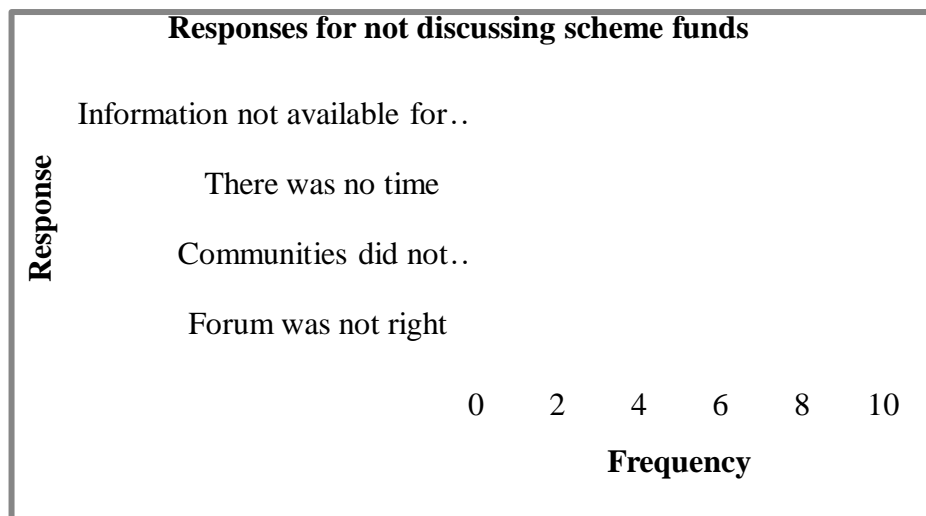


Figure 35: Reasons for not discussing scheme funds in meetings in Makwawa South

With respect to community access to scheme workers; results in figure 36 shows that 63% of respondents from Makwawa North indicated that they do not have access to the Local Utility Operator of their scheme.

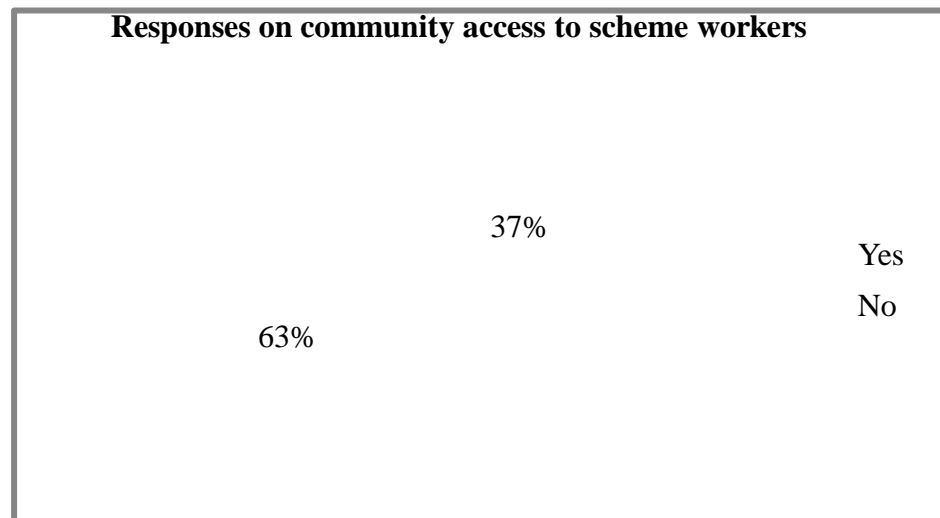


Figure 36: Proportion of respondents with access to Local Utility Operator in Makwawa North

Similarly, the results in figure 37 shows that 84% of respondents in Makwawa South indicated that they do not have access to their local utility operator.

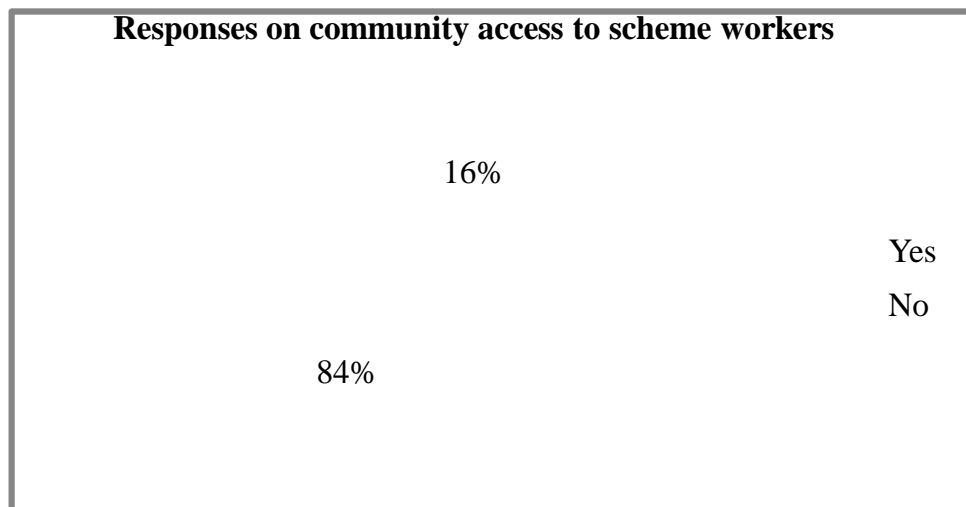


Figure 37: Proportion of respondents with access to Local Utility Operator in Makwawa South

The respondents were further asked to give reasons for not having access to Local Utility Operator. Results are presented in table 20.

Table 20: Summary of responses for not having access to Local Utility Operator

WUA					
	Makwawa North		Makwawa South		
Response	Number (N=24)	Percent (%)	Number (N=37)	Percent (%)	Total
WUA board perform all the duties	15	63%	20	54%	35
Local Utility Operator resigned	1	4%	3	8%	4
Community does not know a Local Utility Operator (LUO)	7	29%	14	38%	21
Local Utility Operator stays at the WUA office	1	4%	0	0%	1
Total	24	100%	37	100%	61

The results in the table 20 shows that majority of respondents indicated that the reason is because the WUA board performs all Local Utility Operator duties. Table 20 further indicates that some respondents from Makwawa North and Makwawa South do not even know that the scheme has a LUO.

Regarding indicator (ii), *Community members control scheme funds*; results presented in table 21 shows that respondents in Makwawa North and Makwawa South indicated that community members have no control over how scheme revenue should be used.

Table 21: Responses on who controls scheme funds

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Water committee	1	3%	7	16%	8
WUA board	37	97%	29	66%	66
Community	0	0%	1	2%	1
No idea	0	0%	7	16%	7
Total	38	100%	44	100%	82

Regarding indicator (iii) *an agreed percentage of scheme revenue is committed to community led projects*; results presented in figure 38 shows that respondents from Makwawa North indicated that there is no agreed percent of scheme revenue committed to community led projects such as maintenance and replacement of worn out bib taps at village level.

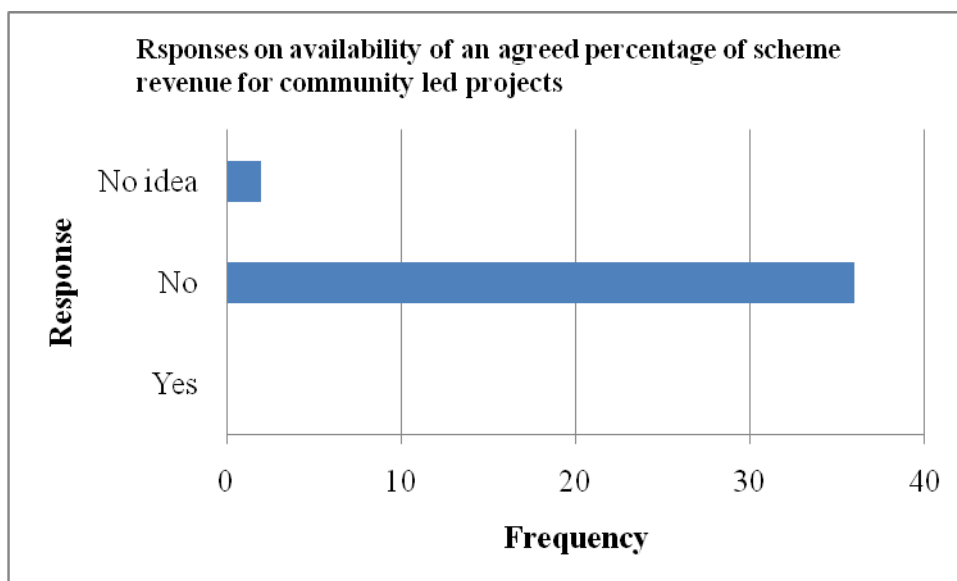


Figure 38: Responses on availability of an agreed percent of scheme revenue committed to community led projects in Makwawa North

Similarly, the results in figure 39 indicate that in Makwawa South there is no an agreed percentage of scheme revenue committed to community led projects.

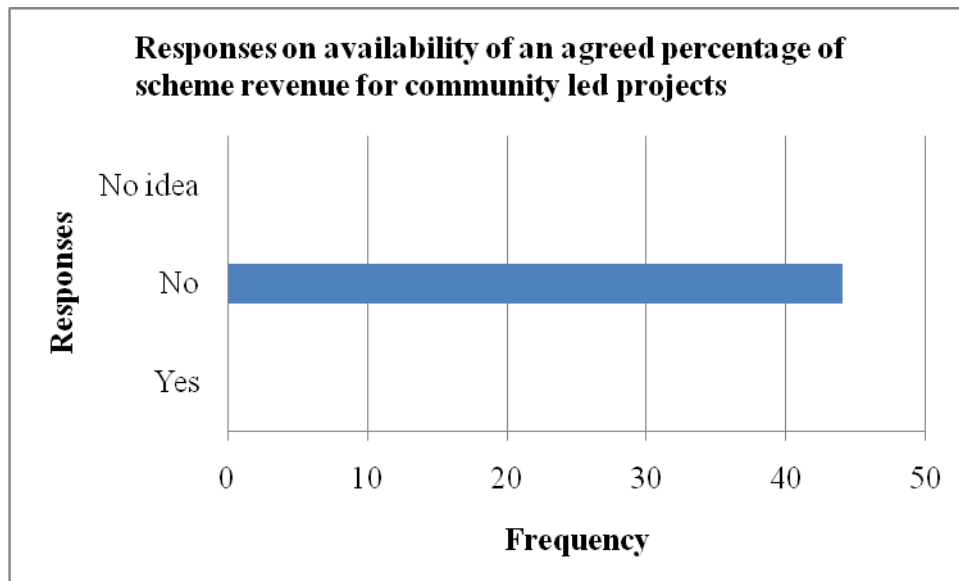


Figure 39: Responses on availability of an agreed percent of scheme revenue committed to community led projects in Makwawa South

4.4 Dimension of inclusiveness

This is the second core dimension of community participation proposed by Yorkshire Forward (2000) and adapted by the study in order to assess how Water Users Associations ensure that all groups and interests in the community can participate and the way in which inequality is addressed.

4.4.1 Benchmark 1: Reflection of diversity of local communities and interests at all levels of the WUA structure

For purposes of this study two indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) An increasing range of people from within all communities feel involved and that their needs are being met.
- (ii) Scheme funds are directed at the needs of the most marginalized communities.

Regarding *indicator (i)*, *an increasing range of people from within all communities feel involved and that their needs are being met.*

With respect to community needs being met, the respondents were asked if the water supply is sufficient to meet daily needs. The results presented in figure 40 shows that 97% of

respondents from Makwawa North indicated that water supply is sufficient to meet daily needs.

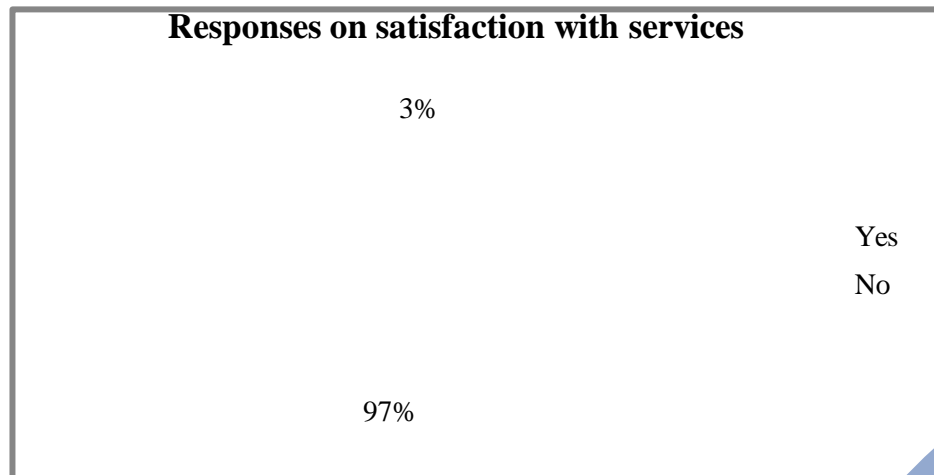


Figure 40: Proportion of respondents with sufficient water supply for daily needs in Makwawa North

Similarly, results in Makwawa South shows that 89% of respondents indicated that they get sufficient water supply for their daily needs.

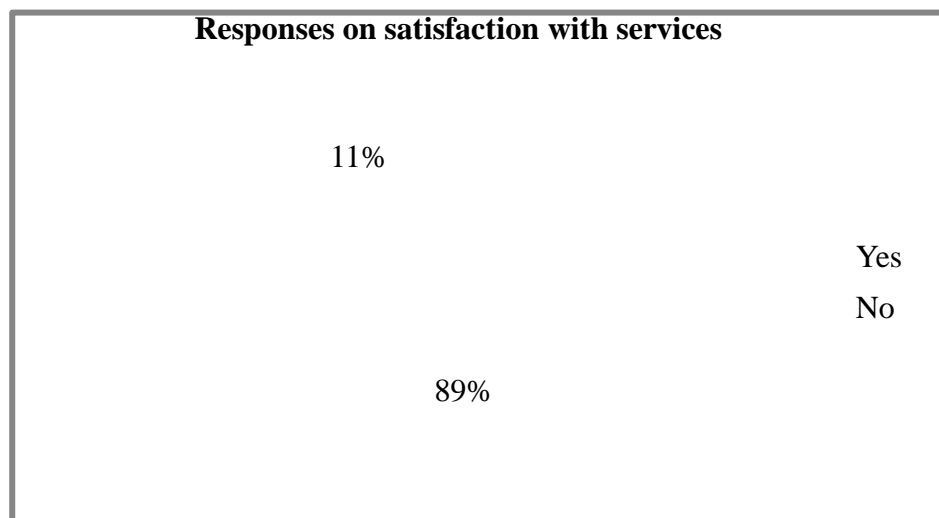


Figure 41: Proportion of respondents with sufficient water supply for daily needs in Makwawa South

With respect to increasing range of people from within all communities feeling involved in scheme affairs, interviews with most people in the two schemes indicated that majority of water users feel alienated from the WUA by community representatives as shown by lack of consultations during decision making processes.

Regarding indicator (ii) *Scheme funds are directed at the needs of the most marginalized communities*; FGDs with purposively selected WUA representatives from the Board and General Assembly in the two schemes on prior budgeting about expenditure before revenue has already been collected indicated that the WUAs operate on a budget. While putting this into perspective FGD participants commented that:

‘Mabajeti timapanga mwezi ndi mwezi koma ndalama zikafika zambiri timagwiritsa ntchito polipira antchito’ meaning *‘We make monthly budgets but most of the funds collected goes into wages for scheme workers’*

The FGD participants were further asked about any funds directed to marginalized communities such as those living close to the catchment area where there is no piped water or boreholes but are critical to catchment protection. The participants indicated that there are no any funds directed to such communities. While putting this into perspective FGD participants commented that:

‘Kumakhala kovuta kuwafikira anthu ngati amenewa chifukwa choti ndalama imene timatolera simakwanila ndipo ndikofunika kuti aku boma atithandize ku mbaliya zipangizo kuti anthu amenewa athenso kupindula poti amatisamalira chilengedwe ngakhale samwa nawo madzi.’ Meaning:

‘it is difficult to reach out to such people because of financial constraints such that we are asking government to assist us with materials so that these people should also benefit since they assist in catchment conservation though they don’t get any benefits from the scheme’

4.4.2 Benchmark 2: ***Equal opportunity policies are in place and implemented.***

For the purposes of this study two indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) An equal opportunities policy is developed, acted upon and monitored at scheme level.
- (ii) Training and support around equal opportunities and ant-discriminatory practices and the development of appropriate policies is provided.

Regarding indicator (i), *an equal opportunities policy is developed, acted upon and monitored at scheme level*; results in figures 42 and 43 shows responses to availability of mechanisms for inclusion of diverse groups or special arrangements for inclusion of special categories e.g.

women, girls, youth, poor and other often less represented and disadvantaged groups on all decision making structures of the WUAs under study.

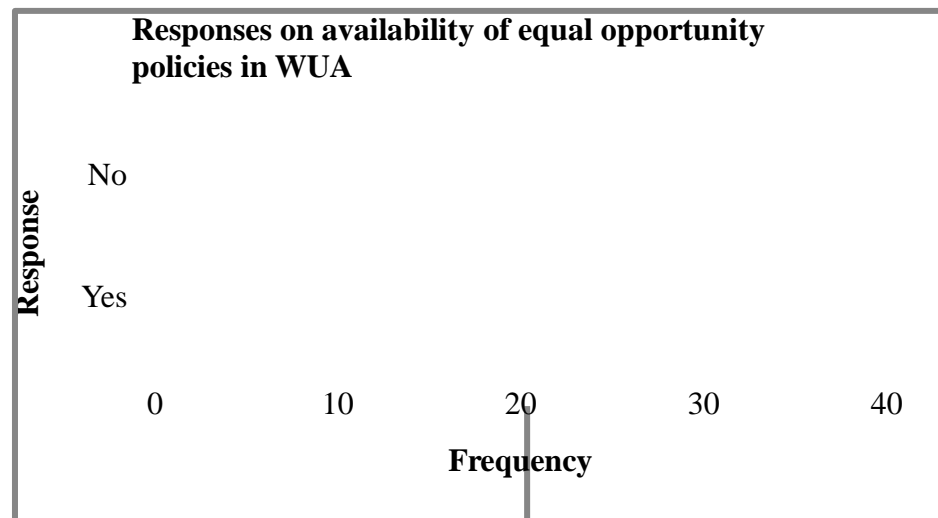


Figure 42: Availability of mechanisms for inclusion of diverse groups of local community in Makwawa North

The results show that majority of respondents from Makwawa North and Makwawa South indicated that there are no deliberate mechanisms for inclusion of diverse or special groups in decision making structures of the WUA.

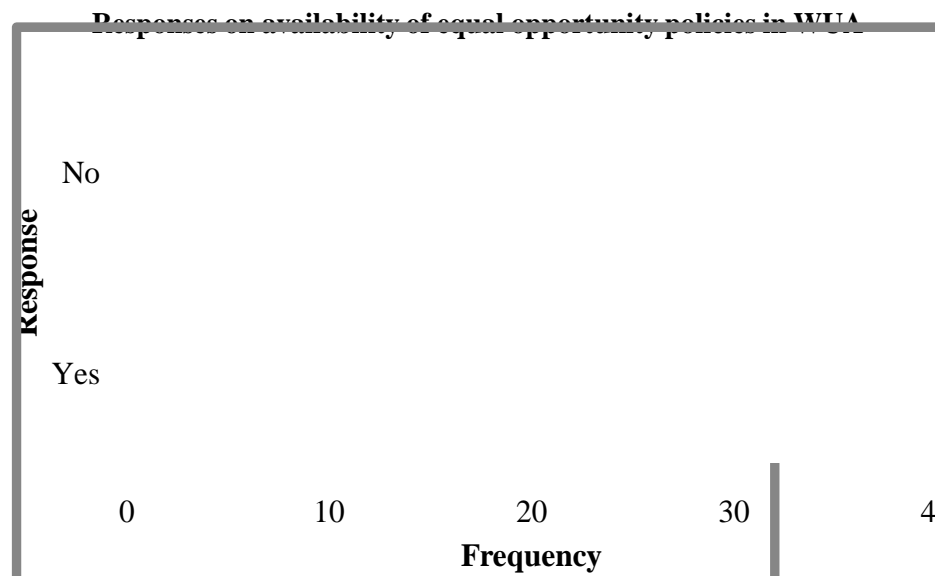


Figure 43: Availability of mechanisms for inclusion of diverse groups of local community in Makwawa South

Respondents who indicated that there are no inclusion mechanisms were asked if in practice such groups are involved. According to the results presented in table 22, 97% and 80% of respondents from Makwawa North and Makwawa South respectively indicated that in practice community representatives do not reflect the diversity of local communities.

Table 22: Responses on inclusion of other groups in Practice

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	0	0%	9	20%	9
No	37	97%	35	80%	72
No Idea	1	3%	0	0%	1
Total	38	100%	44	100%	82

Key informant interviews with Government officials at Zomba District Council on equal opportunity policies indicated that such mechanisms are entrenched in the National Gender Policy (2000) and National Water Policy (2005) that encourage women and disadvantaged groups to participate in water supply and sanitation activities to ensure continuity in service delivery and thereby sustainability. Putting this into perspective the District Community Development Officer, Enoch Linje (personal communication, July 2015) commented that:

‘One way of main streaming equal opportunities policies in rural water supply are by enabling women and other disadvantaged groups to have roles in decision making. Moreover, assist women, to get out of the traditional crushing workload of fetching and carrying water for family use and elect them into decision making positions in all WUA structures. In fact membership of water point committees has a prescribed ratio of 2:1 in favour of women’

On monitoring implementation of equal opportunity policies another key informant from the District Water Development Office, Mac Pherson Kuseli (personal communication, July 2015) commented that:

‘When electing committee membership at village level, we ensure that the process is open to participation of all disadvantaged groups in the

communities especially women who are responsible for household chores including fetching water'

Regarding indicator (ii), *Training and support around equal opportunities and anti-discriminatory practices and the development of appropriate policies is provided;* results presented in table 23 show that 89% and 84% of tap committee members in Makwawa North and Makwawa South indicated that representatives in the Water Users Association did not receive training on equal opportunities and anti-discriminatory practices.

Table 23: Responses on training and support of community representatives on equal opportunity policy

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	7	11%	8	14%	15
No	53	89%	50	84%	103
No idea	0	0%	2	2%	2
Total	60	100%	60	100%	120

With respect to knowledge as a result of training on equal opportunities and anti-discriminatory practices, key informant interviews were conducted with purposively selected community representatives and Government officials on predominant gender issues in the community. Results in table 24 summarize responses given on Gender issues in water supply and sanitation.

Table 24: Summary of responses on Gender issues in water supply and sanitation

Respondent	Gender Issue
Community member	Low participation of men in sanitation on water points
Community member	Low education levels of women on water and sanitation
Community member	Low involvement of women in the management of water supply and sanitation activities
Community member	Key decision making positions in the WUA are dominated by men resulting in low participation by women
Community member	Responsibilities of collection of water rests in the hands of women and girls
Government official	Women may have access to resources but might not have control over them due to their subordinate position in the community or household this weakens their bargaining power as such cannot influence decisions
Government official	Existing training manuals silent on issues of Gender mainstreaming

4.5 Dimension of communication

This is the third core dimension of community participation proposed by Yorkshire Forward (2000) and adapted by the study in order to assess how Water Users Associations develop effective ways of sharing information with communities and clear procedures that maximize community participation.

4.5.1 Benchmark 1: A two way information strategy is developed and implemented

For purposes of this study three indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) Information is provided in plain and relevant languages and in a variety of forms.
- (ii) Information is circulated from, to and within the community.
- (iii) Communities are informed in advance of WUA planning processes and activities to enable participation.

Regarding *indicator (i), Information is provided in plain and relevant languages and in a variety of forms*; respondents were asked if financial and records are made publicly available and also communicated in simple and understandable forms by the committee or WUA board. The results presented in Table 25, show that 95% of respondents in both schemes indicated that financial records are not made public and also not communicated in simple and understandable form.

Table 25: Proportion of respondents with access to financial records made public in simple and understandable form

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	1	3%	2	5%	3
No	36	95%	42	95%	78
No idea	1	3%	0	0%	1
Total	38	100%	44	100%	82

With respect to language and variety of communication forms, community representatives involved in FGDs revealed that information on finances and other technical issues is written in English.

Regarding *indicator (ii) Information is circulated from, to and within the community*; results presented in table 26 shows that 92% of respondents in Makwawa North indicated that they do not get informed about decisions made by the tap committees or WUA Board. In Makwawa South 84% of the respondents to a household questionnaire indicated that they also do not get informed about decisions.

Table 26: Proportion of respondents that are informed about decisions made by tap committees or WUA Boards

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	2	5%	7	16%	9
No	35	92%	37	84%	72
No idea	1	3%	0	0%	1
Total	38	100%	44	100%	82

Regarding indicator (iii) *Communities are informed in advance of WUA planning processes and activities to enable participation*; respondents were asked if committees or WUA Board communicate plans and activities in advance to enable participation. Results in table 27 show that 66% and 68% of respondents in Makwawa North and Makwawa South respectively indicated that representatives in the WUA board or tap committees do not communicate plans and activities in advance to enable participation.

Table 27: Proportion of respondents who get information about WUA plans in advance

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	10	26%	14	32%	24
No	25	66%	30	68%	55
No idea	3	8%	0	0%	3
Total	38	100%	44	100%	82

With respect to feedback to this communication, table 28 shows that 76% and 57% of respondents from Makwawa North and Makwawa South respectively do not give any feedback or inputs to this communication of WUA plans.

Table 28: Proportion of respondents who give inputs/feedback to communication on WUA plans

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	4	11%	16	36%	20
No	29	76%	25	57%	54
No idea	5	13%	3	7%	8
Total	38	100%	44	100%	82

4.5.2 Benchmark 2: Scheme/WUA procedures are clear and accessible

This study prioritized and assessed three indicators for this benchmark. The indicators that were used to assess this benchmark are:

- (i) Bureaucracy is kept to a minimum.
- (ii) The terms of reference of WUA structures is known by communities.
- (iii) Briefing sessions are provided for community members new to the scheme.

Regarding *indicator (i), Bureaucracy is kept at the minimum*; respondents were asked if it is possible to meet with people in decision making positions of the WUA structure directly and on demand or one has to follow some procedures. Results presented in figure 44 shows that 100% of respondents in Makwawa North indicated that it is not possible to meet with people in decision making positions of the WUA on demand.

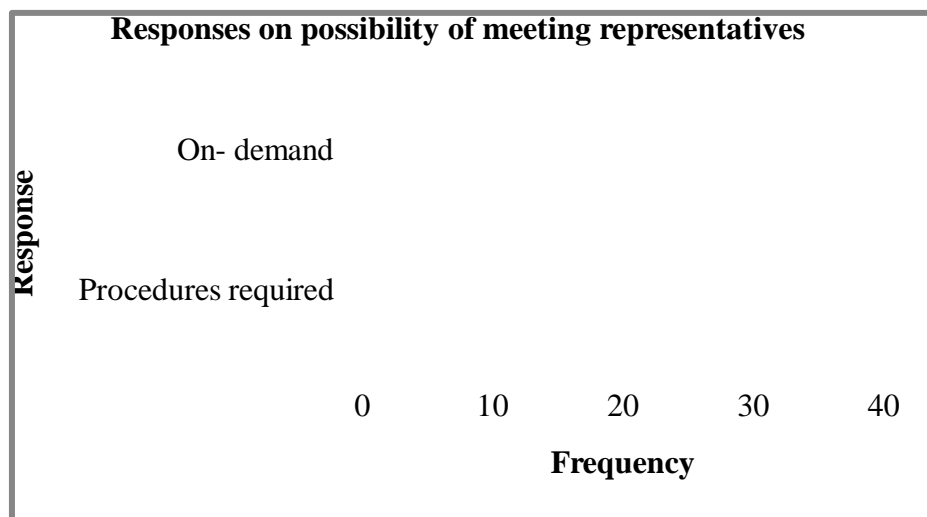


Figure 44: Responses on possibility of meeting WUA representatives directly and on demand in Makwawa North

Similarly, the results in figure 45 indicate that in Makwawa South community members cannot meet with their representatives on demand.

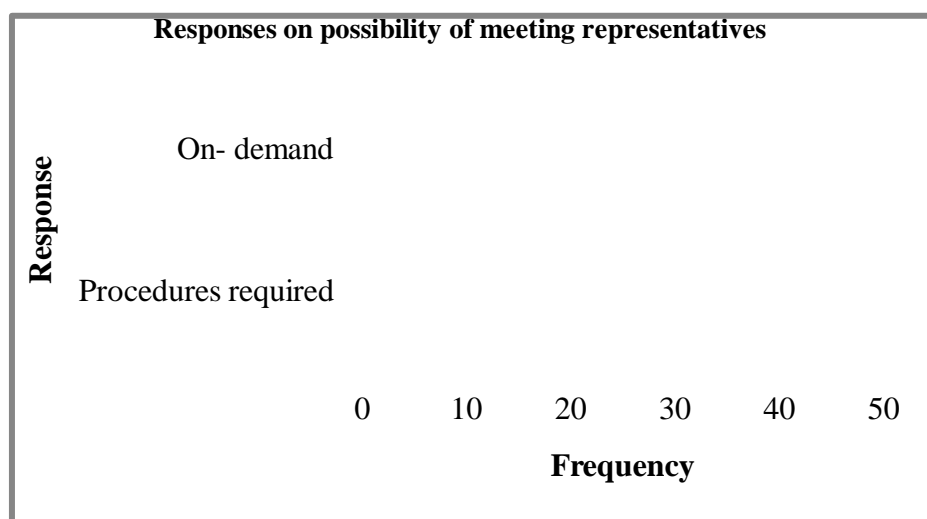


Figure 45: Responses on possibility of meeting WUA representatives directly and on demand in Makwawa South

Regarding indicator (ii), the terms of reference of WUA structures is known by communities; respondents were asked about knowledge of roles of tap committees and other WUA representatives. Table 29 summarizes answers given by respondents from the two schemes.

Table 29: Common responses on roles and responsibilities of tap committees and other community representatives in the WUA

	Common responses	Makwawa North		Makwawa South	
		Frequency (N=38)	%	Frequency (N=44)	%
Tap committee	-Collecting money from users	30	79	40	91
	-Reporting to village head	1	3	0	0
	-Maintaining water points (tap)	2	5	4	9
	-Enforcing water point by-laws	2	5	0	0
	-Promoting sanitation and hygiene	3	8	0	0
		38	100	44	100
Other WUA representatives (Board and General Assembly)	-No idea	10	26	13	30
	-Collecting money from users	20	53	10	23
	-Conducting meetings	0	0	1	2
	-Maintaining System and water points	8	21	20	45
		38	100	44	100

The researcher triangulated this information with roles and responsibilities of these WUA structures indicated in the Water Users Association training manual developed by the Ministry responsible for water affairs. The results are presented in boxes 1, 2 and 3.

Box 1: Roles and Responsibilities of Tap Committees

- (i) Keeping records of money, meetings and water point maintenance
- (ii) Protecting communal water point (CWP) against theft and vandalism
- (iii) Monitoring construction of CWP;
- (iv) Deciding on how funds for maintenance of CWP should be raised/managed;
- (v) Promoting hygiene and sanitation practices in the community;
- (vi) Working hand in hand with Extension Worker Teams (EWT) and Village Health and Water Committees (VHWC) in preparing facility management plans and other matters;
- (v) Mainstreaming of issues of gender, environment and HIV/AIDS.

Source: Water Users Association Training Manual (April 2009)

Box 2: Powers, Functions & Duties of General Assembly

- (i) To appoint members of the Board of Trustees of the Association;
- (ii) To approve the budget for the operations and maintenance or extension of the scheme infrastructure or acquisition of other capital assets;
- (iii) To attend and participate in all deliberations of the Annual General Meeting or any such other meetings of the association;
- (iv) To receive, deliberate upon and adopt all annual reports, financial statements and performance reports from the Board of Trustees;
- (v) To receive, deliberate upon and approve all proposed major operational policy changes affecting the general running and management of the Association;

Source: Water Users Association Training Manual (April 2009)

Box 3: Powers, functions & Duties of Board of Trustees

- (i) To raise and receive funds and donations for the purposes of the Association;
- (ii) To sue or be sued on behalf of the Association in their joint names;
- (iii) To co-operate with the Government, stakeholders and other Authorities and agencies on matters relating to the of the Association;
- (iv) To propose the appropriate water tariffs to be paid by the water users on recommendations from the Secretariat;
- (v) To accept moneys and assets of any description from any stakeholder for the purposes of the Association and to use such moneys and assets in a manner consistent with the objects of the Association;
- (vi) To appoint members of the Secretariat and to do all such other lawful things as in the opinion of the Trustees may be requisite for the effective management of the Association;
- (vii) To approve the financial expenditure estimates of the Association for each year as prepared by the Secretariat and the programme for implementation of the activities;
- (viii) To appraise and evaluate the performance of the Secretariat and other sub-committees of the Association and to determine their levels of remuneration and other conditions, where applicable;
- (ix) To operate bank accounts in any financial institution in Malawi;

Source: Water Users Association Training Manual (April 2009)

Regarding indicator (iii), Briefing sessions are provided for community members new to the scheme or WUA; respondents were asked about briefing sessions organized by community representatives for community members new to the scheme or WUA. Results presented in table 30 shows that 100% of respondents in both schemes indicate that new community members are not briefed on procedures and terms of reference of WUA structures.

Table 30: Responses on briefing sessions for new community members

WUA					
	Makwawa North		Makwawa South		
Response	Number	Percent (%)	Number	Percent (%)	Total
Yes	0	0%	0	0%	0
No	38	100%	44	100%	82
No idea	0	0%	0	0%	0
Total	38	100%	44	100%	82

4.6 Dimension of capacity

This dimension is about developing the understanding, skills, knowledge and the organizational capacity of communities.

4.6.1 Benchmark1: Communities are well resourced to participate.

For purposes of this study three indicators were prioritized. The indicators that were used to assess this benchmark are:

- (i) Support and training are provided to enable communities to take control over assets and decision making.
- (ii) Secretariat services are provided for community representatives.
- (iii) A pool of resources including technical advice and support is provided for use by Water Users Associations.

Regarding *indicator (i)*, *Support and training are provided to enable communities to take control over assets and decision making*; results in figures 46 and 47 present responses made by board members in the two schemes on whether the training they received is adequate for them to take control of the schemes and all associated assets.

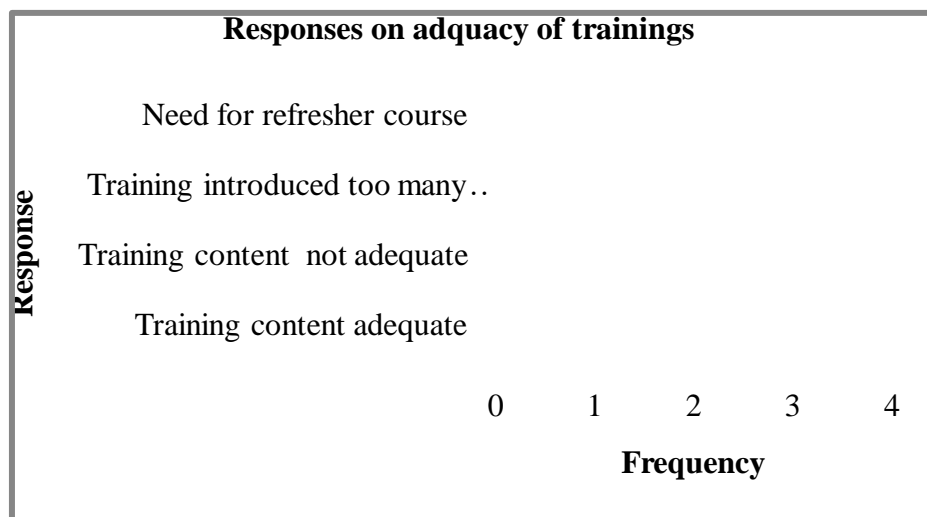


Figure 46: Adequacy of trainings provided to enable communities take control of scheme assets in Makwawa North

The result in figures 46 and 47 show that the training content delivered was adequate to enable communities take control over scheme assets. The results also reflect that currently the community representatives need refresher trainings.

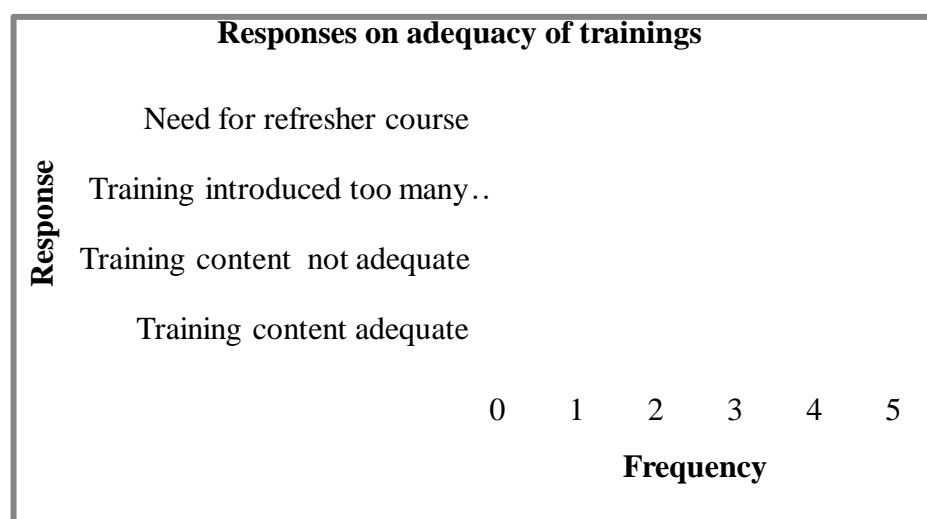


Figure 47: Adequacy of trainings provided to enable communities take control of scheme assets in Makwawa South

The participants were further asked about any support from external agencies including, District Council in order for them to fully take control over scheme assets. Table 31 presents a list of external agencies that support the Water Users Associations.

Table 31: List of supporting agencies and nature of support to WUAs

Agency	Roles/Support
District Water Office	Capacity building, Asset maintenance, Performance appraisal of WUAs
Private sector /NGOs	None
National Water Development Programme/Ministry of Irrigation and Water Development	Materials for asset maintenance and expansion, Offices blocks and equipment, Seed money for stuff recruitment (wages for first six months), Financing of scheme rehabilitation works.
District Health Office	Sanitation and Hygiene education

Plate 3: Training session for Makwawa North and Makwawa South WUA board members



Source: District Water Development Office (2013)

Regarding indicator, (ii) *Secretariat services are provided for community representative;* Table 32 contains list of secretariat entitlements provided to the community representatives to facilitate participation.

Table 32: list of secretariat entitlements provided to WUAs by Government

	Secretariat Entitlements to Water Users Association	Purpose
1	Office premises	Administrative support
2	Office Furniture and equipment	Administrative support
3	Motor cycle	Operational support
4	Office personnel including scheme manager (Local Utility Operator)	Administrative and Operational support

Regarding indicator (iii), *a pool of resources including technical advice and support is provided for use by Water Users Associations;* key informant interviews with District Council officials as well as review of finance documents from the finance office (Director of Finance) indicated that the District Water Development Office is the list funded sector in the council. Table 33 presents annual approved estimates of expenditure on recurrent budget devolved sectors over financial years 2009/10-2013/14 in Zomba District Council.

Table 33: Annual approved estimates of expenditure for Government Departments in Zomba District (2009/10-2013/14 financial years)

Annual approved estimates of expenditure on recurrent budget (MK).					
Devolved Sector	2009/10	2010/11	2011/12	2012/13	2013/14
Agriculture	19,353,198.00	16,613,405.00	16,613,400.00	16,613,400.00	35,828,502.00
Education	33,288,738.00	53,750,486.00	107,419,139.00	263,323,590.00	362,243,616.00
Health	435,247,578.00	435,247,578.00	468,168,161.00	414,967,074.00	455,535,437.00
housing	2,345,650.00	2,239,773.00	2,239,773.00	2,239,773.00	3,359,660.00
Trade	1,634,318.00	2,052,034.00	2,052,034.00	2,052,034.00	3,078,051.00
*Water	471,275.00	450,524.00	450,524.00	450,524.00	675,785.00
Gender	1,286,071.00	2,235,763.00	4,439,251.00	4,439,251.00	9,670,658.00
Environment	1,131,606.00	1,033,150.00	1,090,388.00	1,090,388.00	4,677,522.00
Forestry	1,190,536.00	1,190,536.00	1,190,536.00	1,190,536.00	1,190,536.00
Fisheries	3,596,410.00	3,402,648.00	3,402,648.00	3,402,648.00	3,913,045.00
Labour	922,519.00	894,180.00	894,180.00	894,180.00	1,974,508.00
Irrigation	30,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00

Source: National Local Government finance Committee, 2015

Figure 48, illustrates a nominal increase in water sector approved annual expenditure budgets from the financial year 2009/10 to 2013/14.

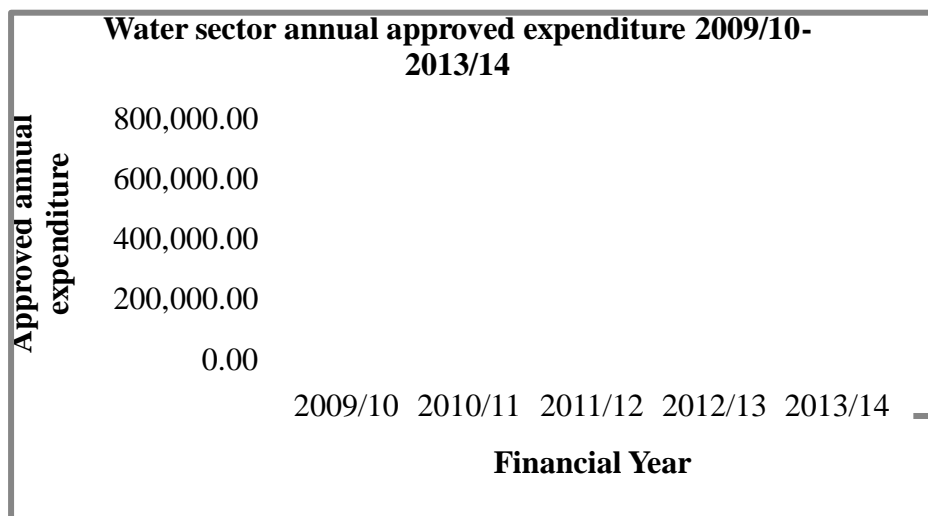


Figure 48: Zomba District Water sector annual approved expenditure 2009/10 to 2013/14

CHAPTER 5

DISCUSSION

5.1 Introduction

This chapter discusses the results of the study which sought to evaluate community participation in operation and maintenance of two rural piped water supply schemes managed by Water Users Associations in Zomba district. This discussion was informed by evidence collected by the researcher on four dimensions of community participation proposed by the Yorkshire Forward (2000) framework. The discussion begins by considering the involvement of communities in shaping plans or activities and all decision making in Water Users Associations. The discussion proceeds to look at valuing of diversity and addressing of inequalities in order to ensure inclusive participation in Water Users Associations. Then the chapter discusses the development of ways of information sharing with communities and clear procedures that maximize community participation in Water Users Associations. Lastly the chapter discusses the development of the understanding, skills, knowledge and the organizational capacity of communities in Water Users Associations.

5.2 Social-Economic characteristics of study respondents

5.2.1 Age and Sex of respondents

The study collected information from both sexes but females constituted the majority compared to their male counterparts (84% as compared to 26%) in both schemes under study. In general, most of the households that were approached expressed the feeling that women were better placed to recall issues in water supply than men. This agrees with findings by Cairncross & Valdmanis, (2006) that women dominate the collection and use of water in rural communities. An interesting part of the study findings is that more females were recorded at low levels of participation such as contribution of labour e.g. trench digging (plate 1) than males. Since women have bigger stake in water availability and usage at household level, their improved participation (decision making level) will encourage sustainability of the rural water supply schemes.

The ages of the majority of respondents ranged from 24-34 years (45% of respondents) in Makwawa North and 35- 45 years (48% of respondents) in Makwawa South. This showed that the ages of respondents were still economically active and no respondent was below 18 years. Most of these respondents would be able to engage in gainful economic activities,

which may help them to contribute cash towards O&M of water supply services in their respective schemes. Table 3 shows the age-sex profiles of the respondents.

5.2.2 Marital Status of respondents

Respondents were drawn from varied marital status, which ranged from married, widowed, divorced and singles. The majority of them were married (74% Makwawa North, 70% Makwawa South). Marital status is another factor which determines participation in rural development initiatives. In most cases levels of participation are low among women who are married. Instead are mostly represented by their husbands in development meetings. As is evident from a study by Adele and Tackie-Oforu (2013) that time is the major constraint to women's participation in rural water activities. It was observed that women are burdened with farm work coupled with domestic chores so that even when they mention that water is of crucial concern and an urgent need, they seemed not to have ample time on their hands to participate regularly in project activities.

5.2.3 Academic Qualification of Respondents

Respondents were of varying academic backgrounds. The 1998 Malawi Population and Housing Census defines literate persons as those people attending school up to primary school standard four (4) (National Statistical Office [NSO], 2000). The majority of the respondents had at least attended primary school (66% Makwawa North, 57% Makwawa South). Considering this definition of literacy the results in the study show that the respondents were literate and therefore could read and write. These people can be trained to manage community based projects if the program is planned well and therefore can participate effectively.

5.2.4 Occupation

The major occupation of people in the study area is farming. Table 3 shows that majority of respondents (63% Makwawa North, 68% Makwawa South) reported that they rely on agriculture to earn income while the rest mentioned informal employment and small scale businesses. Most of these farmers are in the small holder category where they mainly practice subsistence farming. This category can be considered as economically active hence can contribute cash towards financing of operation and maintenance of water supply services.

5.3 Dimension of influence

This is about the influence that communities have on shaping of plans and all decision making processes in the Water Users Association. This dimension of influence is critical to evaluation of community participation in rural development initiatives. Thus as part of effective and active participation, community should have influence and power over all aspects of the development intervention. For purposes of discussion the dimension was unpacked into specific benchmarks as reported in the previous chapter.

5.3.1 Benchmark 1: The community is recognized and valued as an equal partner at all stages of the process

For all the rhetoric of community involvement, communities are often the last to be considered when plans are being developed. It is important to be seen to be valuing community partners by ensuring they have an equal voice from the very start rather than half way through the process (Yorkshire Forward, 2000). Thus it is important that communities are involved in the identification, evidencing and interpretation of their own needs. In other words there must be a participatory needs assessment right from the beginning of every community-led project. However this initial assessment should be complemented by a system which will ensure that community members are involved in formulation of and their ideas form an integral part of the WUA plans. This initial assessment should also serve as a platform for identifying existing community capacities to deliver projects.

The active participation of the community in needs assessment but also in developing and executing WUA plans is critical because it helps to identify the real needs of the community as it enables community to give their own ideas on what they need so that the community interventions reflects those needs, aspirations and share vision, instead of basing on assumptions. Furthermore, this helps to identify existing and potential challenges so that solutions or mitigation measures can be identified and put in place to minimize the negative effects of such challenges which if not managed are more likely to affect the execution and outcomes of such interventions. On the same note it ensures that community members are part of the decision making process. As a result they own the decisions made and are more likely to abide by them. Furthermore their participation and influence in making WUA plans, can also contribute towards accountability and transparency as they are well aware of what was planned hence they are able to offer oversight.

As findings show, prior to the establishment of the WUAs, responsibility of water supply planning in both schemes was predominantly in the hands of main scheme committees as pointed out in figures 4 and 6 respectively. Noteworthy another 63% and 70% of the respondents from Makwawa North and South respectively, state that they were not consulted and involved in decision making by those responsible for water supply planning in this case the old scheme management committees as pointed out in figures 6 and 7 respectively. All this highlights the fact that there was limited participation and involvement of the beneficiary communities in the water supply schemes and that these schemes were detached from the communities they were supposed to serve. Furthermore these findings gives credence to the rationale for establishing WUAs which was supposed to be an improvement in community involvement and influence over management of rural piped water supply schemes following principles of equity.

However, the findings of the study have shown that there is discordance between policy and practice. For instance while 79% of respondents in Makwawa North reported that they were consulted during formation of Water Users Association, only 41% from Makwawa South indicated that they were consulted. Even though there was some form of consultation, however 58% and 56% of respondents from Makwawa North and South respectively indicate that communities were not accorded an opportunity to give inputs or ideas during the consultation process by the Government Officials responsible for such consultations. The consultation process would give the Government an insight into the needs of the community especially how they want the schemes or Water Users Associations to function so that needs of diverse groups are addressed. Therefore, there was no forum for exchanging information, learning and listening to real needs of the target participants, but a forum for informing potential participants about the project and its objectives. There was no indication that the intended participants could change or influence the design of the project. Apparently several authors including ones quoted in this study have emphasized the importance of initial meetings with communities before projects are implemented. As observed by Klemeir (2000), that the first meeting is needed in order to explain the project's objective before it begins and also an opportunity to the community to refuse or accept the project. Everett (2001) indicated that where the community feel that they are not part of the design, they are likely to lose interest and not assume ownership of the project.

Other than lack of proper involvement of local community members during consultation for formation of the WUAs, the study also found that there is currently limited involvement of the

community. For instance 97% and 77% of respondents from Makwawa North and Makwawa South respectively reported that they are not involved in the development of WUA plans at the moment. While 100% and 77% of respondents from Makwawa North and South respectively responded that they are currently not involved in developing plans of how water resources will be managed at village level. This means that currently there is no involvement of the community members and that their ideas do not form an integral part of the WUA plans. However, Johnston (1982) said that where people have no share in planning or decision making and are merely complying with predetermined plans by providing materials, labour or even votes or acceptance of specific conditions is regarded as the lowest level of participation. Yorkshire Forward (2000) emphasizes that higher levels of community participation are always appropriate, desirable and beneficial.

A proper consultative process and needs assessment is required for identification of community capacity to deliver projects. Even though, the initial stages of the WUA establishment did not properly involve assessment of community needs and capacities there is evidence that some tasks were left to the communities when water supply lines were being constructed in the two schemes indicating intrinsic recognition of community capacity to deliver some projects. For instance study findings show that 66% and 77% of respondents indicated that they contributed to such projects by digging of trenches and laying of pipes. The results also indicate that currently people also contribute labour and cash for scheme operations. However, according to Imperato & Ruster (2003) labour or cash contributions does not constitute participation because participation in development projects is a process in which disadvantaged people are involved at different levels and the degree of intensity in the identification, timing, planning, design, implementation, evaluation and post-implementation stages of development projects.

5.3.2 Benchmark 2: Meaningful community representation on all decision making bodies of the Water Users Association

The critical word in this benchmark is 'meaningful'. While most community based institutions may claim to include community representation it is often seen as a token gesture and/or happens too late in the process. Representation needs to: (i) be in place at the very beginning(ii) be at all decision making levels (iii) Reflect range of community perspectives (iv) Be accountable to wider community (v) ensure that voices of communities are heard and do have some influence (Yorkshire Forward, 2000).

The first priority indicator for this benchmark was evidence that community representatives are elected by, and accountable to wider community. As part of participation there is a need to include beneficiary communities in management structures. Literature has shown that water user committees may work to increase participation by representing interests of users but also work as a communication conduit with the community to ensure that as many people as possible take part in the decision making process. User committees are said to give ordinary people at the local level some voice and influence over the implementation and, at times, the design of development programs and/or specific projects (Hoekstra 2006). The study findings indicated that Government officials from the local council led the consultation process but community representatives were elected by the wider community.

However, Manor (2004) in his study on user committees noted that in some cases, the members are largely or entirely nominated from above, usually by low-level civil servants from line ministries. Often this is in bid to have in those committees, people whom the low-level officials deem preferable and amenable. As a result this compromises the ability of the committee to effectively represent the interests of the beneficiary community. Furthermore low-level bureaucrats see a more assertive civil society as a threat to their autonomy. Evidence collected in this study does not indicate any interference by the frontline officers in the election of office bearers in the two Water Users Associations.

Democratic governance demand that elected community representatives should be socially accountable to the entire community that elected them. With respect to community representatives being accountable to the wider community members, findings indicated that the elected representatives do not communicate information from the top to the wider community and that even the lowest structures such as tap committees do not report to the community that elected them. Morris (2005) observed that communities that wish to become involved in decision making face real difficulties where the system is not open. Morris (2005) further argues that the point is not that the communities ought to have more power than their representatives but where the representatives choose to ignore community voices; it is extremely difficult for communities to have any influence.

In this study as indicated in table 7 the performance appraisal of WUA structures by local District Council does not include a community agenda or in other words is not participatory. This means community members have less power and influence over the elected representatives and consequently the community representatives in these structures do not feel

accountable to the people who elected them. It has been recognized in literature that participation in evaluation is important but rarely carried out and if direct methods of evaluation are not available, communities will invariably evaluate projects indirectly through using patterns of facilities provided (Cohen & Uphoff 1980). For example, the quality of civil works on communal water points (see plate 2) might indicate that the WUAs are not directing scheme revenue towards construction or rehabilitation of such structures.

The second indicator on this benchmark was evidence that community representatives reflect the diversity of local community. The results of the study have revealed the visibility of more women than men especially in tap committees and absence of the Youth or disabled people in all levels of the WUA structure. The results as indicated in table 6 shows that tap committees in six randomly selected villages in the two schemes are dominated by women with a representation of 85%. This is in agreement with results from other studies where the explanation given was that women dominate the collection and use of water (Cairncross, & Valdmanis, 2006). This result also agrees with gender desegregated data of respondents in the household interviews, where in general many of the households approached expressed the sentiment that women were better placed to recall water supply issues in the community than their male counterparts hence more participation of women than men in the household interviews. However, the representation of women in higher structures like the WUA boards where major decisions on community water supply issues are made is low as shown in table 7. This has an implication on the power relations as the male members by virtue of higher numerical status and position in society may dominate the decision making process in the Water Users Association. This implies that decisions made in higher level and hugely male dominated WUA structures may not be favorable to women who are water managers at the household level hence affecting their overall participation in operation and maintenance of the schemes. Apart from male dominance in decision making by virtue of their social status, other research findings indicate that women participation in water supply though critical is hindered due to their lack of knowledge and confidence about technological matters and particularly negative male attitude towards females in traditional communities (Ladele & Tackie-Oforu, 2013).

Apart from the gender disparities in the decision making structures of the Water Users Associations, the findings also reviewed that the youth especially those with ages below 25 year are not represented in the WUA boards. For instance, the findings as shown in figures 28 and 29 indicate that 86% of the members fall within the age bracket of 25-40 years, which implies

that all decisions that are made do not represent views of the very active age group of below 25 years (youth group) which represent 52.6% of all the inhabitants in the district (NSO, 2008). Robinson and Green (2010) gives credence to this finding and explains that actively engaging youth in community projects can implicitly acknowledge youth as viable and efficient members of the community and has the potential to result in deeper rooted and more sustainable community change. So it is very important that young people actively take part in management of the Water Users Associations. In addition to that, the membership registers of the two WUAs do not indicate representation from the physically disabled people in the community at any level. Thus, as seen above the community representation in the WUA structures do not reflect the realities and diversity of local community.

The third indicator on this benchmark was evidence that decision making is open and participative. There has been increasing recognition that participation needs to be sustainable. For a sustainable participation there's a need for the decision making process to be open to all water users, however, results of the study indicate that only community representatives are involved in decision making meaning that the process is not participative and open to ordinary water users in the community. Participation in decisions about how revenue collected from users should be utilized is critical to sustainable community participation in operation and maintenance of a rural water supply scheme. The findings of this study show that in the two Water Users Associations only the WUA board members are involved in decisions on how scheme revenue should be utilized because apart from interacting with village chiefs few community meetings are conducted where the ordinary water users are not given the opportunity to give their inputs on how scheme revenue should be used as indicated in Figure 31. This is in accordance with the argument put forward by Vincent(2004) that in community projects the elite tend to retain for themselves the right to guide the process and decide who participates, how and what gets funded. This may lead to discontent on the part of ordinary community members especially those that feel that the WUA is not responsive to their needs and that community representatives are abusing scheme funds. Meetings can be used as an important tool towards the sustainability of the schemes. The frequency of meetings based on the findings in table 18 was inadequate such that people are denied an opportunity to access information, reaching decisions collectively or resolving a particular problem through discussion.

5.3.3 Benchmark 3: All community members have opportunity to participate

For community members to participate effectively creative approaches should be taken to engage the entire community. The community members should also have an understanding of the scope of their influence and be informed of their outcomes. The elected community representatives must also ensure that all barriers to participation are recognized and addressed so that an increasing number of community members are participating in a meaningful way.

The findings of the study revealed a range of creative ways that community members use to engage the wider community members in dialogue as indicated in table 10, however, these approaches are just cosmetic in the sense that nothing is put into practice since a huge portion of the respondents of the study reported that WUA representatives rarely conduct meetings and where an attempt is made only village heads are invited. Community members as indicated by the study findings in table 11 have knowledge about their rights to demand information from their representatives in the Water Users Association but only 24% of respondents from Makwawa North indicated that ordinary water users have an opportunity to demand information from their representatives compared to 66% in Makwawa South who reported the opposite. However the respondents who said have a chance to demand information reported that in practice they don't ask for that information. This may point to the fact that there are intrinsic factors that may create a situation where a water user has knowledge of his rights but chose not to exercise the rights. The most probable reason or barrier to community participation in this regard could be limited understanding of the WUA concept and what it entails by the local community members including elected representatives in the WUA structure as indicated in table 14. This finding concurs with Davids (2005) that illiteracy is an inhibiting factor in community participation, and the majority of people in the two schemes are semi-illiterate subsistence farmers. The findings also revealed that community members and Government officials at the District Council recognize barriers to active community participation in the schemes. Based on the findings above and explanation of factors hindering participation it is apparent that the understanding of community participation by Government officials is only in theory and not practice since nothing proposed as a way to address the challenges is ever put into practice.

The findings further reveal that although communities participated in the initial stages of construction through contributions whether material, financial or physical for water to reach their villages and are also currently paying monthly water tariffs; this participation is short of being meaningful because the findings as reported in earlier and subsequent sections show that

they are not involved in making decisions on how financial and water resources should be managed in their villages. In the final analysis, it can be said that although the processes of WUA formation in the two schemes was consultative in principle, practically the WUAs are currently not according an opportunity for all community members to participate and own key decisions on operation and maintenance of their schemes. Thus, as seen above an increasing number of community members do not participate in a meaningful way hence, have no power and influence over decision making.

5.3.4 Benchmark 4: Communities have access to and control over resources.

Communities often feel that it is people in decision making positions who control or benefit from scheme resources rather than the communities themselves (Yorkshire Forward, 2000). Therefore, it is important that community members have easy access to decision makers and scheme workers and that community members should have control over scheme funds and an agreed proportion of scheme revenue committed to community led projects.

Findings of this study indicated that elected representatives in the Water Users Associations rarely hold meetings with community members but village headmen hence missing a chance to get raw inputs from the community which lender all decisions not reflective of community diversity. For instance the findings as shown in table 18 indicate that on average 2 meetings are held over a period of 90 days in both schemes and in those meetings issues concerning scheme finances are not discussed. This does not resonate well with sustainable community participation which encourages transparency in financial transactions in community based organizations. Moreover the inability to ask for information about the welfare of the scheme resources by community members should not be a reason for not availing such information voluntarily because the tendency of treating financial information as privileged information only accessible by the elite within the decision making structures of the Water Users Association may also be a factor hindering active community participation. This finding confirms the views of Oakley, (1991) who mentioned that, rural people may share their poverty but there may be many factors which divide them and breed mutual distrust which might lead to lack of active participation. Case studies emphasize that it is key that communities have control over decisions, financial resources and upstream planning (World Bank, 1996; Narayan, 1995). So when a community is excluded from participating in making of decisions about the scheme funds then community members cannot have a claim of control over scheme resources.

The findings as shown in figures 38 and 39 indicated that there is no an agreed percent of scheme revenue committed to community led projects. Such a commitment would ensure that Water Users Associations direct resources to address needs of disadvantaged groups or marginalized communities. Absence of such commitments results into self-exclusion of such community sections from active participation in scheme activities.

Scheme workers or Local Utility Operators (LUO) are a vital part of the Water Users Associations since they manage, implement and execute all policies, strategies and activities as directed by the Board of Trustees on a daily basis (MoIWD, 2009), as such should be easily accessible to community members at all times. Well qualified and committed scheme workers are also vital in promoting participation of communities in scheme activities. The findings of the study as shown in figures 36 and 37 indicate that majority of ordinary water users in Makwawa North and Makwawa South do not have access to scheme workers (Local Utility Operator) because as indicated in table 20 the WUA board members perform all the duties of the LUO including collection of water tariffs and attending to breakdowns. Furthermore, other respondents indicated ignorance of availability of LUO; hence communities are denied professional skills and guidance that would ensure long term sustainability of the schemes. As a process of empowerment, active participation is concerned with development of skills and abilities to enable rural people to manage better or have a say or negotiate with existing development systems (Oakley, 1991). This implies that based on the reasons provided by the respondent, participants are not empowered enough to effectively participate due to lack of access LUOs who could play a role in empowering the communities they are supposed to serve.

Thus, as seen in paragraphs above community members in the two schemes cannot easily access decision makers and scheme workers, also have no control over scheme funds and there is no evidence that a certain proportion of scheme funds is set aside for community led projects such as those that could address needs of marginalized community members.

5.4 Dimension of inclusiveness

This dimension is about how Water Users Associations ensures that all groups and interests in the community can participate and the ways in which inequality is addressed. As reported in earlier chapters of this thesis, participation only becomes worthwhile if it is inclusive thus includes as many people as possible from divergent groups because if it is not inclusive it becomes cosmetic and goes against principles of equity. For the purposes of discussion the

dimension was unpacked and arranged according to specific benchmarks as reported in the earlier sections.

5.4.1 Benchmark 1: Reflection of diversity of local communities and interests at all levels of the Water Users Association structures

The diversity of local communities needs to be understood and valued as such Water Users Associations should make every effort to ensure they are reaching a broad range considering such factors as gender, age, physical disabilities and geographical location. The differing priorities and agendas of disabled people, young people or older people and women should be illustrated through involvement in consultation processes through to representation on decision making bodies.

An evaluation of this benchmark made use of two indicators. The first indicator was about an increasing range of people from within all communities feels involved and that their needs are being met. The second indicator was about whether scheme funds are directed at the needs of the most marginalized communities.

In terms of the first indicator, involvement of communities especially sections that feel marginalized like the youth, elderly, disabled and women in developing plans on how water resources will be managed and operated at village level would ensure that needs of the people are met and in the long run an increasing range of people develop satisfaction with the service level and performance of the WUA. The respondents interviewed in the study, who were mostly women (84%), indicated that they were not involved in the development of plans on how water resources will be used in their village before the WUAs were established. The findings also indicated that the situation is the same even after the WUAs were established and that the only thing that has probably changed is the service level as they are able to get sufficient water supply for daily needs. The lack of involvement of women in planning water resource issues and any other decision making processes within the scheme either by default or design leads to self-exclusion hence low participation. However, the satisfaction with service level may not be attributed to effectiveness and efficiency of the WUAs in service delivery but to recent rehabilitation works on the schemes by National Water Development Programme II in 2013 (DWDO, 2010). Apart from exclusion of women in decision making structures, other disadvantaged groups, such as disabled people and young people are either in the committees or there is no formal way of hearing their voices and concerns.

In terms of the second indicator, reaching out to diverse groups or even the most marginalized communities require that funds be committed for community led projects as per demands of such groups. However, findings of the study indicated that although there is prior budgeting of expenditure before collection of revenue, no specific percent is committed for community led projects including those directed at marginalized communities. In fact community representatives in the WUAs pointed out that a huge proportion of scheme revenue is spent on wages for scheme workers and very little is left for other projects that would benefit marginalized groups like communities living close to catchment areas. This forces such community members into exclusion and the entire community may lose out on knowledge and skills that these people would have contributed to the schemes.

5.4.2 Benchmark 2: Equal opportunity policies are in place and implemented

Many of the barriers to participation relate to inequality of opportunity. An understanding of these, of the degrees of confidence to participate, is crucial in creating equal access .An opportunity for one may be a barrier for another (Yorkshire Forward, 2000).

An evaluation of this benchmark made use of two indicators. The first indicator was evidence that an equal opportunity policy in the WUAs was developed, acted upon and monitored at scheme level. The second indicator was evidence that training and support around equal opportunities and anti-discriminatory practices are provided.

In terms of the first indicator, the necessity of having policies on equal opportunities and a monitoring framework for eventual implementation is critical to the sustainability of rural water supply schemes in the district. Community participation can be successful in cases where the community has genuinely been part of the process of the project (Mansuri and Rao, 2004) .The process involves equality in decision making throughout the project cycle (Simanowits, 1997). The process of working out a policy on equal opportunities should be as inclusive as possible to enable development of an understanding (Yorkshire Forward, 2000).

The findings of this study indicated that there is no equal opportunity policies developed and monitored at scheme level by the Water Users Associations. For instance, findings as shown in figures 42 and 43 indicate that the respondents from Makwawa North and Makwawa South pointed out that there are no available mechanisms for inclusion of diverse groups of local community in the WUA structures. It is clear from the findings that the two WUAs have no representation from the physically disabled and the youth in their ranks. This gives credence to

findings by Narivata and Matiya (2008) that a deliberate policy which ensures that a certain proportion of committee members represent the vulnerable is definitely worth pursuing and, in some cases, just having a mechanism to solicit the views of the vulnerable would be sufficient.

Interviews with key informants at the District Council indicated that although WUAs do not have own policies developed, other national policies such as the National Gender Policy (2000) and the National Water policy (2005) encourage the involvement of women and other disadvantaged groups in water supply and sanitation activities to ensure continuity of service delivery and thereby sustainability but, these national policies are so complex and majority of the community water users cannot understand them. In the absence of scheme level policies, the study has shown that gender related issues are monitored in the lower level structures such as tap committees following a requirement that women should be encouraged into decision making positions in water point committees (Macpherson Kuseli, Personal Communication, 2015). However, literature has shown that policy intervention in establishing a quota for women participation is a matter of achieving the numbers, in other words, a matter of quantity not quality because in the end the decision making discourse is still in the hands of men (Tam, 2012).

In terms of the second indicator, training and support around anti-discriminatory practices should be made available, and expected of all partners (Yorkshire Forward, 2000). The findings of this study as shown in table 23 indicated that no training and support was provided to the schemes by partners for development of equal opportunity policies. Hussein (2003) stresses need for motivation and training and civic education in order for people to participate intelligently in local development issues. In the absence of such support community members still indicated an awareness of key gender issues in community water supply and sanitation such as dominance of men in decision making processes and systematic exclusion of women. These issues obviously do not get resolved because of lack of proper forum and enabling policies at local level.

Thus, as seen in the paragraphs above, this study has shown that the problem of not having a clear policy at WUA level around equal opportunities and absence of support from partners has resulted into exclusion of certain groups from the community such as the youth and disabled in the decision making structures hence compromising equal participation by an increasing number of diverse groups in scheme activities.

5.5 Dimension of communication

This dimension is about institutions developing effective ways of sharing information with communities and clear procedures that maximize active community participation. Information (or lack of it) is cited as one of the greatest barriers to participation. Participation can be hampered if communities do not know what is happening in their scheme. It is important that there is a strategic approach to information collection and dissemination rather than bits and pieces on an ad hoc basis (Yorkshire Forward, 2000). For the purposes of discussion, the dimension was unpacked and arranged according to specific benchmarks as reported in the earlier sections.

5.5.1 Benchmark 1: A two way information strategy is developed and implemented

There is need for Water Users Associations to develop and implement improved communication systems so that people are well aware of what is happening at any stage and can suggest alternatives if they notice or face challenges. Information including major decisions that are pending should be communicated to people so that they participate in decision making. If communication is poor problems arise as it leaves room for needless suspicions and speculation within the community.

An evaluation of this benchmark made use of three indicators. The first indicator was evidence that information is provided in plain and relevant languages and in a variety of forms. The second indicator was evidence that information is circulated from, to and within the community. The third indicator was evidence that communities are informed in advance of WUA planning processes and activities to enable participation.

In terms of the first indicator, information about what is happening in the schemes should be made publicly available and opportunities provided for explanation and clarification. This information ought to be made available in plain and clear language and bureaucracy must be kept to the minimum (Yorkshire Forward, 2000). The findings of the study have shown that information such as scheme finances for both Makwawa North and Makwawa South is not made publicly available and is rarely included on the agenda in community meetings when held. This has a potential of endangering sustainability of the two schemes because financial issues are very sensitive and if not handled properly can lead into mistrust and eventually some community members may decide not to actively participate in scheme activities. The findings further revealed that the information is written in English language and uses jargon that is not

understood by even some of the elected representatives. It is apparent that this information when shared with the local water users, majority of which are semi-illiterate subsistence farmers could not be understood unless provided in plain and relevant languages and in a variety of forms.

In terms of the second indicator, Water Users Associations must develop procedures for reaching out to people they are representing through proper communication channels that should ensure that all information is circulated from, to and within the community in order to accord all water users an opportunity to be aware of everything happening in their respective schemes and these channels should also have a feedback loop.

However, this is in contrast with findings of the study which indicated that communities in both Makwawa North (92%) and Makwawa South (84%) do not get informed about decisions made by tap committees, or WUA board or in general there is poor information flow from the top to the bottom in both schemes. This shows that the Water Users Associations do not have proper procedures for circulating information with the community about water supply issues in their scheme as such most community members do not even know about what happens to the money they contribute for operation and maintenance of the two schemes. This finding has also been observed by Johnston (1982) who notes that the most needy and deprived, who may be the majority of the community, are not even consulted, let alone given part in the process of project implementation.

In terms of the third indicator, community members need to be given a period of notice and be informed in advance of WUA planning processes to enable them to fully participate in community meetings. The General Assembly members are basically responsible for informing local community members of all planning processes within the WUA so that everyone is aware of what is happening in the scheme at that particular time. This forum would accord every community member an opportunity to give own ideas or inputs on issues about water supply in the community. The General Assembly members are then supposed to channel all these ideas or inputs from the community at an appropriate forum such as General Assembly meeting or any other meeting with WUA board members for incorporation into the WUA plans. This would ensure that all WUA decisions represent the needs of all community members. The findings of the study showed that a large proportion of respondents from Makwawa North (66%) and Makwawa South (68%) indicated that they do not get information on WUA plans in advance which mean that whenever they get a chance to meet WUA representatives which again is very

rare it becomes difficult for them to fully participate. For instance, the findings (see Table 27) have shown that majority of community members do not give inputs or feedback to communication on WUA plans. Meetings can be used as an important tool towards the sustainability of projects. Meetings often indicate the signal of problems and opportunities for the projects at an early stage. Therefore formal meetings are fundamental for the sustainability of community projects to review the implemented strategy and the actual output versus the set output.

5.5.2 Benchmark 2: Scheme/WUA procedures are clear and accessible

It is very important that Water Users Associations ensure that scheme procedures facilitate active community participation rather than act as a barrier. Details of all procedures should be made available publicly in simple and easy to understand language and opportunities provided for explanation and clarification. For example, briefing sessions for community members new to the area or new community representatives.

An evaluation of this benchmark made use of three priority indicators. The first indicator was evidence that bureaucracy is kept to a minimum. The second indicator was evidence that the terms of reference of WUA structures is known by communities. The third indicator was evidence that briefing sessions are provided for members new to the scheme.

In terms of the first indicator, Yorkshire Forward (2000) cites bureaucracy as one of the main barriers to active community participation in the operations of community based entities. Water Users Associations are supposed to have community representatives residing within the user community so that community members are able to access information on demand. In the two schemes all members of the entity's structures like the General Assembly, Board and Tap committees reside within the community. However, the findings revealed that although this is the case, community members in the two schemes cannot meet their representatives directly and on demand without following procedures such as voicing their concerns to the village headman who then arranges meeting with the WUA representatives. These procedures are too bureaucratic and also not stipulated in the WUA constitutions. Moreover, the majority of respondents in the two schemes were women, who previous studies (Mansuri and Rao, 2004) have shown to be victims of systematic exclusion from participatory processes because of their weak 'bargaining power' which could explain the reason for such bureaucratic processes when community members, majority of whom are poor and illiterate women want to voice concerns to their WUA representatives on water supply issues in their villages. This discourages active

participation of women and other disadvantaged groups in operation and maintenance of the schemes.

In terms of the second indicator, Water Users Associations have set of operating procedures in the form of instruments like the constitution which particularly outlines terms of references of each structure, water user rights and institutional legal obligations. Organizational procedures including terms of reference of its various structures should be made available to the public and opportunities provided for review so that the organization remains relevant to the community it is serving (Yorkshire Forward, 2000). However, interviews with water users at household level revealed that majority of ordinary water users in the two schemes do not know the terms of reference for various organs in the Water Users Association. For example only 8% of respondents in Makwawa North and 0% in Makwawa South reported that tap committees are also responsible for sanitation and hygiene promotion as specified in Box 1. The research has shown similar results for other Water Users Association organs, further underlining the fact that there is currently no strong and more effective connection between community representatives and community members as indicated by the confusion on roles and responsibilities of various organs.

In terms of the third indicator, the research findings revealed that apart from the terms of reference and procedures not being made publicly available, the WUA instruments that spell out such procedures (Business plan, Constitution and Memorandums of Understanding with local Councils and Central government) were written in English and not translated into the local language. This further worsens the problem because most community representatives in Water Users Associations have poor command of English language such that they do not even understand some terminologies used in the documents, so cannot explain the operating procedures and principles without confusing community members who also have literacy challenges. This problem could also explain the reason new community members are not briefed on procedures and terms of reference of Water Users Association organs as reviewed by findings of the study (see Table 30).

5.6 Dimension of capacity

This is about developing the understanding, skills, knowledge and the organizational capacity of communities to enable them to take control over assets and decision making. For the purposes of discussion the dimension was unpacked and arranged according to specific benchmarks as reported in the earlier sections.

5.6.1 Benchmark 1: Communities are resourced to participate

The Yorkshire Forward (2000) recognizes that communities need a range of resources to be able to participate on an equal footing with other partners who are often backed by substantial services and expertise, thus developing effective community participation involves a financial investment.

An evaluation of this benchmark made use of three priority indicators. The first indicator was evidence that support and training are provided to enable communities to take control over assets and decision making. Yorkshire Forward (2000) recognizes the need for community determined exit strategies to be developed at an early stage to allow for skills and confidence building and planned transfer of assets and decision making processes.

In terms of partnerships, the study reviewed that Makwawa North and Makwawa South Water Users Associations work in partnership with the District Council, Ministry of Irrigation and Water Development and Ministry of Health. These partners are well endowed with substantial services and expertise. The findings further indicated that the District Council provided training and learning support to both Water Users Associations in order to bring the community representatives on an equal footing with the partner organizations in terms of understanding, skills, knowledge and organization capacity. Manuals and guidelines developed as part of community training packages for Water Users Associations in rural water supply schemes were used to enable transferring of skills and build confidence in communities before transfer of assets and decision making responsibilities.

However, as shown by the findings the two Water Users Associations currently face serious organizational capacity challenges because majority of community representatives in the board of trustees from Makwawa North and Makwawa South respectively indicated that they need more refresher trainings. This implies that they still lack adequate understanding, skills and knowledge to currently take over the assets and decision making processes which endanger long term community led sustainability of the schemes.

Yorkshire Forward (2000) further stresses that all partners (including senior people from the public and private sector) develop the understanding, knowledge and skills to work in partnership and engage community. The findings revealed that prior to establishment of Water Users Associations, members of the District Coordinating Team (DCT) which is a technical committee on water and sanitation received training on the Water Users Association concept by

Ministry of Irrigation and Water Development in 2009 (W. Chirwa, Personal communication, 2014). The DCT proceeded to train frontline workers who subsequently were tasked to facilitate community based training sessions for elected community representatives.

The second indicator prioritized for assessment of this benchmark was evidence that secretariat services are provided for community representatives. As indicated by Yorkshire Forward (2000) part of support to secretarial services should include recruitment of dedicated workers, ideally employed by the communities themselves to support community participation. This might include administrative support, bringing community representatives together before and after meetings to collectively work through agendas and prioritize issues.

The findings revealed that secretariat services to Water Users Association were provided by Government (see Table 32). The secretariat services were a package of entitlements for all rural water supply schemes that were rehabilitated by Government in Zomba district (W, Chirwa, Personal Communication,2014). However, the findings further revealed that the scheme manager employed in Makwawa North who also serves Makwawa South is very dedicated and possess basic skills in plumbing and accounting but have limited basic skills in community mobilization (H.Ngaiyaye, personal communication, 2015). This can have an impact on how the Water Users Associations engage user communities to actively participate in operation and maintenance of the schemes.

The third indicator used for assessing this benchmark was evidence that a pool of resources including technical advice and support is provided for use by the schemes. As earlier mentioned, developing effective community participation involves a financial investment. Training needs should be identified on a regular basis (perhaps annually) and learning programmes set. Follow-up and training support programmes are an effective strategy for ensuring community led sustainability of rural water supply infrastructure and institutions (Prisca Kutengule, Community Participation Specialist-NWDP, Personal Communication, 2015).

According to the rural water supply management model in Malawi, District Water Development Offices are mandated to provide technical advice and support to all Water Users Associations at district level. This responsibility entails monitoring and capacity building of WUAs on a regular basis. However, the findings revealed that the water sector in Zomba District is the least funded among all devolved Government sectors (Table 33) and the current

levels of funding to the sector can hardly support all necessary monitoring and capacity building programmes for eventual success of Water Users Associations in the district. Although the findings (See figure 48) indicated approximately 50% increase in annual expenditure estimates to the sector from the fiscal year 2012/13 to 2013/14 which coincides with the period when Water Users Associations were first established in the district, this increase has no impact on resourcing of monitoring and support programmes for Water Users Associations due to reduced buying power of the local currency in recent years (A. Jaffari, Personal Communication, 2014). An analysis of monthly expenditure reports from the District Water Development office indicated that a greater proportion (70%) of monthly Other Recurrent Transactions (ORT) funding from Treasury is allocated to non-water development obligations such as payment of public utility bills and personal emoluments for hired security guards, leaving limited or no resources for follow-up and support activities of Water Users Associations. This finding is further confirmed by Brown, Perkins and Taylor (1996:85-110) who in their lists of factors contributing to project failure have mentioned among others lack of resources. It is proper that local people should be offered a platform to participate in management of social services, among themselves with external players helping through the provision of necessary resources both technical and material so as to improve their livelihood and ensure development.

Apart from inadequate funding, the sector also has a problem of shortage of human resources such as Water Monitoring Assistants and unserviceable equipment to support mentoring programmes of water user entities in Zomba District (W. Chirwa, Personal Communication, 2014). Besides this there is no evidence collected by the study that local Non-Governmental Organizations in Zomba district provide resources to the District Council for provision of institutional support to the Water Users Associations. Thus as seen above there is evidence that there is limited resources including technical advice and support provided for use by the schemes to promote community participation.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions and recommendations of the study. In conclusion the chapter seeks to answer the question, ‘Do Water Users Associations promote active community participation in operation and maintenance of rural gravity fed piped water schemes in Zomba District’? The chapter seek to answer the question by considering whether the Water Users Associations under study have met the baseline benchmarks of community participation that were used to evaluate community participation in the Makwawa North and Makwawa South rural Water Users Associations in the district.

This chapter proceeds by making recommendations on how to improve Water Users Associations so as to make them more effective in promoting active community participation.

6.2 Conclusion

In general, findings of the study suggest that Water Users Associations have not been able to promote active community participation in operation and maintenance of rural gravity fed schemes in Zomba District.

6.2.1 Dimension of influence

In terms of involvement of communities in shaping of plans and in all decision making processes, the study has shown that the communities are not playing an active part and have no significant degree of power and influence.

The findings have revealed that just as before the inception of the WUA concept, communities are not being recognized and valued as equal partners. There is evidence that although the existing community capacity to implement projects is recognized in all the schemes, the contributions are mainly in labour which constitutes the lowest level of participation. Furthermore, there is no community involvement in needs assessment and ideas of community members are not part of the development of WUA plans.

The findings have revealed that there is no meaningful community representation on all decision making bodies. There is evidence that although community representatives are elected by the community, they are not accountable to people who elected them. Furthermore, community representation in the WUAs does not reflect the diversity of the local communities and decision making is not open and participative.

The findings have revealed that all community members have no opportunity to participate. There is evidence that although there is an awareness of various creative ways of engaging community members in dialogue about their needs, nothing in reality is put into practice. In addition, community members have shown not to be aware of the scope of their influence over community representatives in the WUA. Furthermore, the findings revealed that although communities pay monthly contributions for scheme operation and maintenance, they do not participate in decisions on how scheme revenue and water resources should be utilized in their villages hence no meaningful participation in scheme affairs. Evidence collected also revealed an awareness of barriers to community participation by various stakeholders including Community members but there is lack of commitment or resources to address these issues.

The findings have revealed that communities have no access to and control over resources. There is evidence that community members cannot easily access decision makers and scheme workers in the Water Users Associations. Furthermore, communities have no control over scheme funds and there is no an agreed proportion of scheme revenue committed for community led projects.

6.2.2 Dimension of inclusiveness

In terms of ensuring that all groups and interests in the community can participate and ways in which the community inequality is addressed, the findings have shown that the two Water Users Associations are not inclusive and do not provide equal opportunities to disadvantaged groups to participate.

The findings have revealed that just as before the establishment of the WUAs, a range of people especially women, youth, elderly and the disabled do not feel involved though their water services needs are being met. There is evidence that women are not involved in planning water resources issues and any other decision making process and that other disadvantaged groups, such as disabled people, youth and the elderly are either not in the

committees or there is no formal way of hearing their voices and concerns. Other evidence revealed that scheme funds do not get directed at the needs of the most marginalized communities.

The findings have revealed that equal opportunity policies are not in place or implemented. There is evidence that there are no deliberate mechanisms for inclusion of diverse or special groups in decision making or enforcement of such policies. Other evidence revealed that no partner agency has provided support and training around equal opportunities and anti-discriminatory practices and development of appropriate policies hence due to their absence they cannot be implemented.

6.2.3 Dimension of communication

In terms of developing effective ways of sharing information with communities and clear procedures that maximize community participation, the findings have shown that the WUAs have no two-way information strategies and procedures are not clear and easily accessible by the community.

The findings have revealed that information is not provided in plain and relevant languages and in a variety of forms. There is evidence that information generated by the scheme manager is written in English language and uses jargon therefore useless to communities who have poor command of English and less familiar with technical terms in water supply and finance.

The findings further revealed that information is not circulated from, to and within the community. There is evidence that WUAs do not have proper procedures for sharing information with the community about water supply issues in the scheme such that community members do not even know what happens to the money they contribute for operation and maintenance.

The findings revealed that communities are not informed in advance of WUA planning processes and activities to enable participation. There is evidence that communities do not get informed about WUA plans in advance and opportunity to give feedback or inputs on any information is not provided.

The findings revealed that the WUAs are too bureaucratic. There is evidence that community members in the two schemes cannot meet with their representatives directly and on demand

but have to follow procedures such as voicing their concerns through the village heads who then arrange for meetings with the WUA representatives. The findings further revealed that term of reference of WUA structures are not known by the community members. There is evidence that communities confuse roles of different structures of the WUA and that briefing sessions on terms of references and procedures to new members of the scheme are not made.

6.2.4 Dimension of capacity

In terms of developing the understanding, skills, knowledge and the organizational capacity of community members to enable them to take control over assets and decision making, the findings have shown that there is limited support in the post-establishment stage from partners to the WUAs to enable them to effectively take control over assets and decision making.

The findings revealed that although in the initial stages support and training was being provided, limited efforts are being put into post-establishment stages making the WUAs to be less effective in their control over assets and decision making processes. There is evidence that partners such as the District Water Development Office who are mandated to play an oversight role over WUAs have inadequate resources such that are incapable of providing adequate follow-up and support services as a strategy for strengthening skills, knowledge and organizational capacity of communities to enable them to effectively take control over assets and decision making processes. The study has revealed that there is no direct support from relevant Non-Governmental Organizations in this sector for improvement of WUAs in the district.

6.3 Recommendations

In order for Water Users Associations to effectively promote active community participation in operation and maintenance of rural gravity fed piped water schemes in Zomba District, the following recommendations are made:

1. It has been observed that bureaucracy is one of the barriers to community participation in operation and maintenance of the two schemes. For instance community members cannot access representatives in the Water Users Association on demand. It is recommended that Water Users Associations must provide a range of opportunities through which community members including those that are traditionally under represented can influence decision making e.g. open forum
2. Findings of the study have revealed that community members do not have an opportunity give feedback on any decision made in the scheme. It is recommended

- that Water Users Associations must develop some ground rules for good practice which should include responsibilities for feedback on any decision made.
3. Government must ensure that frontline staff involved in working with Water Users Associations must have an understanding of participative processes which facilitate sharing of ideas and experiences. The aim is to maintain participation by supporting community network development and remaining in contact.
 4. It has been observed that although there is prior budgeting of scheme revenue community members are not involved in how the funds must be utilized. It is recommended that community members must have some ownership over scheme funds by making sure that a certain agreed percentage of revenue is retained at village level under the stewardship of tap committees for maintenance of communal water points which the study has observed to be in poor physical state and other village level scheme projects especially those targeting marginalized community members.
 5. It has also been noted that scheme workers and community representatives in the Water Users Associations are not accountable to the community members. It is therefore recommended that the District Council should empower local communities through involvement and training in rural areas participative village appraisals of performance of water user entities. Community score cards model (Community Based Participatory Monitoring and Evaluation tool) have proved to be more effective at stimulating social accountability by service providers in community led development projects in Malawi.
 6. It has also been noted that the one-off training that community representatives undergo is inadequate to enable communities to take over assets and decision making responsibilities. It is recommended that the District Council and other partners should ensure that regular monitoring and support programmes are conducted taking into account community capacity needs. An effective capacity building and support programme should be preceded by a consultative process and needs assessment for identification, evidencing and interpretation of community capacity needs.
 7. Water Users Associations should actively work towards participation of identified marginalized groups in the community. The first step is to develop a local policy on anti-discrimination and equal opportunity for all. It can be more helpful to start with a simple policy and build upon it rather than adopting one that is so complex that nobody can understand. The District Council and other partners should support the schemes through training and development of such policies.

8. It has also been observed that scheme procedures stipulated in documents such as constitution and business plans for Makwawa North and Makwawa South Water Users Associations are written in English and only accessible by community representatives. It is therefore recommended that details of all procedures should be publicly made available in clear and easy to understand language and opportunities be provided for members new to the area to get briefed on all procedures and opportunities provided for clarification and explanation.
9. Participation can be hampered if communities do not know what is going on at the scheme level but also if one organ of the WUA be it General Assembly or board does not know what another is doing. It is therefore recommended that Water Users Associations should develop a strategic approach to information collection and dissemination and one approach to developing a strategy is to ask community members what confuses them and what they would like to know and then take it from there.
10. In general it is recommended that when establishing Water Users Associations, Government and other partners should ensure that community determined exit strategies are developed at an early stage to allow for skills and confidence building and planned transfer of assets and decision making processes.

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APPENDICES

APPENDIX 1: HOUSEHOLD QUESTIONNAIRE

Respondent ID [| | | | | | | |]

EVALUATING THE EFFECTIVENESS OF WATER USERS ASSOCIATIONS IN
PROMOTING ACTIVE COMMUNITY PARTICIPATION IN OPERATION AND
MAINTENANCE OF RURAL GRAVITY- FED PIPED WATER SUPPLY SCHEMES IN
ZOMBA DISTRICT, MALAWI

A. BIO-DATA			
	Name (optional)	.....
	WUA	.....
	Village	.....
	T/A	.....
B. SOCIAL ECONOMIC INFORMATION			
SE1	Sex	Male.....	1
		Female.....	2
SE2	Age	| _____ | Years (Record)	
SE3	Marital Status	Married.....	1
		Widowed.....	2
		Divorced.....	3
		Single.....	4

SE4	Highest education Qualification	No School..... 1 Primary School..... 2 Secondary (JCE)..... 3 Secondary (MSCE)..... 4 Tertiary..... 5						
SE5	Occupation	Farmer..... 1 Casual 2 Labour..... 3 Salaried Employee..... 4 Other (Specify).....						
C. ACCESS TO WATER SUPPLY SERVICES								
No.	Question	Response						
A1	What are your sources of water for domestic use? (Multiple Response Possible).	Piped..... 1 Borehole..... 2 Protected Well..... 3 Unprotected well..... 4 River..... 5 Other (specify).....						
A1b	Rank the 3 most important sources Start with the most important	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	1	2	3			
1	2	3						
A2	Other than domestic use, what other activities do use the water apart from the source mentioned above?	Irrigation..... 1 Building..... 2 Other (specify).....						

A3	Who owns this water source(s)?	Government Community Neighbour Self Other specify	1 2 3 4
A4	How far away is your nearest water source? (Specify source if more than 1 was chosen above)	Less than 500m 500m More than 500m	1 2 3
A5	Do you have any problem with the distance to this water source?	Yes No	1 2
A6	Is the water sufficient to meet your daily needs? If not why?	Yes No	1 2
A7	Do you pay anything to access water from this source?	Yes No	1 2
A8	If yes, how much do you pay?	Record Amount [MK_____]	
A9	When do you pay?	At each visit to water source Monthly Other (Specify)	1 2 3
A9b	Where do you pay?	Water Users association Chief Other Specify	1 2 3

A10	Are the water supply services better than before the WUA was established?	Better (satisfied)..... Same (indifferent)..... Worse (Dissatisfied).....	1 2 3
A11	Would you be willing to pay more than what you are paying now?	Yes..... No.....	1 2
A12	Do you think the community has the capacity to sustain the water supply?	Yes..... No.....	1 2
D. COMMUNITY INVOLVEMENT IN SCHEME PLANNING (Initial and Present)			
P1	Who was responsible for planning of water supply activities in this village before the WUA was established?	Village head..... Government..... Scheme committee..... Don't know.....	1 2 3 4
P2	Were you involved or consulted when decisions were being made by those responsible at that time?	Yes..... No.....	1 2
P2b	If yes, how were you involved? Explain	..... .....
P3	Were you or any members of this village consulted when the WUA was being established?	Yes..... No.....	1 2

P4	If yes who consulted you?	Village head Government officials Others (specify)	1 2 3
P5	Were you given an opportunity to give your input/ ideas into the WUA as part of this consultation process?	Yes No	1 2
P5b	If yes, were these ideas taken into account or incorporated into the scheme/WUA?	Yes No	1 2
P6	What were the issues which were discussed during the consultation? <i>(Record responses in Spaces provided)</i> <hr/>	

P7	Other than this, were you involved in any planning of the WUA and how it will operate?	Yes No	1 2
P8	Were all categories of the members of this village including women, girls, youth, poor and other often less represented and disadvantaged people given an opportunity to give their input/ ideas into the WUA as part of this consultation process?	Yes No	1 2
P8b	If yes, were these ideas taken into account or incorporated into the scheme?	Yes No	1 2
P9	Are you now involved in developing plans for the WUA?	Yes No	1 2
P9b	If yes how? <i>(Record response in space provided)</i>	..... ..... .....
P10	Are all categories of the members of this village including women, girls, youth, poor and other often less represented and disadvantaged people now involved in	Yes No	1 2

	developing plans for the WUA?		
P10 b	If yes how? <i>(Record response in space provided)</i>	..... ..... .....
P11	At the village level were you involved in planning how the water resources will be managed and operated?	Yes No	1 2
P11 b	If yes how? <i>(Record response in space provided)</i>	..... ..... .....
P12	Are you now involved in developing plans on how water resources will be managed and operate at the village level?	Yes No	1 2
P12 b	If yes how? (Record response in space provided)	..... ..... .....
P12 c	If not why? <i>(Record response in space provided)</i>	..... ..... .....

P13	Are all categories of the members of this village including women, girls, youth, poor and other often less represented and disadvantaged people now involved in developing plans on how water resources will be managed and operate at the village level?	Yes No	1 2
P13 b	If yes how? <i>(Record response in space provided)</i>	..... ..... .....
COMMUNITY INVOLVEMENT IN IMPLEMENTATION			
I1	How did the water supply reach your village? Explain <i>(Record response in spaces provided)</i>	..... ..... .....
I2	What role did you or other members of this village play for the water supply to reach your village?	Helped dig trenches Helped lay pipes Cooked food for work force Other (Specify)	1 2 3
I3	Are you involved in any way in management of water resources/ points in this village?	Yes No	1 2

I3b	If yes how? <i>(Record response in space provided)</i>	..... ..... .....
I4	Who else manages water resources/ points in this village?	Village head VDC WUA Others (Specify)	1 2 3
I5	(If WUA has not been mentioned) is there a water management committee in this village?	Yes No	1 2
I6	(If WUA is mentioned)What are qualities or qualifications for a candidate of the WUA? <i>(Record response in spaces provided)</i>	..... ..... .....
I7	What is the composition of the WUA? <i>(Record response in spaces provided)</i>	..... ..... .....
I8	Did the WUA receive any training?	Yes No Don't Know	1 2 3

I9	Are there mechanisms for inclusion of diverse groups or special arrangements for inclusion of special categories e.g. women, girls, youth, poor and other often less represented and disadvantaged groups in the WUA?	Yes No	1 2
I10	Are they included in practice?	Yes No	1 2
I11	How are the members selected and who selects them? <i>(Record response in spaces provided)</i>,	
I12	Who influences or nominate them for election?	WUA Management Government workers Community members Village headman Other, (specify)	1 2 3 4
I13	Is there a system of recalling or replacing them?	Yes No	1 2
I14	Are there any benefits for the WUA members e.g. allowance?	Yes No	1 2

I15	To who does tap committees report?	Government workers..... Village headman..... Community Other, specify.....	1 2 3
I16	Who assess or appraise performance of WUA? <i>(Record response in spaces provided)</i>	Government workers..... Village headman..... Community Other, specify.....	1 2 3
I17	(if community is not mentioned) Is the community involved during the assessment or appraisal of WUA?	Yes..... No.....	1 2
I18	How are decisions arrived at? Does it involve everyone or the WUA members makes decisions on their own?	Only community representatives.. Everyone..... Other, specify.....	1 2
I19	Is it possible to meet with community representatives in the WUA on demand?	Yes..... No.....	1 2
I20	If not why? (Provided response in the spaces)	..... ..... .....
I21	What are the roles of tap committees?	..... .....

	<i>(Record response in spaces provided)</i>	.....
I22	What are the roles of the WUA board and General Assembly? <i>(Record response in spaces provided)</i>	..... ..... .....
I23	(If not mentioned) who is responsible for maintenance of the water supply system and points?	Local Utility Operator..... Water Committee..... WUA Board..... Other (specify).....	1 2 3
I24	Do you or anyone in this village have access to scheme workers or Local Utility Operator?	Yes..... No.....	1 2
I25	Who is responsible for collection of financial contributions or revenue?	WUA Board..... Revenue Collector..... General Assembly..... Tap committee..... Other (specify).....	1 2 3 4
I26	Who decides on how the revenue should be used?	Community members..... Water Committee..... WUA Board..... Don't know.....	1 2 3 4
I27	Are you or users in general involved in making decisions about how the money collected should be used?	Yes..... No.....	1 2

I28	If they do, is there an agreed % of scheme revenue committed to community led projects such as maintenance and replacement of worn out bib taps or line extensions?	Yes..... No.....	1 2
E. COMMUNICATION			
C1	Were people communicated or made aware of what is happening at any/every stage in the scheme before the WUA was established	Yes..... No.....	1 2
C2	Were financial and other records made publicly available and also communicated in simple and understandable forms before the WUA?	Yes..... No.....	1 2
C3	Are people informed of decisions that have been made by the committee or WUA Board?	Yes..... No.....	1 2
C4	Are financial and other records made publicly available and also communicated in simple and understandable forms by the committee/WUA board?	Yes..... No.....	1 2
C5	Do committees and WUA representative communicate information from the top to other users?	Yes..... No.....	1 2
C6	Do committees or WUA	Yes.....	1

	representatives communicate scheme plans and activities in advance to enable participation?	No	2
C7	If yes, Is this communication continuous and deliberate or does it require prompting by community members	Yes No	1 2
C8	Do the people give their feedback or input in this communication?	Yes No	1 2
C9	Can people suggest alternatives to the committee if they notice or face challenges with what is being proposed or done?	Yes No	1 2
C10	If they do, is this taken into account by the representatives?	Yes No	1 2
C11	If yes how? <i>(Record response in space provided)</i>	<hr/>	
C12	Do you know that you have a right to demand information from your representatives in the committee or WUA board?	Yes No	1 2
C13	Do people have a chance to ask the community representatives to communicate information when they feel they need such information?	Yes No	1 2

C14	Do people in practice request for such information?	Yes	1
		No	2

END OF INTERVIEW

APPENDIX 3: KEY INFORMANTS INTERVIEW GUIDE

EVALUATING THE EFFECTIVENESS OF WATER USERS ASSOCIATIONS IN PROMOTING ACTIVE COMMUNITY PARTICIPATION IN OPERATION AND MAINTENANCE OF RURAL GRAVITY- FED PIPED WATER SUPPLY SCHEMES IN ZOMBA DISTRICT MALAWI

GOVERNMENT PERSONNEL

	NAME	SEX	POSITION	ORGANIZATION

1. How was the community mobilization done in the initial stages conducted?
2. Were local communities given an opportunity to choose the kind of management model they want for their system? Explain.
3. If yes, how were issues of sustainability of the system addressed during these consultations
4. Were the local Communities empowered with knowledge and skills necessary for making informed decisions on operation and maintenance of the systems?
5. How are you ensuring that all partners (including senior people from the public and private sectors), develop the understanding, knowledge and skills to work in partnership and engage with communities?
6. What kind of external support do local communities get from partners including District Council?
7. Explain some significant institutional challenges in the WUAs that affect active local community participation in operation and maintenance of rural piped water supply systems?

END OF INTERVIEW

APPENDIX 4: LIST OF KEY INFORMANTS

Prisca Kutengule, Community Participation Specialist, National Water Development Programme: Lilongwe, *Personal Communication*, November, 2014.

George Makasu, Water Monitoring Assistant, Zomba District Council: Zomba, *Personal Communication*, November, 2014.

Henry Ngaiyaye, Deputy District Water Development Officer, Zomba District Council: Zomba, *Personal Communication*, November, 2014.

Willard Chirwa, Director of Planning and Development, Zomba District Council: Zomba, *Personal Communication*, November, 2014.

Andrew Jaffari, Director of Finance, Zomba District Council: Zomba, *Personal Communication*, November, 2014.

Enoch Linje, District Community Development Officer, Zomba District Council: Zomba, *Personal Communication*, July, 2015.

Mac Pherson Kuseli, Water Monitoring Assistant, Zomba District Council: Zomba, *Personal Communication*, July, 2015.

APPENDIX 5: PHYSICAL WATER POINT OBSERVATION CHECKLIST

No.	NAME OF SCHEME:.....	VILLAGE:.....
1	Water facility functionality	1. Yes 2. No
2	Tap apron present	1. Yes 2. No
3	Condition of tap apron	1. Good 2. Bad
4	Sanitation condition	1. Poor 2. Average 3. Good 4. Excellent
5	Water delivery rate	1. Poor 2. Average 3. Good 4. Excellent
6	Number of people served by water point per hour	Record figure:.....
7	Number of people on queue during pick hour	Record figure:.....
8	Average time spent to draw water from the water point	Record Figure:.....
9	Water Quality in terms of colour	1. Good 2. Fair 3. Poor
10	Water Quality in terms of taste	1. Good 2. Fair 3. Poor
11	Distance of Water point to waste disposal site	1. Short 2. Long (safe)

**APPENDIX 6:LIST OF VILLAGES FOR INDIVIDUAL HOUSEHOLD
INTERVIEWS**

No.	VILLAGE	GVH
SCHEME: MAKWAWA NORTH		
1	Kantunda	Mtwiche
2	Napulu	Mtwiche
3	Luwungu	Mtwiche
4	Lusiyu	Mtwiche
5	Yoyola	Ntogolo
6	Sani	Ntogolo
7	Kili	Ntogolo
8	Nyamuka	Mtogolo
9	Magwira 1	Ntogolo
10	Ntogolo	Ntogolo
SCHEME:MAKWAWA SOUTH		
1	Mpesi	Ntogolo
2	Ngalango	Ntogolo
3	Mponda	Ntogolo
4	Kapyepye	Ntogolo
5	Onga	Chopi
6	Ntamba	Chopi
7	Ibu	Chopi
8	Paulosi	Chopi
9	Nkhaziko	Chopi
10	Chopi	Chopi